

THE TENSION BETWEEN FAITH IN CREATION AND EVOLUTIONARY SCIENCE

How Should Religious Education Respond?

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The following essay is based on a presentation made to an International Symposium on “Religion and Science in Dialogue: The Consequences for Religious Education,” held at the Nanzan Institute for Religion and Culture on 29–30 January 2016.

AT FIRST glance, the title of this article may sound like it combines two different topics, the relationship between faith in creation and evolutionary science on the one hand and educational perspectives on the other hand. It would then imply that I first discuss views from theology and science in the sense of content matter and that I would then proceed to the tasks for teaching and learning that follow from this discussion.

While it is certainly necessary that theologians and philosophers of science continue their debates and hopefully also their cooperation, my own approach will be different. I will make an educational perspective my starting point from the beginning by focusing on children and youth. Most of all I will pursue the question how children and youth view the relationship between faith in creation and evolutionary science.

The reason for taking this approach rather than making theological and philosophical debates my starting point is easy to understand. Psychological and educational research has shown that children and youth have their own ways of interpreting the world (cf. SCHWEITZER 2011). It is not the case that their understanding just consists of simplified versions of theological or scientific views but their understanding often follows a logic of its own.

One of the pioneers of this way of appreciating children and youth as philosophers and theologians was the Swiss psychologist Jean Piaget (cf., for example, PIAGET 1929) with his pioneering studies on children’s ways of viewing the world. Although some of his psychology is considered dated, his basic approach is still quite useful concerning questions of faith and science. If children, for

example, imagine the world to be like a huge building, with several levels or floors, this understanding will inevitably have far-reaching implications for their understanding of creation as well (see my earlier publications on the relationship between science and religion in the context of education, SCHWEITZER 2008, 2012, and 2013).

One of experiments that have left a lasting impression on me, aimed at stimulating children and youth to give an account of their actual image of the world. They were asked the question: “Where does a rocket fly that is started on the earth?” Verbal answers were not allowed. Instead the children and youth had to draw a picture (FETZ 1985). Two impressive patterns emerged from the analysis of these pictures:

- ⊙ The pictures drawn by the children in this experiment indicate that younger children—in this case at the age of six or seven years—tended to draw pictures of a world consisting of the earth from where the rocket started, and a sky or heaven as a separate space high above the earth. This space is often inhabited by various figures, like angels, Jesus, Mary, and, possibly, God. The rocket would actually not get into that heavenly space but would fall back down to the earth. In some cases, the children also added the hell as a location underneath the surface of the earth.
- ⊙ Older children and younger adolescents (beginning around the age of 10 to 12 years) came up with completely different pictures. The world they referred to, did no longer have any similarity to a house but really had turned into a cosmos or huge open space. In these pictures, there were planets and galaxies, while the rocket starting from earth would fly into the endless space in order to never return. Some children also put God into their pictures but the figures they came up with as representing God looked rather lost vis-à-vis the universe.

What seems to have happened between the two pictorial ways of responding to the interview question about the rocket is a cognitive revolution concerning the children’s worldview—from children’s free imagination to a view that is at least somewhat closer to the representations offered by science. The ensuing challenge for the children is how to transform their religious images and ideas in line with the universe as they perceive it beginning in late childhood or early adolescence. This universe clearly has no more space for the God of their childhood days because the separate space above the earth no longer exists.

Based on studies of this kind I repeat my guiding thesis: If religious educators want to successfully address the issue of faith and science, they have to make the understandings actually held by children and youth their starting point. Otherwise they will run the risk of transmitting information that the children will not be able to process—at least not in the sense of connecting it to their existing

understandings which, in turn, is generally considered a precondition for any type of successful learning.

My next two sections will therefore focus on these understandings while the final section will consider consequences for religious education concerning the relationship between religion and science.

Attitudes of Children and Youth towards Creation and Evolution

In this section, I start out with the question of attitudes because such attitudes can be researched in large-scale studies aiming for representative results. Attitudes in this sense are the personal presuppositions for responding to certain questions in a questionnaire.

For example, in one of our recent German studies we asked 14 years old adolescents what they think about the statement “God created the world” (cf. SCHWEITZER et al. 2015A, 296; 2015B, 367). Our sample consisted of confirmands with the Protestant Church in Germany, i.e., adolescents who voluntarily participate in a typically one-year program that culminates in the celebration of confirmation. We aimed at a representative sample. With about 10.000 adolescents responding, this aim was clearly reached. But how did the young people respond? At the beginning of confirmation time, the approval rate for the item “God created the world” was 46% (SCHWEITZER et al. 2015A, 296; 2015B, 367). In other words, the majority of these adolescents participating in the confirmation program of the church do *not* believe that God created the world. This figure also did not change during the year of confirmation work in which the young people participated, but remained at 46%.

In addition to the study carried out in Germany, we conducted an international study in eight additional European countries (with more than 25.000 adolescents responding, SCHWEITZER et al. 2015B). The Methodist Church in Germany also participated in this study which consequently covers nine countries plus the Methodist Church (EmK). Only in two countries—Hungary and Poland—and in the Methodist Church did we encounter higher approval rates for faith in creation than in the study carried out in other Protestant churches in Germany. In other countries, the approval rate was much lower, with, for example, 22% in Sweden. Table 1 shows the results for the whole set of questions relating to Christian belief in this study.

The results presented in Table 1 can be considered valid and representative. A similar study conducted five years earlier showed comparable tendencies although the values were slightly higher then (cf. SCHWEITZER et al. 2010). For example, the item “God created the world” received 49% agreement in the earlier German study (SCHWEITZER et al. 2010, 308). It is also interesting to see that faith in creation is much less wide-spread than faith in God in general (CE09).

Table 1: Christian belief (at the beginning of confirmation time): “yes” in percentages

	DE	AT	CH	DK	FI	NO	SE	PL	DE, EmK	HU
CEo1 God created the world	46	45	33	37	24	35	22	92	80	77
CEo2 There is a life after death	52	57	52	56	36	46	56	86	75	74
CEo3 God loves all humans and cares about each one of us	66	66	53	64	46	60	55	93	90	85
CEo4 Jesus has risen from the death	52	59	37	42	31	40	27	96	85	80
CEo5 I am not sure what I should believe	31	31	38	35	31	44	47	15	24	25
CEo9 I believe in God	68	71	51	67	35	46	30	92	90	86
CEo8 Faith in God helps me in difficult situations	44	46	34	33	25	30	21	88	75	75
CEo10 I know what the Christian faith entails	53	54	46	45	41	51	41	88	45	64

N=353–10,075 DE=Germany, AT=Austria, CH=Switzerland, DK= Denmark, FI=Finland, NO=Norway, SE=Sweden, PL=Poland, EmK=Methodist Church in Germany, HU=Hungary

The double line separating EmK and HU data from the other columns indicates that these data could not be fully integrated in the study, due to the different situation in this church (EmK) or technical problems (HU). Adapted from SCHWEITZER et al., 2015B.

In sum the results from these studies show that faith in God the creator is only shared by a minority of young people at least in western Europe. Moreover, this minority appears to become smaller over the years. A comparison of the responses for the different items also shows that faith in creation belongs to the questions that are most difficult for the adolescents. They tend to raise less doubt with faith in God in general which indicates that the relationship between religion and science plays a special—and, generally speaking, problematic—role for them.

From this observation that could be corroborated by quoting additional studies a first set of challenging conclusions can be drawn:

First, the academic dialogues between theology and science with their impressive attempts of overcoming the tensions and contradictions between faith in creation and evolutionary science (overview: WELKER 2014; also see JANOWSKI, SCHWEITZER, and SCHWÖBEL 2010), obviously have not reached the majority of today’s young people, at least in Europe. There is a big gap between the academic discourse on this topic and the everyday world of adolescents.

Second, education and specifically the schools at least in Europe are not successful in teaching for a balanced understanding that has space for both, faith

and science. It may even be the case that it is not only success which is lacking in this respect. Schools may not even be working in this direction—an assumption that goes beyond the results presented but which can be based on individual reports from former pupils.

Third, while some popular critics of creation faith like Richard Dawkins (DAWKINS 2006) might actually celebrate the results quoted above as evidence for the final victory of scientific truth and enlightenment over what they call superstition, more considered views from science may lead to more cautious evaluations as well. Has evolutionary science just been popularized to the degree that it has turned into a new kind of untested prejudice against religion?

Sometimes children put it in the following way: ‘What do you believe in, the origin from Adam and Eve or the origin from the apes?’ In this case, science has actually been turned into a certain kind of faith. There is no triumph of enlightened views in this, just the encounter between two kinds of faith. This is not satisfactory, neither for science nor for religion. Yet it seems to be a wide-spread reality in today’s Europe.

How Children and Youth Are Making Sense of Creation and Evolution

The questionnaire-based research on attitudes concerning faith in creation allows for representative results concerning the general population, in the present case, the population of children and youth. The respective research procedures are quantitative, mostly based on predefined answers in questionnaires. For education, however, such results are certainly important but they are not sufficient for developing strategies for teaching and learning. Learning processes must be tailored to the ways in which children and youth are making sense of the relationship between creation and evolution. Otherwise they will fail to effectively address, and to advance, their abilities.

This is why I will now draw on two additional approaches that are based on qualitative methodologies, first, developmental psychology and second, theology with children and youth.

Developmental psychology

In terms of developmental psychology, the most important research was carried out by a Swiss team of researchers, Reto Luzius Fetz, Karl Helmut Reich and Peter Valentin. Their study followed the lead of Piaget mentioned in my introduction but took a broader approach in a number of important respects, among others, concerning the relationship between religion and science (FETZ, REICH, and VALENTIN 1992, 2001). It is based on oral interviews with children and adolescents. The interpretation of the results makes use of the concept of

artificialism, in the sense of the world as an artefact, i.e., as something that has been ‘made’ rather than ‘emerged’ or ‘evolved’ by itself.

According to their results, children tend to understand creation as a process in which the world was ‘made’, similar to other processes of human fabrication but at a different scale. The authors call this artificialism naïve because it is not the result of an intentional process of reflection but rather something like a natural or spontaneous assumption that children take for granted. This naïve artificialism was found mostly with children between the ages of 5 and 13 years.

For example, responding to the question what God has created, Nina, a five and a half years old girl, said “the sky scrapers”. Asked why she thought so, she stated as her reason that humans “could not make such tall ladders” (FETZ, REICH, and VALENTIN 1992, 117). Children at this age see God as responsible for the necessary building material as well as for the food and for the drinks.

Fetz, Reich and Valentin see a first developmental step within this artificialist thinking when children only view as “God’s work” what does not show “traces of human fabrication and of human use of tools”. At this stage God’s creative activity no longer is at the same level with human fabrication. Now God “is the one who makes ‘the big things’” and it is these things “on which the humans have to depend, what comprises the realm of human living and working and makes it possible. God now creates most of all that world in which the humans can live and make a home. God shapes the earth with its mountains, rivers and lakes, makes the plants grow and the animals come into being. In all of this, God has the flourishing of the humans in mind” (FETZ, REICH, and VALENTIN 1992, 119).

Approximately towards the end of the first decade of life this naïve artificialism begins to dissolve. One reason for this is the influence of popularized science. Most of all the “assumption of an infinite cosmos” plays a role in this context because children argue that such an “infinite cosmos” could not be made by God. They say, for example, that God would never come to an end with it (FETZ, REICH, and VALENTIN 1992, 120).

Yet how do children or adolescents arrive at an understanding of creation that is not just naively based on the model of human fabrication? What are the preconditions for such a step? And how can they arrive at an understanding that holds together faith in both creation and science? Perhaps the most important finding of the study by Fetz, Reich and Valentin can be seen in the distinction between a type of reflexivity that refers to objects in the world and another type that refers to the means of human knowing and thinking. They call the first type “object-reflecting reflexivity’ while the second type is called ‘means-reflecting reflexivity” (FETZ, REICH, and VALENTIN 1992, 122; also see REICH 2002, 29).

A “considered understanding of creation” that, in adolescence and adulthood, should replace children’s naïve understanding, can only be achieved once adolescents start to think about thinking. In other words, once they become



aware of the need to raise questions concerning not only the objects in the world but also about their own ways or means of thinking and knowing. At least in a non-academic manner, adolescents then begin to grapple with issues of epistemology and of theories of science by consciously distinguishing between the types of knowing in science and the types of knowing in religion or theology.

Especially Reich has also done extensive work on what he calls “thinking in terms of complementarity” or “relational and contextual reasoning” (REICH 2002).

This reasoning means the ability to understand that apparently contradictory views and explanations of certain phenomena or processes are nevertheless meaningful and needed. The term complementarity in this sense is taken from physics where it applies, for example, to different scientific explanations of light, on the one hand as waves and on the other hand as particles. Yet Reich, originally a physicist himself, applies the term to the relationship between creation and evolution and traces the development of thinking in complementarity empirically through childhood and adolescence (REICH 2002, 116–32).

Two of his findings are of special interest in our present context. First, he was able to identify a clear trajectory for the development of thinking in complementarity. Second, this thinking again depends on the acquisition of means-related or epistemological reflexivity.

Developmental models like that presented here still play an important role for religious education, though the stage-like development of certain ways of interpreting the world have been widely questioned (for a summary and discussion cf. OSMER and SCHWEITZER 2003). In today’s educational understanding, children and adolescents are commonly expected to show more variety in their views and not to follow clear stages in their development. This is why more recent German studies put more emphasis on scrutinizing young people’s understanding of science and creation with more open approaches, in order to design typologies instead of stage models. If only in brief, I present some examples:

Christian Höger identified six different types of viewing the relationship between creation faith and science (HÖGER 2008). These types depend on two variables, the understanding of science on the one hand and the understanding of creation on the other. Table 2 shows the construction of this typology as well as the actual occurrence in Höger’s qualitative data.

Table 2: Types of viewing the relationship between creation faith and science

	Faith in creation	Openness to creation	Refusal of creation
Faith in science	x	x	x
Openness to science		x	x
Refusal of science	x		

Adapted from HÖGER 2008, 195

In this model, there are two areas of knowledge and abilities involved, the ability to interpret and evaluate scientific views and the ability to interpret and evaluate the meaning of creation faith. Depending on how these variables show up and how they combine in individual children or adolescents, they can be related to a particular type.

In another recent study, Thomas Weiss looked into the ways that older high-school students are able to present the meaning of creation faith and evolutionary theories (WEISS 2015). He often found what he calls incomplete or incorrect statements. For example:

“While the story of the creation of Adam and Eve developed in the Middle Ages, the creation in seven days is much older.” (WEISS 2015, 340)

Or: “Only hundred millions of years after the ‘dominant presence’ of the dinosaurs, the mammals brought about Homo Sapiens who descended from the ape.” (WEISS 2015, 340)

Obviously, the first statement is not correct. The second is also inaccurate here because the understanding of human descent is much too simple.

Theology with children and adolescents

Another aspect in continuation with such qualitative research that is of crucial importance in the present context is related to what has been called the theology with children approach (cf. ZIMMERMANN 2010 and SCHWEITZER 2011). This approach can be understood as coming out of the movement of philosophy with children that started about 50 years ago in the United States. The guiding idea of this approach has been that children are quite capable of pursuing philosophical questions, raising such questions themselves and also finding their own answers to such questions.

This philosophical approach has later been extended to theology as well, including both children and adolescents. Similarly to the philosophy with children, the theology with children has its focus on how children deal with theological questions concerning God and the world. In our present context this means that we have to ask how children view the relationship between creation and evolution. A better understanding of their views is a presupposition for successful education in this regard.

Let me take up two examples from recent studies carried out in Germany.

The first was done by Michael FRICKE, a religious educator (2003). His report refers to conversations with 10 years old children about Genesis 1 and 2. Aspects of creation and evolution came up here with the question of dinosaurs and why dinosaurs are not mentioned in the Bible. One child thought that God “has nothing to do with them”. Another child pointed out that they are mentioned in the Bible at least implicitly: “Dinosaurs are animals! And he says there: ‘and all other animals.’” (FRICKE 2003, 48)

What was of more interest to the children, however, was the question: “Why did it always happen that way when God said it?” Consequently they discussed the question if and how God is the “ruler over the world”. The children came up with a whole number of ideas: God with a remote control like with an electric car or steering by computer commands in heaven. Yet these ideas also met the objection from one of the children: “We are no robots!” (FRICKE 2003, 49–50)

This example shows how children are trying to make sense of the understanding of God as ruler as expressed in the act of creation, by making use of analogies drawn from their own life-world. To some degree, these analogies appear to be helpful, yet they also raise the question of human autonomy and self-determination: “Every human can decide for himself. He does not need to listen to the stupid bloke up there.” (FRICKE 2003, 49)

My second example refers to another study with the same age group. It was carried out by Veit-Jakobus Dieterich, another German religious educator (DIETERICH 2004). Similarly to the first study, the children are wondering about the absence of the dinosaurs in the Bible. One of the children had seen “ape-like humans” on television and was interested in how they might fit with the biblical account of creation. In both cases, with the dinosaurs as well as the “ape-like humans”, the children come up with the same answer: Dinosaurs and “ape-like humans” were earlier than creation, at a time before the time of the humans (DIETERICH 2004 21). Interestingly, this conclusion leads on to more questions raised by the children. Would it be possible that there are different creation stories? After some discussion, the children refused this possibility because they feared that, in the end, there could be thousands of different stories, and this would not make sense.

Let me also summarize this part of my presentation in a number of points.

First, adequate views of the relationship between creation faith and evolutionary theory presuppose higher forms of reasoning that are usually not available in childhood but develop in adolescence and adulthood.

Second, such higher forms of reasoning are based on the ability to interpret and evaluate both, scientific views and faith in creation, not as alternative possibilities between which one has to choose, but as equally valid, although different approaches to the world.

Third, while children may not be able to apply principles like the understanding of complementarity, they are able and interested in developing their own ways of making sense of the relationship between creation and evolution. The theology with children and adolescents approach can be helpful in further nurturing this interest.

Tasks for Religious Education

It will not be possible here to go into the details teaching and learning in the field of religious education and of the different ways of addressing creation and evolution. Instead I want to set forth seven suggestions or demands which are of a more general nature but are still concrete enough for purposes of shaping religious education (for a more comprehensive statement on the nature and purposes of religious education cf. SCHWEITZER 2006; for a major discussion on science and religion in German religious education also cf. ROTHGANGEL 1999).

1. *Closing the gap between the academic interdisciplinary discourse on creation and evolution on the one hand and today's adolescents' understanding of their relationship on the other.*

Closing this gap certainly is the main task for the future in this field. Young people have obviously not become aware of the progress achieved in many interdisciplinary dialogues involving, among others, theology and science. Most of them appear to be unaware of the sophisticated possibilities for bringing together the perspectives of creation and evolution without jeopardizing the integrity of either one.

Yet as important the transfer of knowledge and insights to young people may be, the aim of closing the gap between the academic interdisciplinary discourse on creation and evolution on the one hand and today's adolescents' understanding of their relationship on the other will not be achieved unless religious education or education in general is able and willing to address this topic in a manner that is mindful of young people's special needs and abilities.

2. *Accompanying the development of worldviews from childhood into adolescence and adulthood.*

As has become clear above, children's views of the world are likely to strongly differ from the views of adolescents and of adults. Since both, creation faith and evolutionary theories, are always related to how the world is understood, religious education must adapt its teaching and learning strategies to children's views of the world.

However, educators should not only do justice to the difference between children and adolescents or adults but also to the various transitions that occur during childhood and adolescence themselves. There is not only a single transition that leads to adult understanding but there are a whole number of stages in between.

If we understand education as accompanying the development of worldviews, we must be prepared to meet the particular questions related to a specific developmental stage or phase. We must also be prepared to give new impulses to children and adolescents that fit their understanding but that can also challenge them towards new ways of thinking.

In any case it is crucial that religious education will accompany the children and adolescents through the different stages of phases of their development. Coming to terms with the issue of creation and evolution is not a matter that can be solved at any single time. Teaching them once in this respect clearly is not enough. What is needed instead are long-term continuous educational approaches that, so to speak, grow with the children and adolescents.

3. Supporting new and more complex ways of thinking, for example, on the basis of complementarity.

It seems that this kind of complex thinking is not supported sufficiently by today's schools, at least not in my own country. Teaching most often tends to be within a certain subject, be it in science or in religion. Due to this, the need for bridging different disciplinary approaches is not addressed or at least not in such a way that the pupils can really come to understand it. Moreover, it seems that the existing possibilities for relating different worldviews to each other are not addressed.

The challenge is how to integrate epistemological perspectives and models from the philosophy of science addressing the relationship between different disciplinary views, like theology and science or creation and evolution (cf. ROTHGANGEL 1999). As the research by Helmut Reich and others presented above has shown, the idea of complementarity—the need for explanations that contradict each other—can be a powerful guiding idea for education. Moreover, according to their findings on teaching and learning, it is in fact possible to stimulate and to support the acquisition of respective abilities by making pupils think about, for example, the relationship between creation and evolution.

4. Giving access to different views on both, science and creation.

It is easy to see that children will not achieve an adequate understanding of the relationship between creation and evolution if they are not familiar with both views. Consequently it is completely mistaken to exclude the topic of evolution from the curriculum of the school as fundamentalists would like to see it.

It is also mistaken to uncritically include creationist models to be taught as an apparent alternative view of the origin of species.

What is needed instead is to give children and adolescents a chance to gain insight into the specific perspectives connected to any disciplinary approach. Science works on the basis of hypotheses grounded in what, in the broadest sense of the word, can be measured. The focus on the measurable is its strength but it is also its limitation. Questions of ultimate truth or issues like the existence of God are beyond the scope of science. Theology is of a different nature and follows different purposes. It operates with the presupposition that there is a God and that God's will is important for life on earth.

Understanding the specific nature of disciplinary perspectives is helpful for becoming aware of the inherent strength and weaknesses of each perspective. Moreover, there is the need for familiarizing children and adolescents with the actual meaning of creation and evolution. In many cases, prejudice seems to prevail over accurate knowledge. Current evolutionary theories cannot be reduced to claiming the descent of the human from the ape. Neither can contemporary theological interpretations of creation be reduced to literalistic readings of Genesis 1 and 2. Accurate knowledge on both, creation and evolution is the presupposition of combining the perspectives in a relational manner.

5. Developing models and materials for teaching and learning geared to the relationship between creation and evolution for different age groups.

One way of spreading knowledge and understanding on creation and evolution more widely would certainly be to develop models and materials that are suitable in the present context. The decision about concrete tasks in this respect must, however, be based on a prior analysis of existing models and materials both for availability and quality. It may be supposed that the respective availability differs from country to country. Some models and materials can probably be adapted from other countries and contexts. Yet the development of such models and materials will always remain a task for religious education in a particular country since it is very important that they fit the specific experiences and questions of young people there. Moreover, different educational settings require suitable models and materials.

6. Test the efficacy of such models and materials empirically by investigating the competences acquired by the pupils.

In my own research it has become more and more important to not only rely on so-called good (or bad) experiences from the practice of teaching. In the past, religious educators have almost exclusively relied on this kind of reassurance, i.e., it was assumed that what teachers of religious education report to be

efficient on the basis of their classroom experience, was considered suitable. In the meantime, however, numerous studies from general education have shown that it is quite insufficient to base evaluations on such experience. Only controlled and carefully planned empirical research can show if the respective aims have been achieved.

In our own work at Tübingen we are making use of so-called intervention studies in this context. They include the following procedures:

- ⊙ First, certain lessons that will be taught to a certain group of pupils. This is called the *treatment*.
- ⊙ Second, a group of pupils who are not exposed to these lessons and who do not receive the treatment. This is the *control group*.
- ⊙ Third, a number of *measurements* especially at the beginning and at the end of the intervention that show if the abilities or competences and attitudes of the pupils have really changed. In recent times, an additional measurement some time after the treatment is recommended in order to probe for more long-term effects.

Table 3 shows the design of a standard intervention study.

Table 3: Design of intervention studies

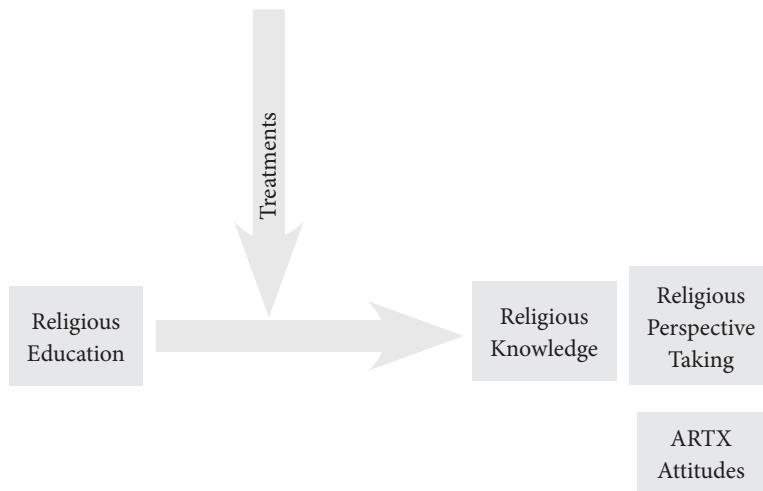
	t ₁	treatment	t ₂	t ₃
Experimental group	x	treatment	x	x
Control group	x	—	x	x

Graphically it looks like Figure 1 on the following page. (The example is taken from an ongoing study on interreligious competence but it would look similar in the case of creation and evolution.)

7. *More research on competences concerning creation and evolution is needed.*

Measuring the outcome of teaching about the relationship between creation faith and evolutionary theory presupposes a competence model on which the measurements can be based. There are good theoretical beginnings in the literature mentioned above on which a competence model could be based. Yet what we is lacking so far, are empirical studies that are needed for discerning the validity of such a model. Maybe developing a competence model referring to relational thinking in the context of creation and evolution would be a task that can best be undertaken in international cooperation, for example, between religious educators in Asia and in Europe.

Figure 1: Design of an intervention study in the field of inter-religious education



The design refers to three components of interreligious competence: religious knowledge, religious perspective-taking, attitudes of religious tolerance and xenophobia.

Conclusion

I started out with a number of skeptical observations concerning today's young people in Europe and their views of faith in creation. We should no longer overlook the fact that, even in the church, it is only a minority of youth who share the belief that God has created the world. From my point of view, such results indicate far-reaching failures of both, education in general as well as religious education.

In my final section on respective tasks of religious education I tried to show that we are not talking about a hopeless case. There are many possibilities that could be used. The academic dialogue between religion or theology and science, it seems to me, has led to very important results and insights. Yet not enough attention has been given to the ensuing question how young people can be familiarized with these insights. This task, however, requires more than just making information available to them. Truly educational efforts are needed here that are based on the cooperation of developmental psychology and religious education. Only an approach that takes seriously the different worldviews of children and adolescents will be able to achieve the aim of more balanced and more refined understandings. I end by repeating my guiding thesis one more time:

If religious educators want to successfully address the issue of faith and science, they have to make the understandings actually held by children and youth their starting point.

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