CHAPTER 5

Understandings of Science and Faith in Yaoundé, Abidjan, and Kinshasa

If you are in agreement with your faith, you are normally against the theory of evolution, for example, and against other theories that are developed in your domain of study. [...] The popular understanding in our countries is that the more engaged you are in faith, the less intellectual you are, I think.1

This impression of a more general understanding of science and faith in (French-speaking) Africa comes from Enow, a Baptist student of theology from Yaoundé. ‘Faith’ could be understood here in a broad sense, including not only Christian but also traditional African beliefs and Islam. Enow’s words refer to a perspective that sees a strong opposition between science and faith. Of course, the question is whether or not this perspective is as general as Enow believes it to be. In the research groups there is no major approval of this perspective. From the previous chapter we know that in the student group from Yaoundé this general perspective is related to tensions between the Christian faith and ‘the world’ in general, and, more specifically, ‘African culture’, as testified by a sub-group of the participants including Enow himself. However, in this chapter we will not check the truth of Enow’s statement but will rather use his ‘general description’ to order the presentation of the diverse understandings of science and faith found in the student and academic discourses. Here we will not foreground the contexts, as we did in the former chapter in which the presentation was organized by place. Rather, we will primarily concentrate on the different understandings of science and religion. However, it is important to note that all the group discourses contain elements of a variety of understandings and positions.

1 P13, 88, Enow: [...] ta foi te met en contre foi avec la théorie de l’évolution par exemple, hum c’est pour montrer que si tu es d’accord avec ta foi, normalement tu es contre la théorie de l’évolution, bon et contre d’autres théories qu’on peut avoir développé dans ton domaine d’étude. Je veux donc dire que, parce que et puis même en général dans la pensée populaire de nos pays, mieux on est dans la foi, moins on est euh moins on doit être intellectuel à mon avis.
In the first part of the chapter, the varying contributions regarding science and faith (if substantially discussed and elaborated within the dynamics of the group) are presented as separate positions in the debate in order to get an overview of the major perspectives or positions that are present in the discourses. We present five main positions and use Enow’s general outlook as a guide to help order these five positions. We start with those understandings that are most distant from Enow’s statement, and from there we move to perspectives that are, in one way or another, closer to the outright opposition of science and faith. The first section is dedicated to the perspective that perceives science as a place where knowledge of God is found. In the second section the position described underlines the togetherness of science and faith and presents them as parts of an encompassing unity. The third perspective appreciates science but underlines its limitations. In the fourth section, we explore the understanding of science and faith as (relatively) independent. Finally, we arrive at the position that is indicated by Enow’s words above: the opposition of science and faith. This section concludes with a table of comparison which provides an overview of the main positions defended in the different groups.

In the second part of this chapter we take the analysis a step further. With the help of David Livingstone, we analyse the impact of the major factors of diversity within and between the groups on their perspectives on science and faith. This part has three sections, the first on pluralising the science and religion discourse, the second on localising and hybridising it, and the final one on politicising the discourse.

In the final part of this chapter we relate the discourses studied to the Western debate on science and religion. First, we characterize the Western debate with the help of Taede Smedes’ understanding of the notion ‘scientism’, and Ian Barbour’s typology of major positions in the Western debate. Finally, we will then make a start on a dialogue between these Western understandings and the analysis of the discourses from French-speaking Africa, which will be continued in the final chapter.

1 Part 1: The Main Understandings of Science and Faith in the Six Discourses

The model building process pushed the participants into a certain approach towards science. Instead of talking about abstract issues, the participants were guided to discuss concrete practices. The so-called ‘concept models’ we made to initiate the discussions and to explain the research method, never included a concept of ‘science’. However, the variable ‘domain of study’ was included for
the student groups, and ‘academic work’ for the academic groups. In these models we did not use ‘faith’ as a variable. Although this did not prevent discussion on a more abstract level, it is probable that because of this ‘university as an institution’ did not play a substantial role in the discourses (despite the fact that in some groups allusions were made to university life and rules). In the diverse contributions, we distinguish five major positions on science and faith that are analysed in the following five sections.

1.1 ‘Science as a place of revelation’ or Drawing Science into Faith

In terms of Enow’s understanding of the general outlook on science and faith in African countries, the most challenging perspective is found in the model of the academics from Yaoundé. One of its variables reads ‘Science as a place of revelation’, and it contains the most positive evaluation of science from a faith perspective in all of the discourses. In this section we study the understanding of this variable among the academics of Yaoundé when it was introduced in the first research session and later confirmed during the second and the third sessions. However, this idea is not exclusively expressed by the academics from Yaoundé. Similar expressions can be found in the discourses of the other groups, and we present those as well in order to understand the broader basis of this position among the participants, and the varied nuances of its understandings.

In Chapter 4 we explained that the first session with the academic group from Yaoundé (in which the GMB model was construed) was quite different to the second session. The first session was very peaceful, and the academics did not contemplate the influences of cultural difference; indeed, the model is free from references to any culture at all. Model YA2 (see Annexes) reflects their positive perspective concerning science’s contribution to (the blossoming of) faith. Different group members played a role in the genesis of this positive perspective. Tabot, a mathematician who identifies himself as an Protestant-evangelical, concludes about the variable ‘the good use of science’ that: “There is a problem with the good use of science.”

Marie, a young chemist with a similar religious affiliation, links the good use of science to the variable ‘conceptual knowledge’, indicating that this variable not only has a negative impact but can also contribute positively to the flourishing of faith. Finally it

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2 See Chapter 2 for a further explanation of the function of the concept models. The concept models can be found in the Annexes as the figures with number 1. Figure AA1, for example, is the concept model made for the academic group from Abidjan.

3 P6, 204: “Le bon usage de la science ! Il y a un problème de bon usage de la science. Ou peut-être la science avec conscience. C’est un peu ça.”

4 P6, 220–224.
is Martha, a professor with a Pentecostal background and a lot of administrative experience at the university – the leading voice in this session's debate – who argues that ‘good use’ is not really specific enough and proposes to add ‘science as place of revelation’ as a variable in the model. This positive understanding of science from a faith perspective is the most characteristic element of the model of the academics in Yaoundé.

Furthermore, during the next group sessions, the importance of this variable is agreed upon by all the participants. The understanding of another variable in the model, ‘discovery of the limits of science’ proposes something quite similar. This is evidenced by Tabot’s explanation of his understanding regarding this variable. He uses an example from evolutionary theory to argue that what scientific theories cannot explain, refers to “what only God can explain.” Evolution theory is thus not used to create an opposition between science and faith, but to indicate the limits of science. According to this group, ‘conceptual knowledge’ (another variable used to describe scientific work) only becomes opposed to faith if it fails to accept its own limits.

This group’s second session was less harmonious. The clash between newcomer Ayuk and the others (especially Martha) concerned their different appreciations of traditional African culture (see Chapter 4). Although Ayuk has a far more positive understanding of traditional culture and knowledge and is critical about the colonial aspect of Western science, he agrees with the groups’ understanding of ‘science as a place of revelation’. In fact, he goes even further than the other group members who have built the model by arguing that neither scientific knowledge nor traditional knowledge are threats to faith. In his own words: “I do not think that any knowledge poses a problem for faith.”

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5 P6, 332: “Bon, je veux par exemple prendre la théorie de Darwin où c'est on parle de l'évolution des espèces. Je me suis toujours dit que bon c'est vrai qu'on parle de l'évolution des espèces au départ c'était les homo sapiens, les australopithèques et tout ça. Mais je me dis, pourquoi est-ce que maintenant ces australopithèques, ces australopithèques, pourquoi aussi maintenant ces singes ne deviennent pas aussi des personnes ! Pourquoi est-ce qu'il faut qu'il y ait accouplement d'abord, pourquoi est-ce qu'il faut qu'il y ait fécondation entre l'homme et la femme et tout ça. Donc, moi je trouve que c'est une limite. Et dans cette limite-là, on voit maintenant la grandeur de Dieu. Ça c'est ça relève maintenant de l'irrationnel, de ce que Dieu seulement peut expliquer.”

6 P15, 73: “[...] C'est un peu, c'est mon interrogation par rapport à la flèche, c'est-à-dire je me dis oui je suis sûre qu'il y a des connaissances conceptuelles qui qui peuvent diminuer la foi, soit on te dit que, l'homme a, Dieu a, les animaux sont venus avant l'homme, des choses qu'on entend souvent les créationnistes, les évolutionnistes. Quand les évolutionnistes parlent, ils sont très pertinents vraiment, parfois lui aussi ils te bousculent un peu (murmures). Mais je ne pense pas que fondamentalement la connaissance, toutes les connaissances, je ne pense pas qu'elles soient un problème pour la foi. Toutes les connaissances conceptuelles.”
However, for most of the group members it is mainly ‘Western science’, that is, as Felix puts it, a place for revelation. They perceive traditional science as too tightly bound up with non-Christian religion to contribute to the blossoming of faith. Martha in particular thinks that a lot of traditional knowledge and rites are directly opposed to the Christian faith: “The values that are transmitted through traditional rites can absolutely not contribute to the flourishing of Christian faith.” In her understanding, traditional funeral rites and the Bamileke ‘cult of the skull’ ritual are profoundly satanic.

We conclude that the difference between Ayuk and the others during the second research session is unrelated to the positive way in which science contributes to faith as expressed by the variable ‘science is a place of revelation’. While for most of the group, including Martha and Felix, science in this context is understood as ‘Western science’, for Ayuk it includes traditional knowledge or science as well. By using the theological term ‘revelation’, this group draws science into the domain of faith. In a way these academics integrate science and faith, which is confirmed by Martha when she uses typical faith language, such as the qualification ‘satanic’, to disqualify traditional knowledge. This means that from her perspective traditional knowledge is part of another (i.e. traditional) faith and is therefore not compatible with Christian faith. This gives the impression that from this point of view science is always part of one faith or another. The discourse of this group proposes a form of ‘appropriation’ of science by faith.

When we presented the other groups’ models in the third research session (which lamentably did not take place in Kinshasa), the academics from Abidjan reacted especially positively to the variable ‘science as place of revelation’.

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7 P15, 247: “[…] vraiment moi je crois que les traditions-là, comme ça se passe, ça part des travaux académiques-là avec tout ce qui est initiation, les rites, ça prend la connaissance, on connaît les choses de manière, de manière surnaturelle, de manière spirituelle et pas scientifique, ça va aller à l’encontre de l’épanouissement de la foi. Et je et … et j’ai vécu ça, j’ai vécu ça parce que une fois quand j’avais accouché, ma mère est venue, elle, elle voulait faire tout ce qu’on fait là, j’ai dit que tu ne, tu ne vas pas faire ça, tu vas faire rien de ça ! Pourquoi on fait ceci ? Moi je ne sais pas on nous, bon ma mère m’avait aussi fait ça, bon pourquoi on fait ceci ? Euh moi je ne connais pas mais c’est comme ça, on a toujours fait. Je lui dis que non, on a toujours fait mais tant que je n’ai pas l’explication, je suis devenue enfant de Dieu maintenant là je ne fais plus. Bon est-ce que l’enfant n’a pas grandi normalement et bien ? Donc pour … dire que c’est autre chose que la science, c’est les connaissances spirituelles, c’est pas des connaissances scientifiques, et moi en tant que chrétienne je ne fais pas tout ça […]”.

8 P15, 254: “Les valeurs qui sont transmises par les rites ne peuvent en aucun cas, apporter l’épanouissement de la foi chrétienne.”

9 P15, 257: “[…] Le lendemain maintenant quand on fait les célébrations, il y a une phase à l’intérieur qui est satanique, quand on fait les tours là, il y a un nombre précis de tours qu’on doit faire. Et ces tours là c’est à la gloire de Satan. […]”
Although they did not use a similar variable in their model, in their discourse they became quite close to their colleagues from Yaoundé. However, the logic of their argument runs differently. A substantial contribution to the understanding of science and faith comes from Clément, a chemist who identifies himself as Pentecostal. Science, he argues, “…is not an explanation. We interpret, we say: ‘it seems that’. We do not explain the phenomena, we interpret. Only God can explain.”

God, therefore, is the most important scientist, according to Clément. “If we as scientists really want to make progress in science, we must base our faith absolutely on Christ. If not, we will commit very serious heresies and humanity will be confronted with problems that are difficult to solve.”

This argument is applauded by the other participants. Here science is also drawn into the field of faith, but instead of expressing the value of science in theological terms (‘revelation’), Clément uses hermeneutical language to indicate that human, academic understanding is less reliable than divine knowledge. While the first approach is meant as an upgrade towards science, the second intends to downplay any high expectations of scientific knowledge. However, in both cases science is perceived as a possible continuation of the knowledge of God received by faith.

1.2 “African culture is a whole that includes science and faith”

Although not all groups expressed a clear understanding of science from a faith perspective, we found at least some traces of the underlying understanding that science and faith belong to a whole in all the discourses. We already identified this perspective in Chapter 3 with the help of African philosophy and theology. During the research project, this perspective was expressed most explicitly in the student group from Yaoundé by Brice, a Protestant-evangelical student of education. He said: “African culture is a whole that includes science and faith.” In order to understand this position concerning

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10 P9, 07 : “[…] Nous en faisons une interprétation, ce n’est pas une explication, nous interprétons, nous disons ceci : il semblerait que. On n’explique pas les phénomènes, nous interprétons, c’est Dieu seul qui peut expliquer les phénomènes que nous observons, nous tentons […].”

11 P9, 19 : “Je commencerais par dire que notre Dieu c’est le plus grand scientifique qui puisse exister, le plus grand ; parce que de Genèse à l’Apocalypse, il a démontré que tous les domaines de la science là il les maîtrise. […] Donc si nous en tant que scientifiques nous voulons vraiment avancer dans la science, il nous faut absolument absolument baser notre foi sur Christ, sinon nous allons faire des hérésies très graves et l’humanité va s’en trouver confrontée à des problèmes vraiment difficiles à résoudre […].”

12 Brice in P9, 51 : “La culture africaine en elle-même c’est un tout, ça inclut la science et la foi.”
science and faith, we first examine the discourse of the student group from Yaoundé more closely and then search for its echo in the other groups.

In Chapter 4 we analysed the dynamics between two tendencies in the student group from Yaoundé. The first tendency, supported by the majority, expresses a more critical attitude towards (traditional) African cultures because of the fear that these cultures limit what they call the liberating power of the Bible. Enow and Loic are among its most passionate defenders. The other tendency, represented by students such as Patrick, Junior, and Brice, argues that African cultures make a constructive contribution to the Christian faith. There is a tension between these tendencies, but the two positions are not necessarily contradictory. The defenders of the first, more critical attitude toward African traditions therefore agree with Brice's statement that “African culture is a whole that includes science and faith,” as became clear in the third research session. Enow, for example, argues that in both ‘European’ and ‘African’ science there is a kind of initiation. This presupposes a unity between culture, science, and religion. Loic adds another element when he argues that the problem with what they call the ‘common use’ of scientific knowledge not only concerns traditional African science, but European science as well. From his perspective, the Christian faith is not part of traditional African cultures nor of European cultures and is therefore critical towards both. However, what is clear for all the participants in this group, is that science is always embedded in a cultural frame and is therefore intimately connected to religion or faith.

The reasoning of most of the academics from this city is in line with Enow's logic mentioned above. Previously we brought up the point that Martha’s logic about traditional science not being able to contribute to the blossoming of Christian faith is motivated by the religious qualification that the traditional culture in which it is embedded is satanic. However, since ‘Western science’ is not questioned in the academic group before Ayuk's intervention, this implies that from the group’s initial perspective Western science is not satanic and is compatible with the Christian faith. Although this argument is not used in the academic group, they might understand the compatibility of (Western) science and Christian faith as a consequence of the Christian roots of modern science. Whatever it may be, this uncovers a difference to Loic’s argument on which we will comment below. For the moment we conclude that Martha and

13 See figure YS2 in the Annexes.
14 See P19, 75: “Or alors que la science occidentale certes est aussi la science sur le lieu de l’initiation, mais je sais qu’il y a beaucoup d’initiés à (xxx) [...]. Je crois que la science africaine n’a pas suffisamment de porteurs, de ... des personnes qui en sont les porteurs comme ailleurs [...]."
15 P19, 81.
most of the academics from Yaoundé share the perspective that faith and science are intimately related.

The perspective that science and faith belong to a (cultural) whole is also expressed in the other cities. The students from Abidjan have a strong conviction that science and faith are compatible. Their togetherness is nicely expressed in the model these students created, in which knowledge of faith and scientific knowledge come forth from (one) truth. In this model, truth is fed by love. Despite this shared understanding about a common source, in the second research session a dispute emerges about the interpretation of the model; in particular concerning the relation between the two types of knowledge. Some students prefer some distance between the two types of knowledge, creating a certain independence for both (more on this below). However, according to Adama, a Protestant-evangelical law student from the West of the country, this is not in line with the model they have built. In his understanding, the model says that the value of the knowledge of the field of study is limited. Adama argues that in the case of the doctor she should have prayed before she knew the outcome of the tests, because “medicine is medicine, but it is God who heals.” Similarly, Princesse, a student of music who identified herself as Pentecostal, reacts strongly to those who want to give both types of knowledge a certain independence. She firmly opposes what she understands as ‘dissociating’ the two kinds of knowledge: “I think that faith supports science and its development.” Her opposition to the dissociation is accompanied by underlining the priority of faith.

The priority of faith is also supported among the academics from Abidjan. While the togetherness of science and faith is again underlined, an interesting opposition also emerges here. “‘Rationality’ is opposed to ‘faith’,” argues Fidèle, a botanist who identifies himself as an evangelical Protestant. Fidèle states that: “Rationality refers to human intelligence; faith indicates the limit of human intelligence.” However, Kouasi, a Pentecostal psychologist, argues that “...he who has a lot of faith doesn’t have a problem with rationality, he is affirmed by rationality. But the person who is more rational has a problem with faith.” Stéphane, a Protestant-evangelical linguist, shares his personal
experience which taught him to entrust himself to God because Christ is called “...the treasure of knowledge and wisdom...” (Colossians 2:3), and to maintain this approach because “He [the Lord] allows me to discover things that surprise me.” Next, Clément shares about how he prayed in the laboratory when his research was at a dead end. Although these are important expressions of their own spirituality and personal experiences of academic work, they do not explain whether, and if so how, this leads to a different rationality or different academic practices. It appears that they do not have such an alternative approach in mind. These academics allege the priority of faith, and mainly argue that a certain spirituality helps them to accept scientific rationality in a proper way.

Just a glimpse of an alternative approach becomes visible during the third research session with the academics from Abidjan, when the social scientists express that being a Christian is very helpful for doing scientific research. Some of the professors think that it is often easier for Christians to investigate phenomena that provoke fear in non-Christians because of their beliefs in traditional myths, etc. The statement by Jacob, already used in Chapter 4, is also significant here: “There are no taboos for knowing ... in a natural way we are predisposed to reconcile these two things [science and faith].” Ayuk, the academic from Yaoundé who holds an alternative position, uses almost exactly the same words. We think these words should be understood as an expression of an even stronger view of the togetherness of Christian faith and science and the priority of faith. Faith entails a trust in God and creation that cannot be disturbed by any taboo concerning knowledge.

The model built by the academic group from Kinshasa is remarkably similar to the model of the students from Yaoundé in the sense that cultural differences

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20 P9, 25 : “[...] Il me permet de découvrir les choses moi-même je suis étonné. [...]” This is confirmed by Clément, see P9, 26 and his testimony in P9, 60.
21 P9. 60 : “[...] dans mes études scientifiques, quand j’étais en thèse, j’étais arrivé à un moment où il y avait tout un blocage : et les appareils sont tombés en panne, là vous pouvez faire quoi quand les appareils sont tombés en panne ? Vous ne pouvez pas avancer (pour nous les scientifiques), vous êtes bloqué vous voyez. Alors il y avait quoi à faire ? Lever les yeux vers le Seigneur. J’ai dit mais voilà comment depuis que ... moi j’avais un séjour court, trois mois dans un laboratoire extérieur. Donc après ça je reviens pour travailler. Si les trois mois sont passés alors que je n'ai pas fait de mesures qu'est-ce que moi je vais xxx alors je me suis mis à genoux, à prier, à jeuner alors que c’est inespéré. Il y avait un monsieur qui était venu dans le laboratoire pour faire la démo, c'est-à-dire que quand il y a un nouvel appareil, ils viennent donc pour faire la démo dans les différents départements. Et c'est lui qui a dit que mais cette situation qui se pose à votre appareil là je vais le débloquer, si non ce n'est pas lui qu'on appelait, vous comprenez ?”
22 See Chapter 4, the reference to Pt8, 34.
play a crucial role in both models.\footnote{23} According to the academics there is a direct relation between the cultural differences regarding (Western) ‘modernity’ and ‘African tradition’, and the epistemological distinction between instrumental and encompassing reason. Their model suggests that the variables ‘instrumental reason’ and ‘modernity’ are intimately connected, and that both are associated with (Western) science.\footnote{24} It is confusing, however, that while ‘instrumental reason’ is positively linked to ‘love and faith’, ‘modernity’ connects negatively with this central variable. Thus, the academics’ model sends a double message concerning (Western) science and this is not clarified in the second research session where the ambiguity around science continues. Apart from the fact that this ambiguous outcome may be related to the particular composition of the academic group, we think that this indicates at least two things. First, against the background of the opposition between ‘Western’ and ‘African’ in this group (see Chapter 4), science is typically associated with ‘Western’ and faith with ‘African’. This means that the togetherness of science and faith is typically ‘African’, as remarked on already in the student group from Yaoundé. Western science is dominated by what the academics from Kinshasa called ‘instrumental reason’. The alternative ‘encompassing reason’ is characteristic of the African attitude and therefore corresponds with an understanding in which science and faith correlate.\footnote{25} In this group, the cultural opposition between Africa and the West marks the tension between science and faith. This makes it very hard to unite Western science with faith; a point which we will expand upon in the next sections. Second, it is very likely that the critical attitudes towards science, which the participants of this group mainly attribute to the context (for example to the churches as mentioned in Chapter 4), are also present in their own appreciations of science.

The particular composition of the student group from Kinshasa, with a majority of students from applied sciences, substantially affects the way science and faith are discussed. Right at the start of the model building session, the

\footnote{23} See figure KA2 in the Annexes and compare to that of the students of Yaoundé as presented by figure YS2. Both models have a distinct left-hand side dedicated to what could be called ‘epistemology’ and a right-hand side focussing on tradition and faith. However, the academics from Kinshasa continued to add relations between the variables during the model building session, which makes their model far more complex. This model with its multitude of arrows is therefore confusing.

\footnote{24} There are, for example, four negative arrows in KA2: two between ‘African tradition’ and ‘atheism’, from the two arrows that relate ‘mutual comprehension’ and ‘instrumental reason’, the arrow from ‘instrumental reason’ to ‘mutual comprehension’ and finally the arrow between ‘instrumental reason’ and ‘encompassing reason’. The variables ‘instrumental reason’ and ‘modernity’ are the source of two negative arrows.

\footnote{25} See figure KA2 for the model built by the academics from Kinshasa.
students replace the variable ‘modernity’ from the concept model with ‘technology’ – a symbolic act in view of the composition of the group.26 During the debate that follows, ‘technology’ becomes one of the most important variables representing science. Thus, the debate on the relationship between ‘technology’ and ‘love’ (‘amour’) is crucial. Destin, who has a Protestant-evangelical background, and Cardin, who identifies himself as a Pentecostal, are both students of applied sciences. They think that ‘technology’ contributes positively to ‘love’, because, for example, it facilitates communication between people.27 Lionel, a law student who identifies himself as Pentecostal, disagrees and argues that technology has a negative effect on ‘love’.28 Keicha, a student studying styling, wants to include ‘use of technology’ in the model. However, although she tries several times, the group does not support her proposal.29 This may well reflect the unequal gender balance of the group.

Altogether, the input from the group is very diverse. It is thus likely that the group itself found the model built during the first session to be inadequate for handling the case of the doctor during the second session (see also Chapter 4). The alternative model that is construed during the second session includes a positive feed-back loop that unites the variables ‘technology’, ‘faith’, and ‘love’. Even in this group, where the question of science and faith seems to be swallowed up by that of culture and faith, the conviction that science and faith are compatible is widespread. This is exemplified by the way Destin and Cardin relate technology to faith: new communication media contribute to sharing and living out the faith. Gloire, the Pentecostal student of medicine, is especially dedicated to this perspective. In Chapter 4 we shared his example of doctors who recognize the proper role of faith and invoke pastors to contribute to the cure of psychological illnesses. Gloire further adds that this understanding is widely shared beyond this group and is quite common within the medical community of his country.

We conclude that although the understanding of the cohesion of science and faith in a larger cultural whole appears to be a common feature in the groups, the overview of perspectives in this section also shows a diversity of interpretations regarding this understanding. Starting with the perspective of

26 Modernity was part of the concept model; see figure KSi in the Annexes. For more on the function of the concept model, see Chapter 2.
27 P3, 111–113.
28 P3, 125 : ‘J’estime que la technologie n’apporte pas du tout comme mon frère l’a renchéri quelque chose d’amour parce que en réalité l’amour de la technologie ne se limite qu’à la recherche de l’intérêt, de l’économie qui euh n’apporte pas beaucoup plus n’est-ce pas de conséquences liées à la chrétienté.
29 P3, 131, 165, 173.
Brice and others from the Yaoundé student group in which an African and holistic perspective is launched; the argument is that traditional science and faith should be taken seriously by ‘Western’ science and Christian faith. Most of the academics from Yaoundé also depart from the idea that faith and science belong together, but their logic goes in the opposite direction. For instance, Martha’s argument is that because of the cohesion of science and faith, traditional science cannot be part of what she understands as science, because it has a satanic background that is incompatible with the Christian faith. Finally, Loic, who represents the other tendency within the student group from Yaoundé, is critical of both traditional and modern science because he thinks that neither of the two should simply be accepted. He argues that precisely because of the close relationship between faith and science, the Christian faith must lead to a proper way of conducting science. Upon reflection, after hearing Loic’s argument, we see that the positions held by Martha and the majority of the academics presupposes that ‘Western’ science is compatible with the Christian faith (and is probably also understood to be closely related to the Christian faith).

The critical attitude towards Western science put forward by Loic is shared by the academics from Abidjan (as we will show below) and is also explicitly expressed in the discourse of the academics from Kinshasa. In this last group, what is seen as the typical African approach that holds science and faith together is opposed to the instrumental approach they perceive to be characteristic of Western science. How the opposition between the African approach and Western science can be managed in Kinshasa’s hybrid culture is not very clear. However, hybridity suggests that the differences between the two approaches can become fluid. The student group from Kinshasa indicates a way forward here. For example, Gloire points to the practices of doctors, who include faith as part of the treatment for some of their patients, as a possible way to combine insights from Western science and faith.

In the groups from Abidjan, the understanding of the correlation between science and faith also appears basic. However, in the discourses of both the students and the academics the priority of faith is underlined rather than the coherence of science and faith. In the student group the priority of faith appears to serve as an instrument to downplay a tendency which, according to some, tries to ‘dissociate’ science and faith. In the academic group the priority of faith provides a way to avoid the opposition of ‘rationality’ and ‘faith’. Additionally, these academics also understand the priority of faith as an antidote to the limitations of Western science – a point we will clarify in the next section.
1.3 **The Limitations of Science**

When the priority of faith plays a major role in the debate it is often connected to the idea that Western science holds a limited view of life. We want to give proper attention to the understanding of the limits of science, because we perceive this to be another position in the appreciation of science and faith. While faith and science are mainly understood as belonging together, indicating the limits of science not only prioritises faith but also reduces the importance of science. The limits of science are explicitly mentioned in the model of the academics from Yaoundé. Here, the variable ‘the limits of science’ is used to emphasise the fact that knowledge resulting from science can develop in an unfortunate direction and get lost in hubris. More often, however, a reference to the limits of science is explicitly related to Western science. Various groups unambiguously underline the importance of the intercultural framing of the understanding of science and faith.

In the student group from Yaoundé, Junior and Brice talk about the strengths of traditional knowledge, but they do not relate this more explicitly to the limitations of Western science. However, in the model created by this group a more hidden criticism of (Western) science comes to light. It is argued that the normal use of (Western) science does not positively contribute to the blossoming of faith. The case of the doctor, presented to the participants during the second session, appears very helpful to the other two groups for raising discussion about the limitations of science. In the first place, the academics from Kinshasa (who indirectly make the limits of science visible in their model through the opposition between the variables ‘instrumental reason’ and ‘encompassing reason’) talk more explicitly about this theme during the second research session. The Roman Catholic philosopher, Augustin, says that the doctor's method is typically African, because the human being is not only perceived as a biological being but also as a spiritual one.\(^{30}\) Espoir, a Pentecostal professor of mechanical engineering, adds that, in his understanding, the triad of body, spirit, and soul is a useful perspective for approaching the human being. He argues that while psychologists do not reach the soul, some traditional healers do.\(^{31}\)

The discourse of the academics from Abidjan is also quite informative about the limitations of science. Kouassi argues that the approach so eloquently described by Stéphane and Clément (see above) implies the acknowledgement of the limits of science. He says that the case of the doctor makes it clear that

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30 P12, 69.  
31 P12, 73, see Chapter 4, foot note 71.
one has “at a certain moment to set aside rationality and to pray with the patient.”\textsuperscript{32} This is confirmed by Clément when he argues that science is limited and that there is a dimension of the world that scientists do not grasp.\textsuperscript{33} Faith therefore helps these scientists to understand that human science is an enterprise with a limited scope. However, according to the group, pointing out these limitations of science is not only religiously but also culturally motivated. In reaction to the case of the doctor, Stéphane argues that: “Here in Africa we take the spiritual dimension of humanity into account.”\textsuperscript{34} He explains that he does the same in his educational practices,\textsuperscript{35} and this is confirmed by Kouassi.\textsuperscript{36} Therefore, the limitations of science are not only pointed out in light of a Christian theological account of human limitations, but also in reference to the reductive, non-African (read Western) character of science. Gloire’s experience in the hospital in Kinshasa (see Chapter 4) also points in the same direction.

We conclude that the limitations of science are mainly used to indicate that ‘Western’ science easily overlooks an important dimension of life: the spiritual. According to Espoir, traditional science takes this dimension seriously just as

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\textsuperscript{32} P9, 55 : “[…] À un moment donné, à laisser de côté euh (murmures) sa rationalité, et donc à prier avec le malade […].”
\textsuperscript{33} P9, 60, see foot note 23 ( ?)
\textsuperscript{34} P9, 61 : “[…] Mais euh il faut dire qu’en Afrique, nous prenons en compte la dimension spirituelle de l’être humain et tous les médecins africains le savent quand les gens s’en vont en consultation. Ils peuvent faire des examens et on ne retrouve rien du tout […].”
\textsuperscript{35} P6, 61 : “[…] Mais pour nous autres, en sciences humaines, peut être que ce n’est pas des patients qu’on reçoit, mais au niveau des étudiants, quand on se rend compte qu’un étudiant a des problèmes après le cours ou bien pendant le cours, pendant cinq minutes, on leur présente ce qu’est la vérité […]. Je leur demande de passer personnellement me voir et puis on prie. J’ai des livres que je les passe, j’ai des traités, j’ai\textit{ Le lecteur de la Bible} que je leur donne avec des Nouveaux Testaments et je les invite après le cours quand ils ont le temps. Ils passent me voir pour qu’on discute. On me dira que non ça ce n’est pas académique, mais ce qui n’est pas académique, ce qui n’est pas académique fait partie de l’existence de l’homme. Et parce qu’on a évacué le spirituel de la vie universitaire de façon particulière, je veux dire de l’école en général on a des problèmes aujourd’hui […].”
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\textsuperscript{36} P6, 62 : “Et moi je vais puisque que moi je suis dans le domaine des sciences et de l’éducation, c’est exactement les mêmes choses. Nous ont créé les personnes par exemple qui sont difficiles à lire. Ils ont des problèmes caractériels, des perturbateurs par exemple dans la classe et puis ou bien ils sont en palabre avec le monde xxx mais c’est des cas souvent où tu as tous fait pour pouvoir le maintenir et après quand tu l’appelles de côté, et un entretien que tu as avec lui, pour comprendre un peu ce qui se passe et quand tu traces ou tu essaies de tracer un peu son parcours, sa vie d’enfance jusqu’à toi, tu découvres qu’il a subi beaucoup de choses, beaucoup de traumatismes et tout ça. Pour l’aider, quelques fois on prie avec la personne, et tu peux prier c’est des délivrances; […] il y a toujours cette dimension spirituelle qu’il faut prendre en compte toujours (…).”
\end{flushright}
the Christian faith does. This explains why the participants of these sessions insist on the connection between faith and science. Faith guarantees an openness to the spiritual dimension of life that is overlooked by modern Western science. This also makes it understandable why so many Africans do not really trust Western science and combine medical treatment with other types of health care that recognize the spiritual dimension of the problem. The students from Yaoundé confirm that in Cameroon it is very common to go to the hospital and to the traditional healer and to the pastor or a church when sick. Modern Western medical care does not have a monopoly in this geographical area and doctors and hospitals do not have the best reputations.

1.4 Dissociating Science and Faith

Until now, the analysis of the discourses makes it understandable that separating or dissociating science and faith is not an obvious option in these contexts. The fact that the research was co-organized by an evangelical student movement possibly contributes to this avoidance in the groups. However, all students and academics of state universities, that is most of the participants, are used to the rule of laïcité that implies different treatment of science and faith. Nevertheless, it is only in the student group from Abidjan that what is called the ‘dissociation of science and faith’ is addressed and discussed. In the second research session, Emmanuel, a philosophy student, and Nadège, a student of law, disagree with Adama and Princesse. During the evaluation of the case of the doctor, some of the participants recognize that the doctor’s handling of the patient corresponds to their model, in which knowledge of faith and scientific knowledge are used harmoniously. Emmanuel and Nadège underline the distinction between the two types of knowledge which each have their own domain. Emmanuel concludes that this case offers “a nice example of the marriage between faith and [science].” We have already mentioned Adama’s and Princesse’s reactions to this in the text above. Adama argues that what the doctor does is not in line with the model they have built. According to him, the doctor should have prayed before she knew the outcome of the tests. Adama concludes that this case offers “a nice example of the marriage between faith and [science].”

37 See for example P14, 15: “Dans la plupart des cas même c'est toujours spirituel, c'est d'abord spirituel (rires et paroles) non partout parce que, même chez les médecins, parce que généralement quand les personnes arrivent à l'hôpital. Ils ont déjà fait le tour des guérisseurs et même quand ils sont à l'hôpital, les guérisseurs viennent leur retrouver là-bas et les médecins ne refoulent pas forcément les médecins, même les pasteurs qui viennent prier.”

38 P7, 114: “Je pense qu'elle est un bel exemple du mariage entre foi et [science].” See also P7, 100–113, 137–138.
of the two kinds of knowledge and puts forward the priority of faith as her cure for the dissociation. We believe she has a point because talking about a marriage between science and faith, as Emmanuel did, implies that you perceive these as two quite independent entities. However, Emmanuel maintains that it is not always possible to unite faith and science. Ultimately, they all accept that faith is the basic layer, which makes it foundational for all knowledge, as expressed in the model they built during the GMB session. Nevertheless, it is obvious that Emmanuel and Nadège, perhaps also because of their respective specialisations in philosophy and law (both of which are nearly completely orientated towards French thought and practice in Ivory Coast) are influenced by their fields of study towards their ideas of a relatively independent science. The way they defend this independence is related to the justification of laïcité at the university, and a certain influence of French thought on their logic seems undeniable (see Chapter 3).

1.5 Science and Faith Opposed

We now arrive at the other end of the range of positions on science and faith that we were able to distinguish in the discourses. This position stands for the opposition of science and faith and is mainly described as ‘the position of others’. Enow’s quote at the beginning of the chapter is a nice example of this descriptive use. This position is often ascribed to traditional leaders or the churches. However, it is not so easy to be a church member like the participants of the research groups and to completely stay away from the tendency to oppose science and faith. The analysis of the discourse of the academics from Abidjan already shows that the notion of the priority of faith is offered as a solution to the opposition of ‘rationality’ and ‘faith’ put forward by Fidèle. It is this group that argues quite firmly that in the past the churches held faith in opposition to science but that most churches have now overcome this position. In this section we will study the discourses of the groups in which the opposition of science and faith played a substantial role: the student groups from Yaoundé and Abidjan, and both groups from Kinshasa.

For some of the participants it was difficult to understand how the churches that have contributed so much to schooling, and have stimulated the children and youngsters to study, would finally be the ones to oppose science and faith.

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39 See P7, 196 : “[...] Il y a des moments où on est obligé de choisir un des deux cas. Ou c’est la science, ou c’est la religion. Des moments où il n’y a pas d’alternative. Il y a des moments les deux se complètent, tu peux utiliser les deux pour résoudre le problème. Voilà. Et il y a des moments aussi bons il n’y a même pas de possibilité. T’es aussi obligé de ... t’abandonner comme ça [...]”
Initially, Eseck, a Roman Catholic urban planning student from Yaoundé, argues that his church does not have any problems with science – on the contrary, it encourages science – however, during the discussion, he also comes to a more critical understanding. He recognizes that his own scientific education by priests was selective and not as open as a scientific education should be. Janvier, a law student originating from the west of the country, explains that although Protestant churches are very positive about education, there is a 'hidden message' that communicates that education can possibly be destructive to Christian faith; without a strong faith, science is considered dangerous. Scientific education leads some Christians with less ingrained convictions into error and opposition to the faith. Brice raises this when he argues that pastors and the like express a positive view of science, but “the interest in science is mainly accessorial, science is not really given authority.” Enow takes it more personally, and argues that the dichotomy between science and faith in the churches also exists in a Christian student movement like GBEEC (the organisation that...
helped us to organise the project in Cameroon). He provides the example of an encounter with another GBEEC member who told him that faith is the most important thing. Enow’s conclusion is that: “Even for us who are intellectuals, our reflection, our science is just a way to find a job. And our faith stays separate.” Taking into account the information from Chapter 4, we know that this ambiguity towards science is only characteristic of part of the group.

In the student group from Abidjan, the perceived opposition between science and faith is related to both the traditional leaders and the churches. According to the participants, generally both Roman Catholics and Protestants have a very positive attitude towards education. However, Emmanuel identifies a problem at the level of higher education when he says that a critical, academic approach is not really appreciated in church. Others confirm this and explain that certain disciplines, such as philosophy and psychology, have negative reputations in the churches. The students clearly recognize that the perspective of the churches influences their own ideas. According to Emmanuel, the church leaders are often concerned about those who are studying at university, because they fear that they will lose the truth of faith. Distinguishing ‘the knowledge of faith’ from ‘the knowledge of the field of study’ (as in the model of the students) both reflects and meets the worries of the churches. “I agree,” Adama adds, “because we are university students there is this big question of truth.” However, in this group the distinction between the two types

43 P14, 192: “[...] c’est le véritable problème c’est que même nous-là qui sommes intellectuels, notre réflexion, notre science là, bon c’est juste pour qu’on trouve un travail hein, et notre foi aussi se vit à part. Les deux n’ont pas encore trouvé une corrélation importante pour que nous puissions agir et problématiser la société.” The perception that study is merely related to career rather than to knowledge and science was a recurring theme during the second conference we organized with the students in November 2016. This perception was also expressed in the first focus group with the students from Kinshasa.

44 P8, 036: “[...] Voilà parce que faut pas que dans ton esprit critique, ils te questionnent tout là tu tu… égares les autres, donc quand tu fais ce genre d’école, quand tu fais certaines facultés, toute suite on te met à un certain niveau pour éviter que tu influences, que tu remettes tout en cause. Voilà c’est c’est un peu là où il y a un problème. Sinon l’enseignement de base non on a pas, je ne pense pas qu’il y ait problème avec l’église quand même c’est c’est c’est euh, j’encourage les gens à faire l’école voilà.”

45 P8, 055: “[...] le danger qu’on court avec les universités et ce que nous pensons avec beaucoup églises c’est qu’à un moment donné le jeune chrétien qui est dans ces universités ne finissent par confondre ce qu’il reçoit là-bas avec ce qui est la vérité ou vice avec ce qu’il a reçu dans dans l’église ou vice versa que finalement l’autre connaissance ne vienne prendre la place de l’autre [...].”

46 P8, 057: “...je pense la même chose en disant que euh lorsque nous poursuivons des études au niveau universitaire, il y a cette grande question de la vérité (hum hum).”
of knowledge is also related to the way traditional leaders perceive science. As mentioned in Chapter 4, Aristide emphasizes the fact that from a traditional perspective schooling and academic knowledge is seen as an extension of Western domination.⁴⁷ Others confirm that the traditional opposition to scientific knowledge is more substantial than the opposition found in the churches. Emmanuel states that “the mystical esoteric knowledge [...] has nothing to do with the knowledge of the field of study,”⁴⁸ and explains that the distinction between the two types of knowledge in the model has a parallel in the distinction between open and secret knowledge in traditional culture. According to the participants, in both the perspective of the churches and from a traditional point of view, it is fundamental that these two types of knowledge are neither mixed nor confused. Authority and power clearly play an important role here, as was argued earlier in Chapter 4.

Both groups from Kinshasa have substantial difficulties presenting an intelligible picture of the way the churches perceive science, not in the least because of their own involvement. The student group developed a complex image that was mainly influenced by the way Pentecostal churches react to science. Gloire alleges that there is a double ambiguity in the churches’ attitude to science. Traditionally, the leaders did not prioritize higher education, because in their view it did not serve life with God or going to heaven. However, today both higher education and science are positively valued by most pastors and leaders.⁴⁹ Gloire argues that what makes the issue more complex is the growing diabolizing of study on the part of certain (younger) pastors.⁵⁰ Although the Pentecostal students are a majority in this group, those representing other denominations feel free to correct the overall picture. For instance, Nipcia, a student of urban planning who is involved in the

⁴⁷ P8, 159 : See Chapter 4, foot note 39.
⁴⁸ P8, 119 : “[...] le savoir mystique ésotérique est à part, n’a rien à voir avec le savoir la connaissance du domaine d’étude.”
⁴⁹ P1, 27 : “[...] Mais dans mon dans mon église ou dans ma communauté au fait il y a il y a deux tendances, mais actuellement une est en train de prendre le dessus sur l’autre. La première c’est par rapport aux pères hein, les gens qui ont commencé dans la communauté. Très peu, ils ne ils ne valorisaient pas beaucoup le fait d’aller loin dans les études, là c’était une école un peu vieille hein des pères. Mais maintenant la tendance actuelle c’est que, on motive les jeunes à aller un peu plus loin dans les études, voire même nous avons des pasteurs qui sont allés plus loin dans les études en dehors de la théologie ils ont fait d’autres études, ce qui fait que on a vraiment ils nous motivent à aller plus loin dans les études et c’est pas un problème pour eux [...]”
⁵⁰ P1, 276 : “[...] Mais la deuxième tendance est est que certains de nos pasteurs, même aujourd’hui continuent à donner une connotation diabolique aux études en fait. [...] C’est le diable xxx ici, ils rapportent tout aussi dans les études.”
protestant chaplaincy, is positive about the church’s encouragement of study and support for students in their academic endeavours and their personal situations.

Finally, the academics of Kinshasa provide an interesting insight regarding the importance of the understanding of science and faith being opposite in the churches and in their own perspectives. Paul, a Protestant-evangelical theologian, says that (conservative) churches are sometimes afraid that science will mislead their young people and argues that they use their authority and institutional power to influence (future) students. He himself experienced this when the leaders of his church only wanted to give him a scholarship for the (evangelical) theological faculty in Bangui (Central African Republic), because they perceived the Protestant faculty in Kinshasa to be too liberal. However, he wanted to stay in Kinshasa and started studying theology at the Protestant University. “I didn’t go to the Protestant University in order to be filled with faith, because faith I had already [...] but there I would be educated to be useful for the church.” Ultimately, he did not receive a scholarship. After his studies, they initially did not allow him to be a pastor in the denomination because of his education at the Protestant University, but he finally became a respected professor in the denomination.51 Another element of the churches’ influence is revealed by Marc. He points to the competition over authority between university and church. He explains that students at a lay university have to deal with situations such as professors saying, “I am God and this is my theory.”52 In these dynamics the churches and pastors sometimes downplay the importance of universities and professors. Marc argues: “the students think a lot of prayer is better than study.”53 This kind of rivalry between church and university can be understood as an expression of ‘Kinois’ culture, as mentioned in Chapter 3. However, it appears that the Protestant and Pentecostal academics themselves

51 P12, 100 : “[…] je ne vais pas à l’université protestante pour euh qu’on me remplisse la foi, la foi je l’ai déjà, vous m’avez proposé et j’ai dit j’accepte le Seigneur Jésus Christ comme mon Seigneur et mon Sauveur, (rires) mais là-bas je veux aussi suivre une formation pour pouvoir aider l’église […].”
52 P12, 102 : “[…] Et entre vous à la pause vous avez un débat qu’il doivent y aller presque à ses frais, (rires) vous avez un professeur qui s’appelle Dieu le père. Il vous dit ‘Dieu c’est moi et ma théorie est ceci’. Alors dans tout ça quand les étudiants rentrent à l’église, ça c’est le premier aspect ça pose problème.”
53 P12, 102 : “[…] Et ces cas-là ce sont des étudiants que nous rencontrons qui pensent qu’on peut beaucoup prier qu’étudier […].”
get trapped in the opposition between faith and modern ‘Kinoiserie’ (local culture). The Roman Catholic philosopher Augustin may think there is no sense in demonizing modernity, but his Protestant and Pentecostal partners continue their discourse on the harmful effects of dance, publicity, media, etc., even though they recognize some positive effects of modernity, such as technology. In this group, the way traditional culture opposes science and faith is also addressed, although less profoundly then in the student group from Abidjan. Espoir explains that in popular belief there is an opposition between African culture and science. He therefore perceives scientists, including himself, as ‘hybrids’ because they are ‘initiated’ into the sciences. It is interesting that he uses this terminology because most participants, including Espoir and Paul, think that there is no such opposition.

In particular, the students from Yaoundé and Abidjan discover that the tendencies to oppose science and faith do not only exist among those who defend traditional cultures or church leaders, but also in their own arguments, and even in the models they construed. However, placing science and faith in opposition presupposes a dissociation or clear separation of the two. We therefore conclude that the influence of the laïcité, and the idea of independent science, is not only received directly through formal education (as was the case of Emmanuel and Nadège from the student group in Abidjan – see the previous section), but also indirectly, through the reactions of traditional culture and churches that want to protect their people from the dangers of modern science. Although the potential loss of power plays a role here, the discourses show that the motivations behind dissociating science and faith are broader and more complex. The reaction of the churches against an independent, modern science is therefore one of the sources that creates a certain ambiguity towards science among the Christian students and academics of this research. This ambiguity was especially strong in the discourses from Kinshasa which is the critical case of this research (see Chapter 2). In the case of the studied discourses we can conclude that the difference between French and Belgian rule concerning laïcité, especially in the education system, did not have a major effect on the debates around science and faith.

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54 P12, 128 : “[…] à ne pas diaboliser aussi la modernité.” See P12, 134–137 for other participants’ continued complaints regarding modern culture.

55 See Chapter 4, foot note 73.
The following table provides an overview of the positions maintained in the six groups:

| Group (model built) | Group characteristics | Handling cultural differences (Chapter 4) | Affirmation of major positions in the debate (Chapter 5) |
|---------------------|-----------------------|------------------------------------------|-------------------------------------------------------|
| Yaoundé Students (model YS2) | High ethnic awareness; less women; constant participation. | Two tendencies: one more critical towards traditional culture, other more positive; shared criticism of Western science; intercultural framing from the start. | Position 2 (science and religion parts of a whole); Position 3 (limitations of science); Traces of position 5 (opposition of science and faith). |
| Yaoundé Academics (model YA2) | High ethnic awareness, only last session better gender balance; strong presence natural sciences; inconstant participation. | Two tendencies: one (dominant) critical other affirmative towards traditional culture; intercultural framing from 2nd session. | Position 1 (science = place of revelation); position 2 (science and religion parts of a whole); position 3 (limitations of science). |
| Abidjan Students (model AS2) | Ethic awareness; nice gender bias and lively debate; inconstant participation. | Strong cultural awareness; focus on power and suppression; avoiding intercultural framing. | Weaker version of position 2 (science and religion as part of a whole); position 3 (limitations of science); some defended position 4 (‘dissociation’ of science and faith); traces of position 5 (opposition science and faith). |
| Group (model built) | Group characteristics | Handling cultural differences (Chapter 4) | Affirmation of major positions in the debate (Chapter 5) |
|---------------------|-----------------------|------------------------------------------|--------------------------------------------------------|
| Abidjan Academics (model AA2) | Ethnicity was a minor theme; male dominated. | Strong cultural awareness, hybrid self-definition; fear of conflicts; downplaying cultural difference as assimilation strategy; power and suppression dominate the discourse; no intercultural framing. | Weaker version of position 1 (science = place of revelation); weaker version of position 2 (science and religion parts of a whole); position 3 (limitations of science); |
| Kinshasa Students (models KS2 and KS3) | Strong presence of technical and applied sciences; less women; Pentecostal majority; weak ethnic awareness. | World – church divide is more important than the cultural divide; ethnic awareness is low; African – Western divide is discussed in relation to hybrid self-understanding. | Ambiguous affirmation of position 2 (science and religion parts of a whole); position 3; traces of position 5 (opposition science and faith). |
| Kinshasa Academics (model KA2). | Strong presence of theologians and philosophers; no women; denominationally diverse; ethnicity was not an issue. | Part of the group underlines the opposition of world and church; African – Western divide leads to a proper form of intercultural framing which is related to hybrid self-understanding. | Position 2 (science and religion parts of a whole); position 3; traces of position 5 (opposition science and faith). |
2 Part 2: The Impact of the Major Diversities within and between the Groups on their Perspectives on Science and Faith

The importance of David Livingstone’s ground-breaking study, *Putting Science in its Place: Geographies of Scientific Knowledge* (2003), goes beyond its primarily historical scope. His strong emphasis on place and geography means that he also relates the understanding of science to cultural differences. He links the diachronic developments and the spatial-cultural diversity with the help of comparisons without pretending to provide a complete picture.

We applied a similar link between these two dimensions in Chapter 3. In the final chapter of *Science and Religion around the World*, Livingstone expresses four “hypothetical imperatives” for the analysis of specific moments of the debate concerning science and religion: “I want to offer four recommendations that might appropriately be mobilized to interrogate particular episodes in the history of science and religion. For convenience, we might consider these as a set of hypothetical imperatives: pluralize, localize, hybridize, politicize” (Livingstone 2011, 282). We will follow this track in order to clarify the five positions we just distinguished, including the results from Chapter 4.

### 2.1 Pluralize

Livingstone’s first hypothetical imperative is to *pluralize* and take both science and religion (or in our case the Christian faith) in their plural forms. Diversity was already part of our research design. The composition of the groups is deliberately plural when it comes to scientific profile, gender, and denominational and ethnic background. These diversities explain some of the differences within the discourses and between the different groups. We will now examine the effect that these four criteria of diversity had on the discourses.

#### 2.1.1 Scientific Profiles

First, we turn to the diversity of the scientific profiles of the participants, and we begin with the model construed by the students from Kinshasa. Most of the participants in this group are from the applied sciences, which is reflected in the group’s model. All epistemological variables from the concept model were changed into more applied terms such as ‘technology’. Also, there is a relatively strong emphasis on ethical variables. However, the specific model cannot only be explained by the disciplinary background of the participants, but also relates to the specific cultural and denominational context found in Kinshasa. This contrasts with specific elements of the discourse of the students from Abidjan, where law and philosophy students played an important
role in the dynamics of the group. As we explained above, some of these students looked for ways to make science more independent from faith, thus giving science a high profile. The strong influence of French thought on the teaching of these two disciplines in the universities of Abidjan, to which the students themselves testified, contributed to what they called a dissociation between science and faith that was not found in any other discourse. Finally, we consider the differences in the participation of natural scientists in the groups (see the list of participants in the annexes). The participation of natural scientists is stronger among the academics than among students. They were especially strongly represented in the academic group from Yaoundé, which could have influenced the group's model building— it was indeed remarkable that they did not take the influence of culture into consideration. However, when culture and the difference between ‘African’ and ‘Western’ were brought into the debate during the second session, it was done so through the initiative of Ayuk, a computer scientist. Therefore, relating this non-cultural perspective exclusively to natural or exact sciences is not justified, but could be a theme for further research. In this respect, we should also consider that the student group from Kinshasa, which consisted for the most part of people from a background related to natural sciences (construction, mechanics, etc.), differed significantly from the Yaoundé academics by paying a lot of attention to culture.

2.1.2 Gender
Concerning gender diversity, we noted in Chapter 2 that the participation in most of the sessions was predominantly male. However, this did not prevent decisive female participation. For example, although the women were a minority in the GMB session with the academics from Yaoundé, Martha was without a doubt the most influential person. She appeared to have built an impressive career as a university administrator, which obviously gave her authority in the group. Another example concerns the student group from Abidjan, which had a nearly equal participation of men and women. This contributed to the very active participation of several women, but it still could not overcome a certain shyness in others. Perhaps the male facilitator was an obstruction for some participants, although other factors could also have influenced this behaviour. Finally, we saw that Keicha, one of the students from Kinshasa, tried hard to have her contribution included, but was not heard by the rest of the group. Although we believe that gender plays an important role in the discourses, we were unable to detect clear indications of a relationship between the content of the discourses and gender participation.
2.1.3 Denominational Background

The groups were also denominationally diverse, although in most groups what we defined as Protestant-evangelical formed the majority. The critical relationship between (African) culture and the Bible in the student group from Yaoundé can be at least partly understood by the dominance of these Protestants in the group. For example, Enow’s argumentation clearly reveals his (Cameroonian) Baptist background. However, the diversity of denominational background did play an important role in the GMB session with the academics from Kinshasa. Here the participants from Pentecostal and Protestant-evangelical churches were visibly impressed by the Roman Catholic professor, Augustin, who dominated the session. When they participated more freely during the next session, the content of the discourse moved in the same direction as that of the students from the same city. However, in general the Pentecostal and Roman Catholic minorities were quite shy and often silent as in the student group from Yaoundé. Apart from Augustin, Nadège was another very active Roman Catholic participant from the student group in Abidjan. Another example of how denominational diversity affected the discourse was the qualification ‘satanic’, used by Martha in the second research session of the academics from Yaoundé. This use had no parallel in the discourse of the students of the same city and so Martha’s expression probably stems from her Pentecostal worldview (Bom 2019). In contrast to the Pentecostals in the student groups, the Pentecostals in the academic groups actively participated. One of the reasons for this is that in these contexts Pentecostals do not always distinguish themselves clearly from what we call Protestants-evangelical in this research. For example, Martha was involved in GBECC for years. Apart from Martha in Yaoundé, Kouassi and Clément were leading Pentecostal voices in Abidjan. It is interesting to note that both Martha and Clément had crucial roles in the development of the most constructive understandings of science from a Christian perspective.

2.1.4 Ethnic Background

Finally, ethnic diversity was an important factor in the discourses, although this was mainly the case in Yaoundé as became very clear in Chapter 4. In general, in Yaoundé the participants from a Bamileke background tended to see great distance and even opposition between Christian faith and their ethnic traditions (Martha, Loic, Janvier, and others). Several participants with different ethnic backgrounds were inclined to perceive this relation as more harmonious (Brice, Patrick, Ayuk, and others). In Abidjan, ethnicity played no major role in the debate on science and Christian faith, although it is interesting to
Understandings of Science and Faith in Yaoundé note that Emmanuel and Nadègeh, who both argued for a more independent understanding of science, were from the same ethnic background. In Kinshasa ethnic diversity was not an issue due to a clear awareness of hybridity and the strongly shared Kinshasan identity in this place (see Chapter 4).

There is, therefore, no doubt that plural perspectives affect these discourses substantially, although the specific effect on the discourse depends largely on the local situation and the persons involved. For example, the denominational difference was felt more evidently in the academic group from Kinshasa, not because Protestants always feel impressed by Roman Catholics in that city, but, more specifically, because the Roman Catholic professor is from a prestigious university and studied in Louvain, and the Protestant participants teach at a poorer and more recently established university. However, these diversities show that shared lines of thought such as the five positions mentioned above reflect local and even personal diversities, as is always the case in comparative research.

2.2 Localize and Hybridize
Locality is an important element of our intercultural approach. However, as we explained in Chapters 2 and 3, we understand the local or contextual not in an isolated sense but in an inter-local and intercultural relatedness. Localize, therefore implies two layers. First, it implies the positioning of the discourses in the concrete context of the three cities in French-speaking Africa, referring to ‘La Kinoiserie’ in Kinshasa and the unrest at the universities in Abidjan, etc. However, we do not pretend to arrive at a local profile; rather, we sketch some lines of a few local particularities, such as the impact of the influence of the Bamileke on the discourses from Yaoundé. After all, the studied discourses do not offer a ‘purely local’ or ‘purely African’ debate on science and religion. On a local level there is a profound awareness of the intercultural space in which science and faith are discussed, and this awareness take a specific, local form as shown in Chapter 4. Therefore, in the second place, we take Livingstone’s localize together with his hybridize (“cross-cultural syntheses of one sort or another” (Livingstone 2011, 285)) to prevent an isolated understanding of the local. We dedicated Chapter 4 to the role of the intercultural perspective in the six discourses and here we build on that analysis.

2.2.1 Abidjan
In Chapter 4 we concluded that the discourses from Abidjan avoided framing science and faith interculturally. We mentioned three major reasons why the groups from Abidjan used this strategy: the fear of conflicts and abuse of
power, the years of assimilation (especially during Houphouët’s rule), and the understanding of Christian identity as needing to keep a certain distance from traditional culture. These reasons also influence the specific way in which the discourses of the two groups from this city relate to the five positions we identified in the first part of this chapter. The most characteristic aspect of the groups from Abidjan is the way in which the student group openly suggested and discussed the dissociation of science and faith (fourth position) without rejecting the understanding of science and faith as belonging to an overarching whole (second position). The openness to position four is especially unique in this research. There is a strong link between this position and laïcité, and this points to the tradition of cultural assimilation that is strongly present in Ivory Coast, particularly in the academic domains of law and philosophy. Far more common is the undeniable influence of the position that opposes science and faith in both groups. In the course of the interactions with the groups it appeared that the churches use this strategy to defend the authority of faith (and themselves) against (independent) science. Although this strategy may be a consequence of certain missionary involvement, in Abidjan it fits the context of assimilation, including the presuppositions of laïcité, and can therefore be understood as a form of indirect assimilation of French culture. Overall, the academics’ discourse is mostly characterized by the second of the five positions from the first part of this chapter: the priority of Christian faith over science. In the student group this position was also successfully defended. In the particular context of Abidjan and its recent unrest, this may be interpreted as a strategy to avoid conflicts. Together with the understanding that Christians are less ingrained in traditional culture (as defended in the academic group) the preference for a concentration on faith can be seen as a strategy to make science less political which could help to diminish the ‘insecurity at the university’.

2.2.2 Yaoundé
The intercultural framing of the science and faith debate, right from the start with the student group and during the second session with the academic group, appears to be shaped by a larger context of cultural politics in which different cultural groups (and maybe different generations and denominations) use different strategies. Most of the academics used a strategy that is oriented towards assimilating the Western scientific profile. This led to a perspective that is opposed to traditional cultural knowledge, which it regards as unverifiable, unchristian, and sometimes even satanic. This focus dominates the discourse and conceals the critical question about the compatibility of
what is called Western science and Christian faith. However, the approach of the academics is not a complete adoption of Western thought. It remains ‘African’ in the sense that it perceives faith and science to be closely related and both part of a bigger whole. This results in a very clear presentation of a particular understanding of science and faith: science is drawn into theology. We argued in the first part of this chapter that this is a position that is explicitly supported by the academics from Abidjan, but it is nowhere so lucidly described as by the academics of Yaoundé. In Chapter 7 we will see that this understanding is quite similar to the approach certain European scholars and scientists developed during the renaissance and early modernity.

However, the students and Ayuk take the cultural differences between Western and African approaches to both science and faith more seriously. The higher susceptibility towards this cultural difference is probably partly generational and seems to indicate the direction in which the cultural politics in Cameroon are proceeding. However, the effects of this sensitivity on the discourse of the student group is multifocal. One sub-group starts with what Brice called the ‘African understanding’ of science and faith and accepts traditional knowledge as a prominent source of science and faith; Ayuk joins their ranks. On the other hand, a more critical sub-group, that includes the Bamileke, starts by prioritising the Christian faith – an option that is described in the first section above. From this perspective, both African and Western sciences should be criticized. This is because those who support this stance also share the idea that science and faith are both part of a larger whole, and they seem to opt for a proper Christian culture that has its own identity and is not dominated by either African or Western culture. This gives the impression that a Christian approach, and especially the Bible, are understood to be super-cultural.

It is interesting to see how in the different (sub)groups from Yaoundé the ‘African’ understanding of science and faith as part of a larger whole takes the lead, although this does not lead to a unified perspective. Different interpretations of the cultural politics in their country contribute to diverse understandings when it comes to science and faith.

2.2.3 Kinshasa
As explained in Chapter 2, the discourses from Kinshasa function as a critical case. Belgium is the ex-colonial power of the DRC, and it did not create a schooling system that obeyed the rules of the French laïcité (see Chapter 3). Does this affect how the participants from Kinshasa perceive science and faith, especially in comparison to those from Abidjan and Yaoundé? In the groups from Kinshasa ‘culture’ is an important theme and refers in the first place to
the vibrant and dynamic atmosphere in the town (cf. Pype 2012, 2015). The ecclesiastical context appears to be an integral part of this cultural setting, as is evidenced above. According to the participants, the Protestant and Pentecostal churches are opposed to many expressions of *La Kinoiserie*, and yet, at the same time, use a certain style of rivalry that corresponds to this culture. In this context, ethnicity is not perceived as an identity marker, and a cultural understanding of what is Western, referring to lifestyle, film, music, technology, etc., seems evident. In both groups, the self-evaluation of their identity as hybrid plays an important role. This does not imply that the African character of their contribution does not play a major role in the eyes of the participants. On the contrary, because of the hybridity, the African perspective is always implied. However, this self-evaluation appears to be unhelpful for a concise understanding of science and faith.

The model of the academics opposes Western and African approaches. This makes the understanding of science and faith in the first place a cultural issue. Although we did not find a clear example here of what was called a ‘dissociation’ between science and faith, as was the case in the student group from Abidjan, the academics from Kinshasa do not come up with an alternative, integrated understanding of science and faith as proposed by the academics from Yaoundé and Abidjan. In the student discourse, the opposition between faith and the world dominates the specific questions about science. The opposition of science and faith was especially noticeable among the Protestants and the Pentecostals. This corresponds to Pype’s observation that the Pentecostal scene in Kinshasa is dominated by forms of dualism. Just as in Abidjan, this could be perceived as an indirect influence of *laïcité*, although this is unlikely because there is no cultural background for this in Kinshasa. Furthermore, the country’s unstable and impoverished situation does not contribute to the search for balanced perspectives. It is therefore impressive that individuals like Gloire can create greater clarity about the way Western and African attitudes towards health care can be combined by integrating modern science and the Christian faith.

### 2.2.4 About Hybridity

At the end of this section we become aware that something more should be said on Livingstone’s ‘hybridize’. One of the most important questions is what the population of our research really mean when they use terms like ‘hybrid’ and ‘hybridity’ etc. Do they mean hybridization in the way Livingstone described it (“cross-cultural syntheses of one sort or another” (Livingstone 2011, 285)) or do they simply mean that their culture is a mixture of elements from different
cultures? If the latter, then science can be understood as a typically Western element, as is affirmed by some of the participants. This appears to be the case for most of the academics from Yaoundé. In all three cities, even translation, one of the instruments of hybridisation according to Livingstone (2011, 287), is invisible in the discourses studied, probably because the entire context of higher education in this country is dominated by the French language. This makes the possibility of a properly ‘hybridizing’ contribution from the African traditions very limited.

There are also some limitations related to traditional African culture when it comes to making a contribution from a scientific or epistemic angle. For example, Feierman and Janzen mention the element of secrecy in traditional African science which is unhelpful for the integration of (Western) science (Feierman & Janzen 2011, 244–245). Notwithstanding the limitations and difficulties, the discourses testify to some interesting overlaps between Western and African science which show that in some areas certain forms of creative symbioses exist despite the difficulties. For example, the biologist Fidèle from Abidjan researches medicinal plants based on traditional knowledge of plants. Another example comes from Gloire’s experience, when doctors from the hospital in Kinshasa sent him out to look for a pastor who could help somebody with severe psychic problems. This confirms what Feierman and Janzen (2011, 248) argue about the openness of African scholars to religion within their scholarly framework. The most adequate instrument of hybridization (in Livingstone’s understanding) is therefore the scientists themselves.

2.3 Politicize

As Livingstone states, science and religion are part of a wider socio-political network and therefore also play a political role (2011, 287). Although politics were addressed in the discourses we researched, in most cases this was neither done very explicitly nor extensively. We learn from the foregoing analysis that the discourses from Abidjan and Yaoundé have a substantial political dimension. The role played by the Bamileke in Yaoundé is very helpful to understanding the role of politics in the discourses. The positioning of the Bamileke in the

56 It was exactly this contrast between secrecy and openness that struck Emmanuel, the philosophy student from Abidjan; see Chapter 4.
57 See Chapter 5.
58 Hybridity will be elaborated on in the next chapter, which offers our own elaboration of this theme.
context of Yaoundé reveals that their self-understanding, expressed during the research sessions as very much involved in education, is also part of their rivalry with the Beti people from central Cameroon.\textsuperscript{59} In this context, higher education is a medium used to strengthen the position of the ethnic group in the nation. Thus, it is not strange that in the student group from Yaoundé an academic degree is mainly perceived as a key to societal success rather than preparation for scientific research. This political dimension in the emancipation of a group is not limited to ethnicity. In Kinshasa, a similar attitude was found among the students with a specific neo-Pentecostal denominational affiliation. Also, in the context of the \textit{églises du réveil}, the emancipation of Pentecostal Christians is a crucial topic.\textsuperscript{60}

In the literature, the continuation of colonial politics after independence is directly related to the powerful position of the president and his peer group and is geared towards the preservation of a certain national unity (see Chapter 3). This is especially expressed in the cultural politics of the regimes. The value one gives to ethnic diversity is therefore immediately connected to postcolonial and international politics, not only from the perspective of the national government, but also from the understanding of the peoples involved. In the academic group from Yaoundé, Ayuk was very outspoken about the political influence on the understanding of science, as evidenced by his referral to the colonial character of Western science and its impact. In the discourses from Abidjan, post-colonial and international politics also play an important role. In Chapter 3 we highlighted how Houphouët's policy of Francophile politics in Ivory Coast during the post-colonial period favoured French education. According to the academics, the consequences of this policy continue to influence current relationships and create enormous tensions with Africanist stances. Of course, this post-colonial collaboration was not only favourable for Houphouët, but also for the French. The field station of Lamto (Ivory Coast) is an interesting example of what was considered scientific 'cooperation' in the post-colonial era during Houphouët's rule. At Lamto, Western scientific theories and approaches were tested in a context in which colonial relations were reproduced and reaffirmed. The French were the ones who profited from the scientific rewards of the collaboration, and the influence on Ivory Coast's education system was negligible (Lachenal 2005).

That said, the political dimension of the Christian faith is hard to trace in the discourses. The situation in Ivory Coast, a multi-religious context with a

\textsuperscript{59} See Chapter 4 for the background of the rivalry between the Beti and Bamileke.

\textsuperscript{60} We discussed the specific political meaning of (different forms of) Christianity in these countries and cities in Chapter 3.
Muslim president, and also in Cameroon, suggests an active and complicated relationship between the Christian faith and its institutions and the government. It is interesting that this was not brought to the fore during the group sessions, although we did mention earlier that the GBU is not politically involved (Chapter 3). In this sense the discourses respect and reproduce laïcité in its political dimension.

3 Part 3: Initiating the Dialogue between French-speaking Africa and the North Atlantic world.

3.1 Some Characteristics of the North Atlantic Debate on Science and Faith

The emphasis on culture in the discourses fits nicely with Livingstone’s understanding when he argues, “science is not a view from nowhere” (2003, 184). This can be jarring to the idea of universality in science, or to a theology that is expressed or understood in a (quasi-)universalist mode. However, the only way to make sense of these debates in a multicultural world is to initiate a serious dialogue on how both science and faith, and their interactions with each other, are influenced by the cultural context from which they are understood. Making a comparison between the debates from different contexts reveals their contextual character and makes it possible to detect how features of certain debates relate to specific contexts, and how they can contribute to debates from other contexts. In the case of these discourses from French-speaking Africa, all groups related the debate on science and faith to the differences between African and Western or European cultures. It therefore seems most fitting to connect the analysis of the discourses to the science and faith discourse in what is called ‘the West’. We will make a start here and continue this dialogue in Chapter 7.

In this dialogue, colonisation plays a central role, as expressed by Ayuk in the academic group from Yaoundé. He argues that the evaluation of science by Cameroonians is ambiguous. The students from this city made this point tangible when they testified that in their country Western medical science has no monopoly on health care, and that the distrust of hospitals and doctors is widespread. Although there is also criticism towards medical care in the West, as seen in the growing so-called anti-vaccination movement (Dubé et al. 2015) and the increasing use of ‘alternative’ medical care, the success of alternative medicine in the West cannot be compared to that of traditional approaches to medicine in Cameroon and other parts of Africa. The Dutch theologian and philosopher of religion, Taede Smedes (2008), argues that the trust that many
Westerners have in science is deeply embedded in their culture, a cultural phenomenon which he calls ‘scientism’. This concept is more generally used for a certain understanding of the value of science and scientific knowledge. Barbour’s definition of scientism, for example, includes “(1) the epistemological claim that scientific method is the only path to knowledge and (2) the ontological claim that matter is the fundamental reality in the universe (materialism)” (Barbour 2008, 260; see also Stenmark 2001, 3–17). However, Smedes relates this term to Western culture as a whole. He understands scientism as “a cultural mode of thinking one of the tacit assumptions of present-day Western culture,” and defines it as “a tacit faith or basic trust in science, an incorporation and internalization of scientific modes of thinking in our everyday-life mode of thinking” (Smedes 2008, 242). This is an interesting perspective that is helpful for better understanding the difference between the context of the researchers and that of the participants in the research sessions.

From a historical perspective, Smedes’ approach sounds plausible. In the North Atlantic world, several varieties of the separation between science and faith qualify the educational systems in a number of countries, including France and other western European nations (Lettinga 2011). As mentioned in Chapter 3, the battle between the state and the Roman Catholic Church, which led to the development of the concept of laïcité, calmed down during the twentieth century, both in France and in other western European countries. Nevertheless, the withdrawal of churches from the public sphere made science an appropriate candidate to gain the monopoly as the normative institution. Thus, Smedes’ argument for a cultural understanding of scientism sounds logical in the western European context. Independent science, or a science not officially bound to a religion or a specific philosophy, creates its own ‘culture’ in which science is the norm.

It becomes even more interesting when Smedes identifies scientism in the science and religion debate with the position that others have called ‘theological naturalism’. This position, he argues “seeks to describe divine action in the same terms that in other parts of life are used to describe natural phenomena” (Smedes 2008, 245). Here he makes a connection to the work of Ian Barbour, who, for a long period, was one of the most prominent voices in the debate on science and religion from the North Atlantic world. In order to cluster the different positions in this debate and create an overview, Barbour sets out four major types or models. These capture distinctive features of prominent Western understandings of what is called the relationship between science and faith. Barbour distinguishes the conflict model, in which science and religion are perceived as being opposed to each other, from the independence model, in which both science and religion are understood as independent domains.
Barbour sees two further ways of understanding the relationship between science and religion which he labels ‘dialogue’, the approach that perceives science and religion as dialogue partners, and ‘integration’ in which the two are integrated (Barbour 1997, 77–105).

Barbour’s typology offers the possibility to relate the distinct types to the positions we analysed in the first part of this chapter. The first two positions of our analysis present the fundamental coherence of science and faith, and therefore point in the direction of what Barbour calls ‘integration’. In particular, the discourses of the academics in Yaoundé and Abidjan, as well as the model of the students from Abidjan, could be qualified by what Barbour calls ‘natural theology’, a variant of the integration model. Barbour mentions an example of this natural theological approach when he refers to “the fine-tuning of the physical constants in the early moments of our universe (the Anthropic Principle)” as a theory that can reasonably be linked with God’s creation of the world (1997, 98–99; 2008, 267). This approach contrasts with the French notion of laïcité, the official norm in state universities in Abidjan and Yaoundé. Rather, laïcité is included in the category that Barbour calls ‘separation’ or ‘independence’ (Barbour 2008, 266). In the fourth section of the first part of this chapter a similar position is called the ‘dissociation of science and faith’ which is related to the proposal of two students from Abidjan. Finally, similarly to Barbour, we distinguish a category called ‘opposition’, which understands science and faith as two rival dynamics. Though we can perceive similarities, we want to make it clear that we are not (yet) identifying Barbour’s types with the positions we distinguished. Before doing so, we should know more about the difference between the Western debates and the discourses from French-speaking Africa.

The following discussion between Barbour and Smedes appears to be a useful instrument in our search for clarification. Smedes targets Barbour’s approval of the position of natural theology. He argues that Barbour, especially in his later publications, implicitly advocates a form of scientism by his preference for the ‘unification’ of science and religion. According to Smedes, Barbour aims at an Einheitswissenschaft (united science), as becomes clear in his support of Whitehead’s process approach. Smedes understands the proposals of two other well-known voices in the debate, Polkinghorne and Peacocke, to follow along the same line. In contrast, Smedes opts for a categorical difference between scientific and religious language (2008, 249–254). In a response, Barbour objects to the idea that Smedes’ defence of the independence model “cuts off any possibility of constructive interaction” (2008, 266–267). However, according to Smedes his preference for a form of separation between science and religion is the (only) way to prevent cultural scientism which tends to assimilate
religion into its astronomical project of understanding everything. For him, the integration model is still tainted by the culture of scientism.

3.2 Initiating a Dialogue between Western and French-speaking African Understandings of Science and Faith

The discourses from French-speaking Africa in this study show that a different dynamic is in charge here than in the Western debates. Comparing the analysis of the discourses from French-speaking Africa with the debate between Barbour and Smedes from the Northern hemisphere, the proper character of each comes out. We first examine the studied discourses. First, cultural scientism à la Smedes is not mentioned in the discourses, and, considering the contexts, it is probably not even imagined by the participants. As we argued above, it is a challenge for African scientists such as doctors to be taken as seriously as the marabout, the priest, or the pastor. Second, the research of these discourses from French-speaking Africa clarifies that true independence of science and faith does not even seem to enter the logic of the participants. The students Nadège and Emmanuel from Abidjan experienced strong control from the churches after simply requesting more freedom for their scientific development, but nevertheless they stuck to one truth: the fundamental bond between science and faith. However, their fellow students interpreted this as dissociating science and faith. This is also reflected in the understanding of laïcité by many Christians at the university. During the preparation phase of this research, we talked with several academics and students in the three cities and touched on the issue of laïcité. For most of them, laïcité appeared to be a rule about how society is organized and not an understanding of reality. Third, the analysis above shows that the participants can indeed perceive science as independent, but this is specifically when it is viewed as culturally different. As seen in the model of the academics from Kinshasa, Western science can be opposed to African faith. However, when they identify themselves as African academics, they cannot see their scientific activities as independent from faith, as is evidenced by the discourses of the academics from Yaoundé and Abidjan. The students’ lack of identification with ‘science’ could be one of the reasons why the students’ discourses, especially in Yaoundé, are characterized by a certain ambiguity towards science. Fourth, when there is a complete absence of identification with (Western) science, as is often the case for traditional leaders and churches, science remains something from ‘outside’ and is apparently perceived as being opposed to the proper values. This therefore implies an opposition between Western and African understandings of science and faith. Christian students and academics are easily exposed to this understanding when they participate in church activities such as Sunday
worship; and this is especially true when the pastor has no identification with science.

From the logic that lies behind the discourses, Smedes’ defence of the independence of science and faith as the way forward for the dialogue between these two seems hard to understand. In fact, Barbour’s preference for integration sounds far more logical in the context of the studied discourses and seems to correspond with the intentions of most of the participants. Nevertheless, there are some complicating factors that resist the easy identification of this position in the discourse with Barbour’s integration model. It is without doubt that Barbour, like Smedes, has a typical ‘Western’ conception of science, as the participants in our research would say. It is evident that Barbour understands science and faith to be independent realities, thus reflecting the dominant mode in Western modernity. His typology consists of putting these two independent ‘entities’ in different constellations. Integration is one possible way to relate these independent entities: science and faith. In contrast to the participants of our research, neither he nor Smedes need a cultural identification (‘Western science’) to come to a mainly independent science. In Chapter 7 we will address the universalist outlook that is often related to the Western understandings of science and faith. Integration in this context means that the independence, and therefore (a kind of) the autonomy, of both is respected; specifically that of science.61 This is clarified by an example Barbour mentioned. When he links the fine-tuning of the Anthropic Principle with creation, he indicates that both independent perspectives (or, when faith is identified with theology, ‘theories’) can mutually clarify each other in such a way that this leads to an integrated perspective. This integration, however, is often unbalanced, in the sense that faith, in this case belief in creation, is thought to be clarified by science, i.e. astrophysics, and not the other way around. Regardless, it would be making what could be called a cultural mismatch (an erroneous identification of things from different cultural off-spring) to interpret Barbour’s integration from the perspective of the priority of faith which was the dominant way of understanding the togetherness of science and faith in the studied discourses. There is no priority of faith in Barbour’s integration, because both science and faith are understood as originally independent phenomena that subsequently need to be related to each other.

This insight may help those in our research with perspectives similar to the ‘priority of faith’ understanding to open up to the merits of Smedes’

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61 In Chapter 7 this will be placed in a historical perspective which clarifies why the protection of science (and not that of faith) became a major goal of modern understandings of science and faith.
understanding. With the term *Einheitswissenschaft* (united science) and the reference to Whitehead, he indicates that he understands Barbour's 'integration' as reflecting the dominance of (modern Western) science over faith and theology. His defence of the complete independence of science and faith (and thus *laïcité*) aims to safeguard the proper perspective of faith, and to prevent faith (or theology) being abused by science, which he believes to be (a form of) 'scientism'.

All this shows that there is no natural connection between the positions in the Western debate on science and faith and the positions from the discourses. Neither Smedes' separation nor Barbour's integration perfectly correspond to the views expressed in the discourses. The idea of an autonomous science does not appear to be part of the inherent logic of the discourses. In general, the participants perceived the idea of an independent science as something 'Western' that is not completely 'ours'. According to the academics in Abidjan and Kinshasa, their involvement in this affair leads to 'hybridity'. Especially in places where pan-Africanism is flourishing, it is not the obvious choice to prefer the Western way of understanding science and faith, as becomes especially clear in the student discourses in Yaoundé and Abidjan. This makes academic science a typical Western approach which affects its attachment to 'African cultures'. The dialogue also clarifies how the Western debate is dominated by secular presuppositions, such as the idea of a non-religiously informed, or neutral, science. At the very least, the first positions we analysed in the first part of this chapter cannot be situated in Barbour's typology. This implies that they are out of its scope, and that Barbour's typology should therefore be enlarged in order to make debate between Western perspectives and the African perspectives of participants in this research possible.

4  Outlook

The analysis of the discourses from Abidjan, Yaoundé, and Kinshasa and their comparison with the Barbour-Smedes exchange shows that these debates in both contexts are related to fundamental cultural issues. Setting up the conditions for a proper dialogue on science and faith between Westerners and (French) Africans is therefore important for mutual understanding and interaction. In light of the traditional Western arrogance, especially in the field of science, and the strong post-colonial resentments we encountered in Africa, there is a lot work to do before such a dialogue can really bear fruit.

The dialogue we initiated in the last part of this chapter reveals the deep contextual character of the debates. The stances of both Barbour and Smedes
are related to the very strong position of science in North-Atlantic societies, while the African responses to science and faith relate to their post-colonial situation. In Cameroon, the DRC and Ivory Coast, science is still distrusted as ‘the magic of the whites’ or is at least not perceived to be the most effective type of knowledge in all domains of life. Therefore, our search for an intercultural debate implies that contexts should be taken seriously, because that helps us to recognise that both the discussion and positions taken relate to specific circumstances. In the next chapter we will indicate that, by building on this recognition, an intercultural dialogue can also move beyond the recognition of the particularities of this context to an intercultural engagement.

The North Atlantic debate shows how important science is for the world today. Africa, in its own development, will also have to take science more seriously and will have to search for intense cooperation with other world regions which respect and encourage the proper approaches from this continent. The need for the North-Atlantic world is different.

Alternative approaches to science (and faith) from other cultural contexts, such as those from French-speaking Africa, are indispensable for understanding the limitations and the blind spots of many Western approaches. The discourses from this study clarify that the North Atlantic debate is trapped by secular presumptions. In the end, science is broader than ‘Western science’ because it is intertwined with religion (including secularisms) and with colonial and post-colonial power structures and is often related to other cultural expressions and powers. The idea of an independent science is not only difficult to appropriate for those who participated in this research. Elaine’s Howard’s research in eight countries around the globe shows that “Coupled with the heightened prevalence of the collaboration view in India, Hong Kong, and Taiwan, this suggests that religious tradition and regional context play an important role in the science-faith interface” (Howard Ecklund e.a.2016, 6). Only when the specific Western conceptions of and approaches to science are recognised and discussed more openly, can the debate about science and faith truly become intercultural.