CONTEXT AND CATHOLICITY IN THE SCIENCE AND RELIGION DEBATE

Intercultural contributions from French-speaking Africa

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THEOLOGY AND MISSION IN WORLD CHRISTIANITY

BRILL

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Preface

'The debate on science and religion' and 'French-speaking Africa' make an unusual combination of fields of study. For years the fact that this debate was not related to cultural diversity was considered only a minor issue. The majority of participants in these discussions were from the North Atlantic world. Not even the effect of the cultural diversity within this North-Atlantic world was made explicit or studied. However, lately, and for several reasons, the 'Western' dominance in the debate, is considered to be too restricted, and there is concern that it does not allow for new understandings of what science and religion might mean. This book testifies to the growing interest in the different cultural embeddings of science and religion and proposes a theoretical framework that makes an intercultural debate possible.

In our study we focused on the discourses of Christian students and academics from three cities: Abidjan, Kinshasa, and Yaoundé. This implied a thorough study of what could be called 'lived theology' and therefore an interdisciplinary approach was necessary. Although the Science and Religion interface requires some form of interdisciplinarity anyway, the current blossoming of interdisciplinary approaches in theology makes a proper *theological* perspective on the debate on Science and Religion even more necessary. Our aim is to relate the outcomes of the field research to a worldwide perspective of doing theology, and to connect with a broader scope of scholarly discussions. This study therefore makes a contribution to at least five areas of study. In the first place, it is a contribution to the study of world Christianity. This case study particularly presents a detailed analysis of how different cultural influences interact to form new cultural realities. This study secondly contributes to the broader field of cultural studies that is interested in the shaping of multiple modernities. In the third place, this study contributes to historical and anthropological studies that relate the broader science and religion debate to particular cultural and social contexts in which the debate develops. Fourthly, this study is also intended as an intercultural contribution to the global science and religion debate. And finally, this project intends to contribute to the development of the discipline of intercultural theology by exploring how local interactions of the Christian faith in complex cultural environments can contribute to a Christian theological conversation worldwide.

This monograph is the result of a close and creative collaboration between the two authors, with Benno van den Toren as project leader and Klaas Bom as co-leader and principle investigator. Benno wrote chapter 1 and the first part of chapter 2 and made a robust contribution to the section 'Christianity in Africa'

in chapter 3. Klaas wrote the second part of chapter 2 and chapters 3, 4, 5 and 7. Chapter 6 involved the most intensive co-writing, with a first layer by Benno, further elaboration by Klaas, and a final arrangement by Benno. As a result of this collaboration an attentive reader will be aware of some differences in the style and vocabulary in the chapters. However, we accept joint responsibility of the project as a whole and of the outcomes and conclusions. We decided to integrate substantial number of original interventions made by the participants in the footnotes. In these texts, which are transcriptions made by local students, we deliberately maintained the strong local flavour.

This book is the outcome of a collaboration between the Protestant Theological University Groningen and the IFES student organisations from Cameroon (GBEEC), Ivory Coast (GBU-Côte d'Ivoire), and D.R. Congo (GBU-R.D. Congo) and funded by Templeton World Charity Foundation, as is further explained in chapter 1. We are thankful for having been a part of this dynamic cooperation involving people and organisations from three continents, and thus including many cultural differences. Starting in Africa, we want to first thank GBEEC, a Christian student organisation from Cameroon that was eager to take part in this adventure from the very start. They created room for a proper office for the project in their building in Yaoundé. We especially thank Alphonse Teyabé, the national secretary of GBEEC, and his team for building the crucial relationships on the ground, for practical support, and for their role as conversation partners and as a sounding board. Lynda Zegha was our Yaoundé based assistant whose formal role is described in chapter 2. During the three years of research she has been the reliable, inexhaustible, and deeply motivated facilitator of the research process. It was a joy to work with her. The support in the other cities was of a similar level. We enjoyed working with Sai Matthieu Guei, national secretary of the GBU in Ivory Coast, and his dynamic team in Abidjan. In Kinshasa, Roby Vumi did a wonderful job of facilitating the first research sessions in Kinshasa despite having already left his position as national secretary. This work was later continued by Aristide Lathoum, the new national secretary of GBU R.D. Congo at that time. The organisation and participation of both men and their teams was incredible. We also enjoyed the participation of academics from Africa and Europe who made contributions to the conferences we organized in the three cities. We thank Dr. Hendrik Stouten and Drs. Brigit Fokkinga from Nijmegen School of Management for their help with the use of Group Model Building and the nice cooperation. We are deeply indebted to all the participants of the research sessions, especially those who participated in two or even three sessions. We thank these people for enriching dialogues and the possibility to be a part of their communal lives and to share

in their faith. We would like to dedicate this book to them because it was their contributions that made the research possible. Thank you.

We thank the Protestant Theological University for being a hospital home where this research was welcomed, guided, and discussed on various occasions. We thank our colleagues, especially the people from the research group Intercultural theology in Groningen and those from the Beliefs department in Amsterdam and Groningen, for their interest, suggestions and support. We express special thanks to Professor Dr. Mechteld Jansen, the rector of the University, and Dr. Rein Brouwer, whose critical support as members of the advisory board was of great help. We also make special mention of Josien Rigterink of the financial department at the PThU, who took care of the many financial complexities of this intercultural endeavour. By their well-informed, attentive, and sensitive way of editing, Sam and Peter Bussey have contributed substantially to this book. Thank you also to the student assistants, Tirtsa Liefting and Lois Bakker, who supported us in the editorial process and in various aspects of the organization.

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We thank the series editors for their openness towards accepting a manuscript with a somewhat different focus. Although this book fits well in the category 'Theology in World Christianity', the science and religion debate makes it an unusual fit. Thank you also to Mirjam Elbers and Ingrid Heijcker-Velt of Brill publishers who handled the process so gently and skilfully. Finally, we say thank you for the useful suggestions of the two anonymous reviewers, and to Elaine Howard Ecklund, Gijsbert van den Brink and John Brooke, who gave us insightful comments on drafts of the chapters of this book. We are filled with gratitude to so many people and to God for making the research and publication of this book a reality.

CHAPTER 1

Setting the Scene for the Project 'Science and Religion in French-speaking Africa'

This project studies the discourse of university students and academics in three major cities in French-speaking Africa. It is an interdisciplinary project and makes contributions at the intersection of several lines of inquiry. As such, it is in line with the growing realisation that debates concerning the relationship between science and religion are both geographically and culturally located (Livingstone 2003; Brooke and Numbers 2011). We use a social scientific approach to achieve a better understanding of the possible contributions that French-speaking Africa can make to the global debate on science and religion. We then bring these local insights into dialogue with other strands of the science and religion debate, which, for the last few centuries, has been dominated by North Atlantic perspectives. This demands an interdisciplinary conversation between insights acquired using social scientific methods and theological and philosophical positions concerning what we call 'the relationship between science and religion'. From the start it should be clear that we use the term 'sciences' to describe all academic disciplines. This matches the way the participants of the field research use the term and makes it possible to research how academia and academic formation are appreciated more generally. Chapters 4 and 5 show that this appeared to be an important issue among the participants.

This study locates itself in the emerging field of intercultural theology: the theological study of, and dialogue between, varying religious perspectives in terms of how they exist in relation to their respective social and cultural environments (Frederiks, Dijkstra, and Houtepen 2003; Küster 2005; Cartledge and Cheetham 2011; Toren 2015 c). This promising yet young theological discipline is still in considerable flux, and we hope that this project will contribute to both the self-understanding of the discipline and to its methodological explorations. In the context of this project, these methodological considerations are particularly stimulated by our desire to engage in a project that is theological, not only in the sense that it studies religious or theological positions, but also in the sense that it uses these to engage in the study of God in terms of God's relation to this world. After all, these theological questions are crucial to understanding what is often called 'the relationship between science and religion' or 'science and the Christian faith'. Other methodological reflections are

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prompted by the desire and need to include the 'espoused theology' of Christian students and academics as a source of theological insights. This in turn demands reflection on the relationship between 'espoused theology' and 'formal theology' and on the question of how to best gain access to this espoused theology (see also Chapter 2).

The priority we give to intercultural theology helps to explain the way in which we deal with social scientific and theological questions, and this also influences the research outcomes. For example, it means that we do not address some of the issues and questions that are usually discussed in the social sciences. For example, the sociological emphasis on institutions, or the role of churches, is only superficially discussed. Even some typical systematic theological themes, such as the richness of the Christian understanding of creation, are only touched upon. Nevertheless, although this research concentrates on the science and religion debate, it also contributes unique data and insights relevant to other areas of inquiry that connect theology and the social sciences. Recent decades have seen the development of global Christianity as a field of study (e.g., as popularized in Jenkins 2002; Jenkins 2006). In these studies, much attention is given to the interaction of Western Christianity with traditional cultures and other religious traditions. Modernity, however, provides another crucial component in this mix of intercultural encounter and engagement. In the process, one sees the development of 'alternative' or 'multiple modernities', which reveal that the European model of the encounter between modernity and pre-modern traditions is not the only model, and is far from inevitable as has often been assumed (Gaonkar 2001; Berger 1999; Wagner 2015). In Chapter 6 we discuss the importance of the notion of 'alternative modernities' in relation to the findings of the research. The research presents a case study of cultural interaction between different traditions in French-speaking Africa, and, thus allows us to study what we call the anatomy of the interculturation of the Christian faith in specific cultural contexts.

This book presents the results of the research and consists of three parts. The first three chapters offer a presentation of the theoretical and methodological framework used and introduce the contexts of the research. In the second part, the three case-studies – the discourses from Yaoundé, Abidjan and Kinshasa – are described and analysed in Chapters 4 and 5. The third part examines the relevance of the studied discourses for the further development of intercultural theology (Chapter 6) and the ongoing global debate on science and religion (Chapter 7). In this first chapter, we set the scene for the project. We first argue for the need to locate the science and religion debate in the multiple cultural and religious contexts in which it unfolds. We argue that both 'science' and 'religion' as concepts and as practices are socially and culturally

located. This also invites us to clarify our understanding of the relationship between the concepts 'religion' and 'Christian faith'. Furthermore, we explain why French-speaking Africa is a particularly fertile soil for the exploration of the cultural particularities of the science and religion debate, but also confronts us with a number of special challenges. Finally, we sketch and explain the main characteristics of this project's design, paying special attention to positionality. The theoretical and methodological issues related to the notions of intercultural theology, the use of discourse analysis as an analytic approach, and our choice of Group Model Building and focus groups for data collection will be discussed in Chapter 2.

1 Which Science? Whose Religion?

Discussions of the relationship between science and religion are often conducted as if they play out in a historical vacuum. However, detailed historical studies have shown that social and cultural geography has a significant influence on how concrete exchanges between scientific theories and religious beliefs have played out. David Livingstone, from whom we have derived the title of this section (Livingstone 2011; cf. MacIntyre 1988), has for example shown how Darwinism was received differently by Calvinists with similar theological convictions in Belfast, Edinburgh and Princeton depending on crucial aspects of their respective social and cultural contexts (Livingstone 1999). If this is the case within the context of Western science and religion debates, it is to be expected that the role of the cultural context will increase when one starts exploring widely divergent cultural contexts such as Africa, Asia, and Latin America and their sub-regions. Indeed, the limited number of regional studies (e.g., Silva 2014; Kim 2014) and collections (Fennema and Paul 1990; Brooke and Numbers 2011; *Zygon* 50.2, 2015) that are currently available demonstrate that this is the case.

The importance of the cultural location of the science and religion debate is partly a consequence of the fact that the development of science is itself socially located, as became clear through Thomas Kuhn's landmark study *The Structure of Scientific Revolutions* (1996). Kuhn showed through his historical study that the scientific theories that are considered most adequate by specific researchers are not only dependent on the experimental data available, but also on the scientific paradigms that are most widely accepted. Paradigm change therefore demands a veritable revolution.

The role of social and cultural location may be even greater when one looks at religion as the other pole of the equation. The formulation of a 'science and

religion' debate assumes that both entities, science and religion, have relatively fixed meanings, though it has been argued that both only received their current meanings in the 19th century (Bagir 2015, 408). It furthermore presupposes a certain symmetrical relationship between the two that can be conjoined by 'and' (Bagir 2015, 406).

The notion of religion itself always reflects a particular religious tradition. Western understandings of religion may have parallels in notions such as *dharma* (in Hinduism) or *dīn* (in Islam), but these notions only partially overlap. When one reads of other religious and cultural traditions through the lens of a certain understanding of 'religion', it always highlights certain elements, hides others, and has the potential to skew crucial aspects of the traditions. Some would therefore say that how one understands 'religion' itself is always a cultural construct (Auffarth and Moher 2006). Furthermore, one might also argue that how one understands 'religion' always reflects certain theological presuppositions that need to be brought out into the open and properly questioned (Toren, 2017)

Even though the Christian religion has profoundly shaped North Atlantic cultures, one needs to be careful not to equate the dominant Western understanding of religion with a Christian understanding. The dominant concept of religion has itself been shaped by social conditions after the Enlightenment which led to the development of an increasing domain labelled as 'secular', which is deemed to be outside the legitimate sphere of influence of religious authorities (Asad 1993, 2003). These concepts of religion were furthermore shaped by the influence of modern science itself. According to Jan Platvoet and Henk van Rinsum,

> in the modern West … the huge development of the natural sciences since Newton has had immense consequences for its cosmology: it forced the 'spiritual' to retreat to the 'transcendent' and placed an ever thicker cosmological ceiling between the spiritually empty perceptible realm, and the (postulated) meta-empirical world(s) of spiritual beings, causing communication with it or them to atrophy and religion to be conceived no longer as communication but as meaning, concern or cosmology.
>
> PLATVOET and RINSUM 2008, 170

In this context, certain approaches to the science and religion debate will automatically have a cultural advantage. Consider, for example, Stephen Jay Gould's NOMA principle, the notion that science and religion represent 'non-overlapping magisteria' with different authorities in separate domains of life (Gould 1999). If one lives in a cultural environment where the definitions of science and of religion are both shaped by social pressures to carve out a

separate sphere for science that is independent of the influence of religious authorities, the notions of science and religion shaped in this context will themselves give the NOMA principle a certain degree of immediate attraction or even culturally determined self-evidence – unless of course there are aspects of one's understanding of either science and/or religion that mitigate against these clear-cut separations, aspects that have also remained present in the North Atlantic world.

2 French-speaking Africa

This study contributes to intercultural dialogue concerning the interface between science and religion by studying perspectives from French-speaking Africa. We have opted to study this region because it provides the setting for the confluence of three different cultural influences: African traditional cultures/religions, Western colonial and postcolonial involvement, and, relatively independent of the latter, Christian mission and African Christianity. This creates a context in which an 'alternative modernity' could possibly be developed. Apart from a number of less important cultural influences, Islam also represents a major cultural factor in this region. Most university students and academics would be influenced by three major cultural influences: either traditional culture, modernity, and Christianity, or traditional culture, modernity and Islam. Yet, they are mainly influenced by *one* of these world religions (Christianity or Islam), but not by both of them to the same degree, or even close to the same degree. Within the confines of this project we could not study both, so we opted to focus on Christianity. All participants in the research are Christians and are not profoundly influenced by Islam, although in Abidjan some of the participants came from mixed religious families.

With the label 'French-speaking Africa', we refer to a collection of around 16 nations in sub- Saharan Africa that use French as the national language or one of the national languages. This use of French as the language for education and administration is of course a colonial heritage in countries that used to be either French or Belgian colonies. The number of countries that use French as a national language is in flux, because the role of European languages, and of French among these, is a crucial aspect of post-colonial cultural politics. The change to English as the language of education in Rwanda in 2008 shows that these matters are not fixed. Moreover, it also shows the interests that are at stake in these choices.

On the ground, cultural divides between former English and former French colonies are not sharp, and modern-day national boundaries often go right through areas inhabited by the same ethnic groups. However, our focus on

French-speaking Africa makes sense for the purpose of this study. We are interested in the intercultural exchange between African traditions, Christian faith and modern science. Educational politics have been deeply influenced by colonial interests, and the introduction of science in French-speaking Africa has been influenced by the French notion of the *laïcité*, or the 'secularity' of public education and science, a notion that will receive further attention in Chapter 3. This means that this region in Africa has experienced the introduction of the Western academic tradition with the sharpest separation or even opposition between science and religion.

For our project we have selected three major university cities: Abidjan in Ivory Coast, Yaoundé in Cameroon and Kinshasa in the Democratic Republic of Congo. Abidjan and Yaoundé are university cities that are shaped by French colonial history, while the Democratic Republic of Congo is a former Belgian colony and has not known the same separation between church and state. Kinshasa therefore functions as a contrasting case study and a test for our study of the unique influence of the French *laïcité* tradition in the other two university cities. Because of the influence and history of its university, we could also have selected Dakar in Senegal, which hosts the only university in French-speaking Africa that was founded in the colonial era before independence. However, we did not select Dakar because Islam is by far the dominant non-African religion in Senegal and it would therefore be less well suited for studying the cultural interaction between African traditions, Christian mission, and Western science.

A second crucial influence that shapes the debate on science and religion in French-speaking Africa is Africa's pre-colonial traditions. This is of course what is historically 'first' and appears to provide a fundamental layer to the discourses. It might be misleading to speak of 'African Traditional Religions' because this might suggest that one could isolate certain beliefs and practices as 'religious', which does not do justice to the profound way in which what in current Western discourse would be labelled 'religion' is intertwined with all aspects of life. This also means that practices that in other contemporary contexts are labelled as 'science' (such as questions of metallurgy and ecology) are intertwined with religious practices (Feierman and Janzen 2011). This does not necessarily mean that Africans are 'notoriously' or 'incurably religious' (Mbiti 1969, 1; Parrinder 1969, 235; Magesa 1997, 25ff.) or 'religiocentric' (Okorocha 1992, 169; for criticism of this idea, see Messi Metogo 1997; Toren 2003; Platvoet and Rinsum 2003). It does, however, mean that one can find elements of practices that in modern Western culture would be labelled 'religion' and those that would be labelled 'science' but without being able to separate these fields. This heritage is still pervasive in modern post-colonial Africa, as Cyril Okorocha points out,

> The African professor of atomic physics, for instance, sees no contradiction between his scientific knowledge and his consulting the 'native doctor' for 'help' in gaining special insight into his research. A professor of obstetrics and gynaecology may send his wife to a 'Prayer House' or to his or her illiterate grandmother to enlist the help of a herbalist or a native conjurer to make conception possible even if his Western scientific investigations have shown that the woman has lost both fallopian tubes, for instance, and may have reached menopause.
>
> OKOROCHA 1992, 169

This makes Africa a particularly apt point of comparison for Western science and religion debates. It allows us to study the discussion on science and religion in a context where the pre-colonial heritage is still present, even if we cannot say beforehand in what way or to what degree. Furthermore, it provides us with a context in which 'the supernatural' or 'spiritual' is experienced as a pervasive reality and is not so much at odds with the scientific enterprise as in the dominant North Atlantic culture. Yet, as with the use of notions such as 'religion' and 'science', we need to be conscious that the concept of 'the supernatural' can easily skew our analysis. A concept of 'the supernatural' shaped by Western understandings of nature and approaches to the 'natural sciences' is likely to be quite different from one developed in Africa, where nature might simply be understood as having more aspects or layers to it. As expressed by Steven Feierman and John Janzen,

> Sub-Saharan African history of knowledge should prove very instructive in grasping the character of a way of apprehending the world that while it fosters knowledge for a variety of practical ends, is open to the continuous interaction between visible and invisible, worldly and sacralized realms.
>
> FEIERMAN and JANZEN 2011, 231

The Christian faith forms the third major flow in this intercultural exchange. As we will further explain in Chapter 3, one cannot simply subsume Christian mission as one aspect of colonial influence or one of the means used in the colonial agenda. There were regular tensions between missionaries and colonial powers, such as e in the area of educational policies for example. In the field of healing – one of the crucial areas of interaction between 'science' and 'religion' in sub-Saharan Africa – missionaries presented an alternative to the colonial discourse and practice (Feierman and Janzen 2011, 230; Bosch-Heij 2012). The translation of the Bible into indigenous languages furthermore allowed recourse to biblical stories that were used to justify healing practices in

African Independent Churches and neo-charismatic movements, but also in churches originating in Western mission movements. This provides another Christian discourse that can be clearly distinguished from the colonial and the missionary discourse (see among the many examples Milingo 1984; cf. Haar 1992; Bosch-Heij 2012).

The focus on French-speaking Africa also confronts us with specific challenges. In other parts of the world, one could turn to literary resources in which a local science and religion discourse is captured. An example would be the Vedic Science movement, which is based on Advaita Hinduism and aims to present an alternative to the Western science and religion dialogue (e.g., Dobson 1983; Sriraman 2005; Sriraman 2013). Apart from the dialogue on science and religion in white communities in South Africa (Conradie and Du Toit 2015), we have found few examples of academic texts engaging with the science and religion debate in sub-Saharan Africa. When we asked for authors in this field among theologians in the cities of our research, two names were mentioned: Makanzu and Bame Bame. The impressive work of the Congolese theologian Makanzu Mavumilusa, *Quand Dieu te gêne* (1986), makes an original contribution from French-speaking Africa. The author initiates a debate from African Christianity with Western scientific views from different disciplines, attacking the strong atheist tendency among the Western scientists. However, the author relies on theories of the sixties and seventies and for that reason is somewhat outdated. More importantly, however, we could not find this book in the theological libraries of the three cities we visited, nor was it quoted by any of the participants. The book was published in Germany and seems to have had a very limited distribution in both Africa and Europe; its influence therefore is very restricted. Also, while the Cameroonian theologian Michael Bame Bame is known for his engagement with the sciences, this did not result in the development of a well-developed perspective on science and faith published in the form of a book or an article (Cf. Bame Bame 1994). This means that the proper contribution of African discourse to the worldwide science and religion debate can only be discovered when one studies the espoused discourse within the academic community. This demands empirical investigation, which is one of the reasons why we opt to use Group Model Building and focus groups (see Chapter 2).

3 'Science and religion' or 'science and Christian faith'?

So far, we have spoken alternatively about the 'science and religion' discourse and the relationship between 'science and Christian faith'. This relationship

between religion and Christian faith needs further clarification. The questions "Which science? Whose religion?" imply that one cannot discuss the science and religion discourse using a general notion of religion. As indicated before, this risks imposing a limited notion of religion on a particular religious tradition that does not do justice to it (Auffarth and Moher 2006; Bagir 2015), and it suggests that the notion of religion is theologically neutral (Toren, 2017). Using the term science leads to similar problems of course. As we will see in this research, the participants' identification of science with Western culture not only refers to the origin of modern science but also indicates that it is dominated by, and is therefore at the service of, Western cultures. In this project we focus on groups that self-identify as Christian, but, from this perspective, we also intend to contribute to the wider science and religion debate: it is by starting with the study of science and religion discourse embedded in particular cultural and social contexts, and interacting with particular religious traditions, that we intend to contribute to the broader academic study of science and religion.

Our interest in the Christian faith means that we have selected university students and academics who self-identify as 'Christian'. We have consciously invited representatives of different Christian traditions, although the choice of our partner organisation means that the majority of participants come from evangelical Protestant backgrounds. We did not put any further limitations on the selection of participants and thus in theory we could have had participants with dual religious identities. However, in the course of the research we have not encountered any participant who identified as both Christian and Muslim (which is very unlikely in these contexts in Africa) or as both Christian and an adherent of an African traditional religion (though certain participants were open to the possibility that people who self-identify as Christian could integrate certain traditional practices that others might label as 'religious').[1] Positive relationships with African traditions were mostly discussed in terms of 'African traditional culture', presumably with the presupposition that African traditional religion and African traditional culture could be sufficiently distinguished.

'Christian faith' is used in both a descriptive and normative sense. It is used descriptively because we are interested in eliciting and understanding the espoused theologies of academics and students who self-identify as Christians. In that sense one could use it in the plural, as 'Christianities', as is becoming increasingly popular amongst those who study worldwide Christianity in order to do justice to the large diversity between Christian expressions in different

1 See Brice's contribution in Chapter 4.

parts of the world and existing next to each other in the same space (e.g., Gilley and Stanley 2006; Padilla and Phan 2016; Tishken 2015). However, 'Christianity' is also used in a normative sense by members of the Christian community. This is the case in the discourse itself, where participants converse about the question of which approaches to one's 'field of study' or 'academic field' are more or less faithful to one's Christian faith and to its normative texts and traditions, or the normative presence of God in Christ and the Holy Spirit. Other questions, such as what the social and cultural environment requires, have a subordinate place in the discourse.

Different religions focus on disparate theological issues in the science and religion debate. As a result of their belief in God as the Creator and redemption happening in history, mainstream Christian traditions have considered exchanges with the scientific study of nature and history unavoidable and even beneficial, which might not be equally true for other Christian traditions. Christian faith is the main religious tradition examined in the North Atlantic debate on science, and this makes intercultural dialogue relatively easier than it might have been between radically different religious traditions, although the cultural differences can complicate the dialogue considerably. For example, Zainal Abidin Bagir expresses concern about the tendency to focus the science and religion debate on 'cognitive truths' when, in other religious contexts, 'practices' would be a much more significant expression of religion (Bagir 2015, 406). Realising that the Christian faith, like other faiths, is a multilayered reality, and that this is also the case in the way it relates to science, is an important reminder for our research. For example, in the following discourse analysis this point becomes clear through the attention given to issues of (colonial) power relations. Yet, the particular attention paid to 'beliefs' and 'worldview' in the study of religion may not be a modern Western imposition on Christianity, but rather, at least in part, a heritage of the Christian tradition (Toren 2014, 10ff.). We do not need to assume any specific answer to the question about which aspects of Christianity play a role in the science and religion discourse in these three university cities, but we do need to be open to the possibility that the aspects of the discourse that demand our attention may be influenced by a variety of factors, including the broad (and potentially fluid) characteristics of the different religious traditions concerned.

4 Project Design

One of the guiding principles in the design of this project was the desire to set up an intercultural dialogue in which the cultural 'others' are not only

conversation partners in the metaphorical sense, but also become active participants in, and co-owners of, this intercultural conversation. The term 'dialogue' is often used in the metaphorical sense to describe the coming together of different ideas or perspectives, usually separated by historical time, for the purpose of comparison. Thus, one can legitimately set up a 'dialogue' on science and religion with Thomas Aquinas, even though he can no longer actually talk back. One can even set up imaginary dialogues between fictional conversation partners as a literary means of exploring how such perspectives might mutually enrich or critique each other (e.g., Kreeft 1982). However, the notion of dialogue gains a richer meaning if conversation partners are active participants in the conversation. This limits the power difference and provides an additional safeguard to ensure that culturally different perspectives are still interpreted in terms of their respective conceptual frameworks. However, such an understanding of dialogue presents particular challenges for this research design. One needs to create a framework for the research in which all the different partners have reasons for being interested in the project. It is even better if the different partners are intrinsically motivated by the project and not (only) for certain extrinsic reasons, such as remuneration. This raises the buy-in of the partners and increases the quality of the data and shared analysis that result from the project. In this research project, this happens through a partnership between the Protestant Theological University (PThU) in Groningen, the Netherlands, and the Groupes Bibliques Universitaires d'Afrique Francophone (GBU-AF).

In this project we collaborated with the three national GBU-AF movements in Ivory Coast, the Democratic Republic of Congo, and Cameroon. These movements were interested in collaborating with us because of their desire to help their members function as Christians within their universities. Traditionally, GBU-AF invested considerably in the pastoral support of their members and in evangelism at high schools and institutions of higher education. However, they are increasingly interested in helping their members engage as Christians in the academic world itself and ask what Christian living and Christian service mean in such a context. The project was therefore designed along two parallel axes: one axis was the research track in which we explored the existing discourse on science and Christian faith. In this track we also asked whether there would be potential to deepen, broaden, or strengthen this discourse in order to help current and future generations of students and academics.

The second track was the formative track in which we helped students and academics think through these questioned engage as Christians with their religious convictions in their respective fields of study. In all three university cities, we planned three research sessions using Group Model Building and

focus groups, as we explain in the next chapter. The second and third research sessions in each city happened within the context of a two-day conference for 20–30 students and academics with a larger public event on the following day, all with an explicit formative intention for the participants. We carefully planned for the research sessions to take place before the conferences so that the more formative aspects of these conferences would interfere as little as possible with the research on the local discourse in the GMB sessions. Unfortunately, political tensions in Kinshasa did not allow us to have the third session in Kinshasa before the analysis of the results. As part of the project we are developing course material on science and religion for student groups within and beyond GBU-AF and creating a website that allows students to explore these questions. Therefore, the project as a whole could be characterised as Participatory Inquiry and Action Research (Reason and Bradbury 2001; Conde-Frazier 2012; Toren and Bom, 2018).

The collaboration with GBU-AF – and in particular the Groupe Biblique des Elèves et Etudiants du Cameroun (GBEEC), where the local research assistant and facilitator was based – provided us with local partners with whom we could host our research sessions and conferences. Furthermore, they provided a dependable partner in a region of the world where social structures, including academic structures, are often fragile, and where the development of relationships, both academic and other, can demand complex processes of negotiation depending on often invisible loyalties and pressures. This is also the case in Europe to a certain degree, but as cultural foreigners, and because of the distance, these relationships are much harder to negotiate in an intercultural project.

Such a complex international project is therefore only possible when one can build on an existing network of relationships. Our personal histories as Project Director and Co-director and Senior Researcher (the two authors of this study) have therefore been a crucial ingredient in this project. Because our personal locations in different networks not only allowed us to do this research, but also colour our perspectives, it is appropriate to give an indication of our own location within these networks.

5 Positionality

Although our team – Lynda Zegha, Benno van den Toren and Klaas Bom – included people from both the North Atlantic world and French-speaking Africa, the project was directed from the Netherlands and the main researcher, Klaas Bom, is Dutch. As such, there is an obvious bias which could easily be

seen in a negative light. The African and female input was clearly limited by the dominant role played by Western men. Klaas also facilitated the research sessions and was therefore the main 'face' of the research for the participants. The way our team functioned confirms the typical colonial hierarchy with Lynda in the role of assistant. The fact that the two Westerners are theologians from a protestant theological institution automatically gives them a certain authority in these groups of mainly protestant participants. It is therefore understandable that the female minority in the student group in Yaoundé was initially shy in its participation during the first research session (see Chapters 4 and 5). The financial support given by Templeton World Charity Foundation makes the North Atlantic supremacy complete. On top of this, the further reflection and writing of this monograph was carried out by two white men.

Nevertheless, there are also a great many positive aspects to the relationships between the research team and the population. Lynda Zegha is Cameroonian by birth, lives in Yaoundé, and holds an MA in International Relations from Yaoundé. She has personal experience of university life in French-speaking Africa. Lynda is also a member of a Pentecostal church and has a Bamileke background (see more on this in Chapters 3 and 4). Lynda was engaged in all the research sessions and assisted the model builder and the facilitator, and coordinated and controlled the transcriptions, etc.. Benno van den Toren, the director of the project, is familiar with both the International Fellowship of Evangelical Students (IFES) and French-speaking Africa. He worked part-time for IFES-the Netherlands during his PhD studies in theology. Amongst national IFES movements, there is a strong sense of belonging to a worldwide family, which helped the development of his relationship with GBU-AF. He taught theology at the Faculté de Théologie Evangélique de Bangui in the Central African Republic, a pan-African school attracting students from all over French-speaking sub-Saharan Africa (1997–2005). During a subsequent period as a tutor of Christian Doctrine at Wycliffe Hall, an Anglican college within the University of Oxford (2005–2013), he became involved in projects on science and faith issues, and most notably was project director of 'Configuring Adam and Eve: Exploring Conceptual Space at the Interface of Theological and Scientific Reflection on Human Origins'. His subsequent appointment as Professor of Intercultural Theology at the Protestant Theological University allowed him to start exploring the relationship between the science and faith discourse and cultural diversity, as evidenced in this project. Klaas Bom is also a theologian from a Dutch Reformed background like Benno van den Toren. He studied theology and philosophy at Utrecht University and in Paris and is specialized in early modernity in France (Pascal, Descartes) and its medieval roots. He is familiar with the academy in France as well as with the history of

French thought on science and religion. As a professor of theology, he lived and worked for nine years in different countries in Latin America, where he studied Latin American Pentecostalism. This experience of the Global South was crucial for this project. These engagements and the experience of the research team facilitated the contact with the local populations and the process of the research but are also possible hindrances to interpreting the results.

In an intercultural project, the cultural location of the different partners can and should be recognized and valued. Yet, these cultural ties also raise a number of questions that we have been wrestling with throughout the project. How can one engage in an academic project with a movement which, in its mission, does not necessarily maintain the type of religious neutrality often expected in Western research projects? How does one engage in genuine academic dialogue with perspectives that may themselves be at odds with the secular presuppositions that dominate much of Western academia? And what does this imply for the position of the team members who are all Christians? These questions also relate to the somewhat problematic position of theology at modern universities in the North Atlantic world. We will attempt to address these questions in our exploration of interculturality and intercultural theology in the next chapter and in the final two chapters. However, the questions we raise do not just point to limitations; sometimes what appears to be a limitation can actually facilitate the research. We already mentioned the importance of the IFES network that gave us a unique entrance to the university experience of Christians in francophone Africa. Additionally, some participants thought that research in this part of Africa conducted from the Netherlands makes sense, because the Netherlands is not a francophone country and there is no commitment to French culture and therefore less influence of *laïcité*.

CHAPTER 2

The Theoretical Framework, Methods, and Layout of the Research

Our research into how the espoused theologies of African Christian students and academics in French-speaking Africa can contribute to the global science and religion debate leads us into little-explored territories of research. Therefore, it also necessitates critical reflection on the question of which methodological approaches are best suited to both the field of study and our research objectives. This chapter discusses the methodological decisions we arrived at as a result of the interplay between our research interests and theoretical framework, and the need to do justice to the unique research contexts and the specific research requirements that we formulated. Ultimately, the research methodology is justified if it enables new and significant insights into the realities that are studied. Examples of even relatively comparable projects were limited, and so our approach was mainly inductive.

In the first section of this chapter, we look at our understanding of 'intercultural theology' as the most essential part of the theoretical framework. We discuss the notion and place of 'culture' that is so central to this relatively new theological enterprise, and we explain what makes this a theological approach. Furthermore, we elaborate on why we expect that our intercultural and theological approach will contribute valuable insights to the science and religion debate that are not limited to particular cultural contexts, and why they are valuable even to those who work with different theological presuppositions than those that underlie this project.

In the second section of this chapter we explain our choice of discourse analysis and the use of Group Model Building as the principal research tool. Due to our expectation that insights from French-speaking Africa would provide valuable new perspectives for the global science and religion debate, and particularly the Western section of that debate, we were automatically invited to study the 'ordinary', 'lived', or 'espoused' theologies of relevant groups. So far, little has been written in the traditional format of academic texts from a francophone African perspective (see the exceptions mentioned in Chapter 1: Makanzu 1986; Bame Bame 1994); yet, there are good reasons to suppose that some of the most relevant insights are to be found in discourses about science and religion among Christian students and academics. However, up until now, these valuable insights have not yet been mined and made available for broader

intercultural debates. We made use of Group Model Building, which is a specific participatory research method often employed by management studies to understand decision making in groups. As we explain below, Group Model Building is particularly apt for enabling this discourse to crystalize in a manner that allows the participants to retain ownership of their discourse without unnecessary outside intervention.

In the third section of this chapter, we describe the concrete layout of the research process which took place in three different locations and was spread across a number of research visits. We also explain the choices made about gathering and analysing the data, share some of the challenges encountered in the process, and discuss the lessons learned for future intercultural theology research projects on science and religion and beyond.

1 An Intercultural Theological Approach to Science and Religion

As indicated in Chapter 1, there is a growing awareness that the way in which different communities and thinkers approach questions about science and religion is deeply influenced by their cultural (and therefore also geographical) locations. This project not only originated from this observation but has also tested and confirmed the thesis that culture is a crucial factor in this debate. It has shown that a particular cultural location may allow for new insights into the understandings of science and religion. Furthermore, these insights also lay bare cultural blind spots caused by the fact that every cultural standpoint (including Western culture) invites or even forces people to look at these questions from specific angles, in a particular light, and given unspoken assumptions that remain hidden in the background.

Therefore, the cultural factor in the science and religion debate invites us to an intercultural dialogue. In our understanding there are a number of vital components to successful dialogue. First, one must make the effort to understand alternative perspectives not in terms of one's own cultural and conceptual framework, but according to their proper structure and integrity.

Intercultural theology thus has a strong hermeneutical component (cf. Wrogemann 2016; Schreiter 1997, 28ff.). Furthermore, dialogue requires that one does not treat others as mere objects of study. We cannot limit ourselves to simply describing alternative positions that represent interesting cultural phenomena, but rather we must accept that these positions and people may become conversation partners. They can only become conversation partners (rather than people to be studied, educated, or tolerated) if we presuppose

that they may offer genuine insights into the same realities we are studying, which we may have thus far missed because of our cultural standpoint.

In our own experience, such genuine intercultural dialogue is very challenging to achieve as it requires significant hermeneutical skills and patience to understand cultural perspectives that are profoundly different from one's own. A complicating factor is that in a number of areas of life a sense of cultural superiority is so deeply ingrained that we are hardly aware of it. One does not need to opt for complete cultural relativism to ask critical questions here. Rather, we need to realise that while culture can allow for true insights, cultural short-sightedness or even blindness is by definition very hard to spot in oneself. Modern scientific approaches to reality have been very successful in the West. The modern scientific worldview has gained such a powerful cultural dominance in the North Atlantic world that it has become the cultural reality against which the value of many other aspects of our own culture are measured. As researchers with many years of service in Central Africa and Latin America, we probably have a greater sense of the relativity of North Atlantic cultural and social perspectives than some others, and yet it was all too easy to approach our conversation partners with attitudes that could confirm or strengthen a sense of superiority in regard to science. We were deeply impressed by a number of our conversation partners, but visiting Abidjan, Yaoundé, and Kinshasa – three leading university cities in French-speaking Africa – there were moments when we were shocked by the weakness of the academic infrastructure, and by the regular lack of what we might call 'genuine academic interest' or 'science for the sake of science'. Stories about magical events that we would often label as 'superstitious' in the West were shared on a regular basis with little of the critical distance that we as Westerners would expect. At times it took conscious effort to realise that these cultural and social realities might be an opportunity for us to have insights that we cannot come by so easily precisely because of the limitations of the dominant scientific approach in our own context.

It is clear that genuine intercultural engagement with questions of science and religion (and with all truly significant questions that address broader and deeper life issues) not only demands proper research tools, but also the continuing development of the researchers in terms of their attitude and outlook. Knowledge is always deeply personal (cf. Polanyi 1962; Jaeger 1999, 26–43) and "[t]he self is not some kind of virus which contaminates the research. On the contrary, the self is a research tool, and is thus intimately connected to the methods we deploy" (Cousin 2010, 10). Apart from the importance of the attitude, experiences, and outlook of the researcher, we also need to critically

examine a number of concepts that are central to this project, and ask whether and how they can be a help rather than a hindrance to intercultural dialogue and exploration. In the following subsections we focus on the two terms that are crucial in an intercultural theological approach: culture and theology. We also introduce the notion of triangulation, a key building block for understanding the relationship between the two.

1.1 *The Value and Limitations of the Notion of Culture*

In this study we explore the way in which the science and religion debate is influenced by the cultural context in which it plays out. In order to do so well, we need an understanding of culture that is appropriate to address this question. This concept of culture will need to be distinguished from the 'integrated' understanding of culture that was developed in the 1920s in cultural anthropology – or, more precisely, that accompanied and made possible the development of cultural anthropology as an academic discipline – and that remained very influential even when it came under growing criticism in the 1970s and afterwards. In this integrated understanding, a culture is conceived as an integral whole that covers all aspects of life and that has a strong coherence around some integrative principle. A culture is associated with a social consensus that is shared by specific social groups (often, but not necessarily, ethnic groups) that can be distinguished from other groups with relative ease. Culture therefore stresses human diversity, and allows one to see radically different and potentially incommensurable ways of life as fundamentally having equal value – this is in sharp contrast to the cultural evolutionism that characterised the earlier period (Tanner 1997, 25ff.; Schreiter 1997, 47ff.; Kim 2016).

However, the integrated concept of culture does not do justice to the fact that cultures are not homogeneous and harmonious wholes, but normally present inner tensions; they are not sealed off from other cultures, but are rather in constant interaction with other cultural influences; they are not static but are a space for continuing negotiation and development. This more 'postmodern' notion of culture with its stress on "interactive process and negotiation, indeterminacy, fragmentation, conflict and porosity" (Tanner 1997, 38) reveals the complex nature of traditional societies, but is even more necessary and apt for our globalising world characterised by cultural interaction and cultural flows. This notion of culture is particularly helpful for studying and analysing discourse on science and religion in our research population. The cultural interactions in these contexts reveal tensions and negotiations both within cultural streams and between cultural streams (that include modern Western, traditional African, and also Christian influences). Intercultural exchange and dialogue dos not take place between neatly separated cultural compartments,

but are an important part of contemporary life, which is characterised by cultural hybridisations (cf. Schreiter 1997, 74–78).

In reflecting on the value of the concept of culture, we also need to understand its limitations. To paraphrase a Dutch theologian's reflection on politics (Kuitert 1986), we can say that "everything is culture, but culture is not everything." In focussing on intercultural interactions, there is a risk of making 'culture' an all-encompassing category in terms of which all aspects of the interaction are explained.[1] One cause of this tendency is that the concept is introduced by cultural anthropology, which, as a matter of disciplinary integrity, makes it the dominant category through which analysis and interpretation take place. Nevertheless, the need to recognise the potential limits of the explanatory power of 'culture' is a given with intercultural dialogue. If one wants to take other cultural insights seriously, one also needs to realise that others may use different categories for what anthropologists refer to as 'culture' or may use the notion of culture or related terms in a different way. The all-encompassing use of 'culture' as a category for analysis and explanation is, of course, a specifically Western academic practice, although not one that is universally shared even in the West. As we explain below, this understanding does not fit our realist approach. Additionally, in intercultural encounters such a use of culture risks imposing a foreign category. When some practice or belief is explained as 'cultural' while from another cultural perspective, in that particular culture the practice or belief may not be seen as 'merely' cultural, but rather as a form of 'religion', 'morality', or 'science' (or their approximate cultural or linguistic equivalents). This is not to say that such beliefs or practices are not also part of culture (they are), but it means that they are not 'merely' or only cultural for the community itself. Therefore, study and dialogue only become genuinely intercultural if one takes these other perspectives into account.

How do we then understand culture in this book and in our perception of intercultural theology? As we will see in Chapters 4 and 5, the participants mainly use 'culture' in its modern, anthropological, or what Schreiter calls 'integrated' understanding. Sometimes this understanding is even restricted to ethnicity. Expressions such as 'African culture' and 'Western culture' are to be understood as characterizing societies and sometimes peoples. In the reconstruction of the discourses we stick to this use of 'culture'. However, our own understanding of culture is more open than the classic anthropological perceptions. In Chapter 6 we develop an understanding of intercultural theology that is based on anthropologist Joel Robbins' (2017) approach to culture and

1 See for an interesting parallel debate from the intercultural study of mental illness: Oloyede 2002b; Ventevogel 2002; Oloyede 2002a.

the central role of transformation when it comes to Christian cultural engagement. Robbins keeps a modern understanding of culture as his point of departure but argues that Christian faith leads to transformation of culture. This perspective also offers a better understanding of the participants' beliefs, especially those of the students from Yaoundé who are searching for a proper African Christian understanding of science (Chapter 5). Under the conditions mentioned above, which exclude an all-encompassing and closed or integrated understanding, we accept a classic anthropological definition of culture, like that of Tylor:

> Culture, or civilization, taken in its wide, ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.
>
> TYLOR 1958, 1

1.2 *The Need for a Theological Approach*

In this section we explain why we opt for a theological study of the discourse on science and religion in Christian communities in French-speaking Africa, and then explain their contribution to the wider science and religion debate. Of course, the data and interpretations presented in this study offer a wealth of material on cultural interactions and negotiations in contemporary sub-Saharan Africa that is also unique from a social science perspective. However, we are interested in cultural understandings of science and religion, more specifically science and the Christian faith, not only to better understand how people in different communities engage with these two domains, but also because we are interested in the question of science and religion itself and how the scientific and religious perspectives relate. What is the value and interrelation of both ways of knowing, of both ways of relating to the world? This is a theological question, because it concerns questions about whether and how the God Christians believe in is related to the world that is the object of scientific research.

We would claim that every position one takes in this respect is inherently theological, even if one opts for a radical Wittgensteinian approach to science and religion which sees both discourses as having integrity and value in themselves, but as unrelated to each other and unrelated to an 'extralinguistic reality' (Barbour 2000, 19–22). This approach presupposes theological convictions concerning the unknowability of God and the incapability of language to adequately describe God. If these theological convictions cannot be affirmed (and if a parallel conviction about the nature of scientific language and its reference

were not necessarily true), then one would need to consider the possibility that at least some theological language about God's relationship to the world can interact with scientific language. We will return to the question of the nature of theological language in its relation to reality in the following section on 'critical triangulation'.

At this point, it is important to clarify what we mean by 'theology' in this study, and especially the notion of 'espoused theology', which we use to refer to the discourse of the groups of students and academics. In this study we use 'theology in four voices', which is a description of theology borrowed from Helen Cameron et al. (2010). They distinguish between (a) 'normative theology', as the normative theological texts of a religious community, (b) 'formal theology', as the theological reflection and production in academic settings, (c) 'espoused theology', as the theological understanding of the members of the community, and (d) 'operant theology', as the theology that is implicit in the practices of the community (Cameron et al. 2010, 53–56). We focus on espoused theology because of our belief that African Christian communities might have very valuable insights to offer to an intercultural debate on science and religion, despite the fact that few of these insights have been formulated in 'formal theology' such as in academic theological texts. We opted for the study of the 'espoused' theology rather than the 'operant theology' of these groups because we thought that many of the relevant insights would be conscious within the community or could be adequately formulated by the community if given an appropriate setting such as Group Model Building or focus group sessions. In the course of the research, these beliefs have been justified.

It was less clear to us whether the 'operant theology', present in the day to day life of the community, could be adequately researched within the means available for this project. Furthermore, if we had opted for the study of 'operant theology', our respect for the agency of the community itself in the intended intercultural theological exploration would have meant that the community itself needed to be the primary interpreters of their operant theology. This interpretation would still need to happen in focus groups, which would be very similar to the group work in the current project. Studying the operant theology would, therefore, necessitate an extra step in the research with potentially relatively few additional insights gained. Such a study on 'operant theologies' of science and religion could potentially first be done in a Western setting where most empirical studies of these issues have taken place (cf. Howard Ecklund 2010; Guest et al. 2013).

Our study is an exercise in 'formal theology' and engages in academic theological reflection while using insights harvested from 'espoused theology'. This enterprise therefore presupposes a close relationship between formal and

espoused theology. Theology is not seen as a top-down enterprise based on forms of reasoning (be they exegetical, philosophical, or doctrinal) that have little to do with the life of the Christian community and that might meet the community somewhere in the process of downward dissemination.

Academic theology as *fides quaerens intellectum* is a specialised activity within the community of faith that critically accompanies this community, and as such is at the service of both the community of faith and the wider society. This does not presuppose that the lived faith of the congregation (in religious experience, a life of discipleship or liberating action) is the primary locus of divine revelation, but we do recognize its revelatory function. The community of believers is called to faithfulness to God while discerning the guidance of the Spirit in relation to the cultural, social, and missional challenges it faces in its particular context. The high estimate we give to the espoused theology of the community also reflects the conviction that theologians are neither the first, nor necessarily the best-placed, persons to respond to God's self-revelation. They do their academic work realising that this Trinitarian revelation demands a response by a community that lives out this faith, and to which it therefore needs to remain connected. Furthermore, the priority of this lived theology does not presuppose that the insights presented in the formal theology are only addressed to and valuable for the Christian community. While we are conscious of the fact that these insights are acquired within a specific tradition of reflection, they are still presented as 'public theology' with 'universal intent' (Polanyi 1962, 150, *passim*; Newbigin 1991).

This primacy of ordinary knowledge is not unique to theology but is characteristic of many and potentially all academic disciplines that present formalised enterprises representing ordinary human ways of knowing. In that sense, it reflects a naturalist epistemology, which considers epistemological reflection as taking off from a critical reflection on natural forms of knowing. However, such an epistemology does not mean that one opts for a naturalist metaphysics, and can well be combined with a 'supernaturalism' in metaphysics (Plantinga 1993, 194). This approach to academic knowledge is also appropriate in our research context. A number of students and academics pointed to both rudimentary and more developed forms of scientific knowledge in precolonial Africa as parallels to the Western scientific enterprise (cf. Feierman and Janzen 2011, 229ff.).[2] If academic knowledge is indeed a systematic and

2 See Chapter 4, more specifically the contribution of Ayuk in the second part on the academics' discourse.

formalised approach to natural ways of knowing, such parallels are not only apparent, but may be truly significant.[3]

1.3 *Critical Triangulation*

The last two sections may seem to point in different and potentially incompatible directions. The section on culture emphasises the cultural bedding of all thinking on science and religion and could easily suggest a social or cultural constructivist understanding of the science and religion discourse in these three university cities. On the other hand, the section on theology reveals the desire to use these insights in a theological debate on the nature of the relationship between science and religion (or more specifically the Christian faith). It argues that this debate is necessarily theological and implies a critical realist approach to reflection on how God relates to realities like science, Christian faith, and African traditions.

The 'critical' in critical realism is used as a qualifier to show that we do not presuppose a strict parallel between our language and reality. We simply presuppose that language describes a reality that exists before, and is independent of, the language used to describe it. Nevertheless, we recognise that language continually needs to be critically assessed with regards to the question of whether it adequately describes reality, how it does so, and how it can be adapted in order to allow for a better correspondence to this reality (McGrath 1999, 154–164).

Such a critical realist understanding is shared by a most (natural) scientists (Polkinghorne 1989, 162; Polkinghorne 1991, 5; McGrath 1999, 143, 154). As Michael Devitt writes, "If scientific realism, and the theories it draws on, were not correct, there would be no explanation as to why the observed world functions as if they were correct; that fact would be brute, if not miraculous" (Devitt 1984, 1; cf. Toren 2011, 122–127). Scientists encounter a robust reality which may not always fit their culturally embedded preconceived understandings of the nature of reality. As John Polkinghorne puts it, "Experimentialists do find it difficult to see what they are not expecting. […] Yet one must also acknowledge that the stubborn facticity of nature imposes ineluctable constraint, whatever one might have anticipated would be the case" (Polkinghorne 1989, 169ff., 173). This is precisely why – though culture may be a critical factor in every human endeavour, including the scientific enterprise – culture cannot be the only explanation of the findings.

3 For a more recent example of how 'people's science' can provide scientifically valid insights, see a recent study by the anthropologist Paul Richards on the responses of West-African communities to the Ebola crisis (Richards 2016).

We therefore combine the study of the cultural aspects of the science and religion debate with a critical realist understanding of the nature of science. Of course, this project does not focus on the primary data and theories of science. These are not beyond dispute, but critical debates focus much more on questions of the limits of science, of the extrapolations from scientific findings to questions of worldview, of what science might potentially miss, and on the relationship between scientific and religious insights into the nature of reality and life.

There are, of course, alternative understandings of science, particularly when science is studied from a social science perspective, as with the radical interpretation of Thomas Kuhn's classic work (Kuhn 1996). Nevertheless, the realist approach has wide traction in the current climate as far as (natural) scientific knowledge is concerned. Though the precise nature of the theological language does not generally become explicit in the discourses studied, a critical realist understanding is well placed to engage in an intercultural dialogue with the espoused theology expressed in these discourses. The academics and students involved would generally have beliefs about topics such as creation and how God acts today in miraculous healings. An intercultural theological approach that presupposes a critical realist understanding of theological language is therefore well placed to engage in a dialogue with these academics and students.[4] Such a perspective allows for an approach that is more truly dialogical than approaches that would limit the analysis of the material to cultural and social perspectives. Any such approaches would thus end up presenting analyses and interpretations that would miss (theological) aspects of the conversation, which for the conversation partners are crucial and possibly the most significant issues at stake.

The exchange between different cultural perspectives envisaged in intercultural theology, and in this study, helps to mediate between these different understandings of reality, including different understandings of how reality can be known. In this respect, the notion of 'triangulation' is useful. This notion is used in epistemology by the philosopher Donald Davidson, with precisely the aim of overcoming the limitations of the particular location of the knowing subject. When discussing opposing views, two people point to the same reality, thus creating a triangle between the two observers and the third angle of the

4 Certain understandings of religious and theological language, such as the one developed by George Lindbeck (Lindbeck 1984) would, however, argue that there exists a crucial difference between first order language of faith and second or third order theological language. We would argue that the critical nature of theological language with regards to faith language implies a critical reflection on the degree in which it succeeds in its implicit references to reality.

object to which they point. It is this triangle that allows one to critically consider one's own perception of the world and confirm the inter-subjectively perceived reality (e.g., Davidson 1991). Kevin Vanhoozer has extrapolated this notion to intercultural theological conversations, which allows one to critically test, confirm, and expand the theological understanding of one culturally located Christian community against another (Vanhoozer 2006). Thus, intercultural theology becomes a 'three-way conversation' in which the triangle formed between different participants, who discuss their understanding of God in his relation to the world, allows for a critical realist exchange (Toren 2015 c). This project engages in a dialogue between North Atlantic and sub-Saharan African understandings of the relationship between science and religion, thus allowing for a critical engagement with the complex reality that these different culturally located perspectives on science and religion seek to understand.

The notion of triangulation is also used in the social sciences: it refers to the methodological possibility of confirming certain findings, or gaining a fuller understanding of them, by studying the same social reality from different angles (with the same methods, different methods, different sources of information, or different researchers) (Denscombe 2014, 346–351). This kind of methodological triangulation also happens in this project through the use of different methods (surveys, Group Model Building, and focus groups) to study the espoused theology on science and religion in French-speaking Africa This methodological triangulation helps us to gain a better understanding of the discourse of African students and academics, one of the angles of the larger theoretical triangle described above representing the intercultural theological conversation.

One does not need to accept a critical realist understanding of theological language and reflection beforehand in order to engage in such an intercultural conversation. The question of what counts as adequate knowledge, and what this would mean for different types of discourse, can itself be the object of intercultural exchange, and must be if it concerns scientific and religious knowledge. True intercultural exchange means giving alternative understandings of the nature of scientific knowledge, of religious knowledge, and of the knowledge transmitted by other traditions, a fair hearing. Otherwise, the possibility of gaining new insights from an intercultural engagement on issues of science and religion grows thin.

Intercultural theological dialogue thus engages us in a double hermeneutical process: we engage in the process of understanding others with their symbolic systems that have their own coherence, tensions, and dynamics (Wrogemann 2016, xx). However, these symbolic systems , are not free-floating self-referential constructs. They are themselves responses to an extra-linguistic

reality which shines through in these images, but which may also be deformed or even replaced by phantom worlds. The dialogue itself presupposes this triangle; it presupposes that we are speaking to a certain degree about the same realities, and it is this presupposition that helps us detect where our mutual understanding is hindered by our cultural embeddedness, and which helps us strive for a deeper understanding. In the process, we are therefore not only involved in a hermeneutic of alternative cultural understandings, but are also reading reality itself, precisely by comparing our own reading of reality with alternative readings (Toren 2011, 136–138). This process will also lead to a different understanding of ourselves and thus to a transformed engagement with the other and with reality. It is therefore clear that intercultural hermeneutics do have their place in hermeneutics of reality – and *vice versa*.

Finally, our understanding of intercultural theology in this study differs from an older approach that is mainly German in origin and is represented by Werner Ustorf, who understands himself to be in the line of Hans Jochen Margull, Walter Hollenweger, and Richard Friedli (Ustorf 2008). This approach fully recognizes the decisive role of the discovery of Christianity as a worldwide movement for the shape of theology in the current era. However, in contrast to our understanding of intercultural theology , this approach has propounded the view that "[n]on-Western forms of Christianity would develop their individual theological identities in response to the pressing issues of their social, political, religious and cultural contexts and are part of the general 'surge of the 'Third World' in world politics" (235). In Chapter 6, we will argue more extensively that this understanding tends to ignore the importance of the catholic character of the Christian faith. For that reason, we underline the crucial importance of a genuine dialogue with other Christian perspectives (cf. Toren 2015 c, 130ff.) rather than the "post-Christian iconoclasm" of the West (Ustorf 2008, 242).

2 Methodology: On Discourse Analysis and Group Model Building

2.1 *Discourse Analysis*

We use discourse analysis, which is loosely defined by Stephanie Taylor as a "close study of language in use" (2001, 5), in order to investigate the oral contribution from French-speaking Africa. Although discourse analysis cannot be reduced to one single perspective or method, Louise Philips and Marianne Jørgensen argue that the variety of theories and instruments used in discourse analysis share some key characteristics. For example, these authors mention the assumption that "language is structured in patterns or discourses – there

is not just one general system of meaning (…) but a series of systems or discourses, whereby meanings change from discourse to discourse" and "the maintenance and transformation of the patterns should therefore be explored through analysis of the specific contexts in which language is in action" (2002, 12). One of the main questions is whether the dominant discourse is perceived to be (absolutely) hegemonic or not. In a more classical understanding of discourse analysis there is no room left for alternatives to the dominant discourse. However, Bacchi points to theorists who leave "room for subjects to move within the constraints imposed by hegemonic discourses" (2005, 201). Norman Fairclough's Critical Discourse Analysis (CDA) follows suit on this point (Fairclough 2001). In this perspective, discourse is considered to be both "constitutive and constituted" (Philips and Jørgensen 2002, 66). Our research presupposes an understanding of discourse in line with Fairclough and Bacchi. Hence, we assume that the discourse of the research population may not be identical to the dominant (political) discourses in the cultural context of French-speaking Africa (which was shown to be the case). Therefore, subjects having 'room to move' is a crucial element of our understanding. This 'room to move' includes a 'use' of various discourses, which appears to be the case as the different groups produce different discourses. It is in this context that Bacchi's search for agency is relevant for our positioning. This also suits the theological focus of our study as we explained above.

Given our theological framework, we are also critical about the exclusive concentration on human power as the determining factor of social reality. Mechteld Jansen's (2011) intercultural pastoral theology helps us to highlight the way we understand our use of discourse. In her study of the exchange of life stories by people from different cultures she explicitly mentions the presence of God in the narratives. She does not claim that the narrative approach she uses reveals God. However, the author situates the 'images of revelation' in the space between the participants, and in the dynamics that take place when the experiences are shared (Jansen 2011, 118–122). Jansen relates this revelation more specifically to the Holy Spirit. This is in line with what we argued above when we pointed to the guidance of the Holy Spirit as sustaining the importance of espoused theology. We do not understand human agency as separate from this divine revelation, but rather as included, albeit without identifying human action with the divine.

Bacchi argues that the agency is to be located within the discourse, because discourse analysis does not perceive the subject outside the discourse (2005, 206). Here we come to a second critical interaction between discourse theories and our theological principles. What does it mean if the agency is limited to the discourse? Philips and Jørgensen (2002, 21–22) argue that this does not

necessarily imply a constructivist understanding. These authors emphasise, however, that discourse analysis implies that there is no 'reality' behind the discourse. They perceive discourse and reality as being inseparable. Above, we underlined the importance of the assumption of reality as a 'third' aspect important for our understanding of intercultural theological. As discourses are culturally situated, the intercultural debate helps us to understand the relation between discourse and reality as being less tight than in Philips and Jørgensen's view. Our point is not to claim direct knowledge of reality, in this case God, but to underline that the assumed reality should not disappear, either in a constructivist negation or in a perspective in which discourse and reality cannot be distinguished. In our understanding, reality is a constitutive point of reference for the different dialogue partners.

2.2 *Working with Group Model Building*

In this study we research the way Christian MA students and academics from francophone Africa understand the relation between science and faith. Their debates on these topics are extremely important for the reconstruction of their arguments and positions. These debates are therefore the discourses we research. The literature on discourse analysis pays special attention to the role of patterns or conceptual schemas in the use of language. Expressions, word repetitions, similar relations between concepts, etc., are indications of a possible shared perspective. In our case we research oral material in order to discover the particularities and the convergences both within the discourses of every research group and between the different groups. We use the expression 'reconstruction of the discourse' in order to indicate that this is a group process in which the participants make decisions on a joint perspective without denying the diversity of opinions. Due to the crucial importance of the group process in the research we prefer to use a research instrument for groups. The group character of the research is especially helpful in African contexts, where theology is often developed in communal conversation (Munikwa and Hendriks 2011). The researchers involved had limited roles in the groups. Lynda and Klaas facilitated the Group Model Building sessions and Klaas facilitated the focus group sessions. However, the facilitating role, also makes one an outsider and a witness and sometimes Klaas felt invited to judge or to mediate. In some groups, the participants expressed their frustration about Klaas's 'impartial' or 'just facilitating' role, and this was especially true after the second research session which preceded the conference that was part of the formation track.

Additionally, because of our intercultural theological focus, we use a participatory research tool. Surveys or interviews are therefore less useful because these instruments are directed towards the individual and do not sufficiently

safeguard the African origin and ownership of the reconstruction. We therefore prefer a participatory research instrument in which the power of the researcher is relatively small, and in which the group process is fully considered (De Roest 2015, 247–250). The cluster of methods we refer to with the term 'participatory research methods' is often related to Action Research and shows a certain family resemblance to the related method of Appreciative Inquiry. These methods are of particular value to intercultural theology because they help to address a number of issues related to the intercultural theological approach we mentioned in the first section of this chapter. In the first place, participatory research methods make Christian communities in other parts of the world conversation partners, rather than objects of research. In a similar fashion, these methods help to engage in a conversation between more academic theology and espoused and lived theology (cf. Toren 2015c, Toren and Bom 2018, Bom 2018). Finally, this method takes seriously the reality that many academic and educational institutions in the Global South have limited resources and interest in investing research in projects that have no direct practical relevance.

Group Model Building (GMB) is qualified as a participatory research instrument because it facilitates discourse analysis in a group while respecting the dynamics of the negotiation within the group and without the researchers steering the process (Luna-Reyes et al. 2006). GMB stems from the large family of System Dynamics-related research tools in the natural and social sciences. Bleijenbergh, Korzilius and Verschuren classify GMB as one of the participatory methods of practice orientated research (2011, 148–149). They distinguish between practice based and expert based participatory research. However, in our research we are not primarily interested in how experts perceive the situation of the debate in the three cities, but rather want to reconstruct and study the discourse of people with the experience of being Christian and studying or working at a university in these concrete situations. This does not completely exclude expert perception because all participants are, in a way, experts in their own academic disciplines and bring in a specific expertise of their discipline to the discussion of the relationship between science and faith. However, the dominant practical approach here implies engagement with what these authors call 'practice orientated research'. It is therefore directly related to a practical problem which is defined by these authors as "a problem that calls for an intervention or a new artefact in order to change reality in a desired direction" (Bleijenbergh, Korzilius and Verschuren 2011, 148). When GMB is used as a tool for discourse analysis, the reconstruction of the discourse can be perceived as such an artefact. According to these authors, this calls for decision making or strategic management (2011, 148).

How does GMB work? Rouwette, Bleijenbergh, and Vennix describe the process as follows:

> GMB involves a number of experts and other stakeholders in a series of face-to-face sessions. A facilitator and modeler help the participants to describe their situation in the form of a qualitative or quantitative system dynamics model.... The process via which GMB brings about these outcomes boils down to the elicitation of stakeholder's ideas and goals, confronting them with each other and with available data and combining them in an overall model.
>
> Decision making support methods aim to increase open communication on messy problems in order to reach consensus on the problem at stake and coordination of the efforts of different stakeholders.
>
> ROUWETTE, BLEIJENBERGH AND VENNIX, 2016, 64–65.

The expression 'messy problems' is often used in the GMB literature, especially by Vennix and the research group of Nijmegen Management Studies. Vennix perceives problems as messy when "people hold entirely different views on (a) whether there is a problem, and, if they agree there is a problem, (b) what the problem is" (Vennix 1996, 13, 49–51). Our research confirms that the relationship between science and Christian faith can be called a messy problem in this sense. Our data, the reconstructed discourses of six groups – one student group and one academic group in each of the three cities – leads us to conclude that the groups access science and Christian faith quite differently. For example, the groups have different understandings of the importance of cultural influences, and even within a group, there are differences on this topic, as is evidenced by the presentation of the debates in Chapters 4 and 5.

As we argued in Chapter 1, the dominant understanding of science and religion is defined by the North Atlantic world, and, if we want to understand what Christians in francophone Africa think about it, it is important to understand how this theme is modelled in African concepts and understandings. GMB proved to be a useful research instrument for several reasons (Bom and Toren 2017; Bom 2018). In the first place, GMB starts with the language and concepts used by the population itself in relation to the problem, which reduces the Western influence on the agenda. We therefore facilitated the negotiation of the problem and the choice of the basic concepts with the help of an online survey, just ten days before the GMB sessions took place. The questionnaire can be found in the annexes of this book. A second advantage of GMB is that it promotes system thinking and searches for related variables, which really helps to make sense of the logic of the groups' discourses, and,

more specifically, the identification of causal relations in the discourse. This also encourages a so-called holistic approach and prevents the population from concentrating on a limited number of aspects related to the issue at stake (Bleijenbergh, Korzilius and Verschuren 2011, 150). This points to a third advantage of GMB: the production of a causal loop diagram that forms the crucial stage of GMB (in this book we will simply refer to it as 'the model'). This model maps the causal relations between the important concepts and processes of the 'messy problem' as perceived by the participants. The function of the model and the way it is constructed was explained to the participants during the first session. The structuring effect of causal logic used in GMB is an instrument that enables the participants to contribute to the analysis of their own discourse. This diagram therefore gives deeper insight into the logic of the participants concerning the problem (Vennix 1996, 51–67). Apart from the concept models (discussed below), we present seven models in this book: one for each student and academic group from each of the three cities, as well as an extra model produced by the students from Kinshasa.

The second and third advantages of GMB mean that it is especially fruitful for the kind of systematic approach normally used in Western theology to study the relationship between science and faith. GMB produces a model that reflects some of the group's basic lines of thought. However, this does not imply that the model produced by GMB can be considered the systematic summary of the reconstructed discourse, or the outline of the major arguments. As the analyses in Chapters 4 and 5 show, the models are nevertheless very helpful for understanding the logic and cohesion of the studied discourses. Because the model built in a GMB session is the product of the whole group, it creates a system of relations between the major variables that is discussed and negotiated and is therefore intersubjective. This implies that the model produced is not the best possible systematic solution, but rather is the consensus of a group; in this case a group of African Christians involved in science. This reflects the process by which a great variety of (ecumenical) synods that have made decisions about theological questions over the past two millennia. These results are not systematic theology itself but do offer the basic material needed for systematic reflection.

Apart from GMB, we also make use of one round of focus groups which enables the interpretation of the data to be tested in the local groups, and a further round of focus groups which permits the local groups to express their proper understanding of the best ways forward. This implies that the data as summarized in the model are brought back to the groups to offer the opportunity of revision or confirmation. The student group from Kinshasa was the only one that proposed a revision of the model (see Chapters 4 and 5). The other

groups wholeheartedly confirmed the model as a summary of their discourse. The research therefore remains one step removed from the action itself. In terms of the four voices of theology (Cameron et al. 2010), it focuses on the 'espoused theology' of the local groups but does not analyse the 'operant theology' implicit in their practices. Our focus on the participatory element rather than the action element is motivated by our interest in intercultural dialogue: the approaches to, and understandings of, the relationship between science and religion (which we discover through a survey, GMB, and focus groups) can more easily be brought into dialogue with Western perspectives. In contrast, proposals focused on action might be even more particular to the specific social contexts and therefore harder to relate to the Western context (Toren and Bom, 2018).

However, there are also some further questions about the use of GMB in our particular project. A causal loop diagram or model is a simplification of a comprehensive and complex debate on science and Christian faith. The relationships between the main concepts and processes are not limited to causality either. Exogenous factors, such as the diversity of the social, ethnic, and denominational backgrounds of the participants, the actual political and religious situations, and even the group's dynamics all play a role as well (as we elaborate on in Chapters 4–6), but are not visible in the model itself. A model must therefore be interpreted with constant reference to the discourses and cannot be isolated from what is said during the session and by whom; as we show in Chapters 4 and 5. The model is best understood as an entrance to the debate and helps us discover some basic systematic structures of the discourse. In this research, GMB mainly helps us to describe the discourse of the students.

3 Layout of the Research

We developed the specific use of GMB and the design of the research track in continuous dialogue with the experts from Nijmegen Management School.[5] One of them, Dr. Hendrik Stouten, went with us on one of the roundtrips to the three African cities to coach the facilitator, and to assist in the process as a model builder. In this section we present the research track and discuss the specific adaptations we had to make because of the local situations.

5 See http://www.ru.nl/nsm/. Last visited on 15 of October 2018.

In order to reconstruct, analyse, and evaluate the discourses of Christian MA students and academics on science and Christian faith from Abidjan, Kinshasa, and Yaoundé we decided to divide the field research into four stages. In first stage we conducted the online survey. The second stage was the GMB session. During the third stage the model that had been built was analysed in a focus group session. The last stage was a final evaluation in a second focus group session.

We will elaborate the description of each stage below.

3.1 *Scope and Selection of Research Population*

We limit this research to Christians within the *academic* communities of the three cities. From the perspective of espoused theology, it is somewhat strange to limit the population to people with an advanced academic formation. Nevertheless, we think it is important that participants have proper experience with science and scientific research. This last criterion led to the focus on MA students, because, at many African universities, BA students are not involved in research. In a way, the participants are experts; not so much in the debate on science and religion, but by their involvement in scientific activities. We also focussed on the practices of science, and not primarily on the theories of science and religion. However, we presumed that these persons would have a clear engagement with a particular way of acquiring (new) knowledge in science. This turned out to be a wrong presumption of these students (and probably also of MA students more generally). In Kinshasha and Yaoundé they argued that studying at MA level is also good for your career, and helps your family to make a social statement. Our limited scope excludes the churches' perceptions of science, as well as the broader appreciation of science in society. The narrow scope of the research is justified by the intercultural theological dialogue we want to initiate. From our perspective, the understanding of science and religion by scientists (students and academics) themselves also includes more specific inside knowledge about science, as is the case with the dialogue partner, the formal theology on science and religion from the North Atlantic world. Finally, we turn to the three cities. The selection of three cities helps to understand at least something of the diversity present in francophone Africa. Although the specific group we select is just a small part of society, the cultural, historical, and political differences between the three cities selected is impressive (as we elaborate on in Chapter 3). Although this makes it possible to test a hypothesis on the impact of French *laïcité*, for example, it also results in disadvantages, such as very different local cultures. The cooperation with GBU-AF also restricted the population of the research, which we argue is dominated by evangelical Protestant voices.

The selection of the participants was made in cooperation with Group Bibliques Universitaires (GBU), a Christian student movement that exists in most French-speaking countries and is related to the International Fellowship of Evangelical Students;[6] we will come back to this organisation in the next chapter. This involved the internal power structure of the different national organisations of GBU in the selection process. To diminish the impact of the organisational power structure, we indicated strict selection criteria for the participants including: diverse denominational background and gender, diverse academic specialisation, and diverse ethnic belonging. In the annexes the lists of the participants can be found, including information regarding gender, academic specialisation, and denominational background.[7] This diversity is not meant to be representative of the local situation but to create a diverse research population that contributes to a rich discourse. We also explicitly asked them to include students from other student movements, which they did. The local organisation proposed participants based on these criteria.

In most cases this resulted in a dominant participation by what we call 'evangelical Protestants'. These participants are members of traditional Lutheran, Presbyterian, Baptist, and Evangelical churches, etc. In most groups there are only a few Roman Catholics and Pentecostals. The student group in Kinshasa even lacked a Roman Catholic representative but did have a strong representation of Pentecostals. In the Kinshasa groups the diversity among the Pentecostals came to the fore. Two active participants in the student group, Gloire and Cardin, come from different Pentecostal backgrounds. Gloire is affiliated with a traditional Pentecostal denomination, the Assemblies of God, while Cardin identifies himself as a member of a so-called 'église de reveil'.[8] The three categories we use to index denominational affiliation are therefore quite rough, and, to a certain extent, hide the variety of denominational backgrounds actually present. As we have already mentioned, our categorisation functions as an instrument to verify the diversity of the research population rather than to guarantee a representative sample. Additionally, the number of participants does not necessarily correspond with the effect of their influence on the discourse. The Roman Catholic contribution was crucial in the GMB session with the academics from Kinshasa, and Martha, a Pentecostal, was a

6 See https://ifesworld.org/en last visited on 15 October 2018.

7 Ethnic background was especially difficult to discover in Kinshasa (see Chapter 4). Therefore, we do not refer to ethnic background in the list of the participants (in the annexes), but ensured that in every group there was at least a variety of ethnic background among the participants, as becomes clear in Chapters 4 and 5.

8 For more on neo Pentecostalism in Africa, see for example Ogbu Kalu *African Pentecostalism: An Introduction* (Oxford: Oxford University Press, 2008).

leading voice during the GMB session with the academics from Yaoundé. In both cases, as well as in the case of the students from Kinshasa, the denominational background could be traced in the discourses, as we will show in Chapters 4 and 5. A nice example of the dominance of Protestant input was the (impartial) role given to the Bible and its interpretation in the discourse of the students from Yaoundé.

In terms of gender, men and women were only equally represented in the student group from Abidjan (nine women, eight men). All the other groups were male dominated, with the academic group from Abidjan (containing just one woman) and the academic group from Kinshasa (containing no women at all) having the lowest scores on the selection criteria. We discussed this with the leadership, who explained to us that especially among the academics it was difficult to find people who wanted to free themselves for a few hours for a research session. However, even more importantly, this gender bias reflects the general situation in important universities in the region. A good example of this is to be found on the website of the prestigious University Félix Houphouët Boigny, the home university of several participants from Abidjan. The website mentions that there are 60,000 students in all programs but only 10% of them are female. The percentage of women among the researchers is higher at 26%, while the percentage of women among the professors is not mentioned.[9] The academic group from Yaoundé had good participation by women, although this was not reflected in all the research sessions. The considerable participation by women was mainly realized in the third research session; in the first session only two women appeared alongside five men. The powerful performance of Martha during this first session was therefore striking (see Chapter 4). The gender biased composition of the groups helps to explain the timid attitude of the female participants, and this is seen during the first session with the students in Yaoundé (nine men, five women). This also offers insight into the very open dynamics during the first session with the students in Abidjan, as described in Chapter 5. However, it is not so easy to understand its impact on the content of the discourses.

The diversity of academic specialisation we asked for was better realized, although in some groups certain disciplines had more influence. Most remarkable was the dominance of theology and philosophy among the academics in Kinshasa. Among the students from the same city there was a strong tendency towards applied sciences (trade, public works, electricity, etc.), which

9 See http://univ-fhb.edu.ci/index.php/ufhb/quelques-chiffres/ last visited on 15 October, 2018. If only 10% of the students are female, then the leadership of the GBU in Abidjan did an excellent job.

influenced the discourse of the group considerably, as we argue in Chapter 5. In general, the participation of students from the natural sciences was poor. Law and philosophy were strongly represented in the student group from Abidjan, which had a clear influence on the debate. Among the academics there was a better equilibrium between the natural sciences, social sciences, and humanities.

Finally, we reflect on the importance of ethnic background, and how this differed in the three cities. In Kinshasa the students were much less aware about their ethnic belonging and its traditions, but this was more important in Abidjan, and was a major theme in Yaoundé. In Chapter 3 we explain the political background to this, particularly with respect to Cameroon and Yaoundé. The selection of participants of different ethnicities was very well done here, because the generally more sceptical attitude of the Bamileke participants towards the importance of their cultural heritage as Christians contrasted nicely with the more harmonious approach of some participants from other ethnic backgrounds (see Chapters 4 and 5).

The research population is therefore diverse, but this diversity has its limitations, especially in relation to church background and academic specialisation. However, we never meant the research to be a representative sample. Instead, we aimed to create diversity within research groups. This diversity contributes to the richness of the GMB process, in which the discourse is negotiated by the group. In this way participants were challenged to contribute to a more general Christian understanding and a broader academic perspective.

3.2 *Research Track*

We started the field research with the online survey ten days before we visited the cities for the first research sessions with the participants in May 2015. The questionnaire served a double purpose. First, it helped the participants to focus on the content of the research sessions. It was therefore important to present this survey just before the first sessions. Second, we also wanted to acquire some relevant information about the participants' backgrounds, and, more specifically, on their major lines of thought concerning science and faith. We mainly asked for their reaction to several theses concerning the relation between science and faith; for example, "My faith is a hindrance to my study" (in the case of the MA students), and "University is a place where Christian faith can prosper" (both groups). The questionnaire for the students can be found in the annex; we used a slightly adapted version for the academics. The final questions, which ask for some keywords that capture what they argued earlier in the survey about science and faith, are fundamental for the research. We used the concepts gathered in the survey to make an example of a small model

called a 'concept model', which we will expand on below. The participation in the survey varied in the groups. In this online survey, the participation of the students from Yaoundé was excellent; eighteen participants took part. The participation of students in Abidjan (eight) and Kinshasa (only two) was significantly lower. The participation of the academics was between seven and eleven. These differences can be explained by the local situations. In May, the situation in Abidjan was still chaotic due to the unrest at the university, and thus it was not easy to get in touch with the participants. In Kinshasa, students appeared to have very limited access to the internet.

Based on the information from the survey, our research team in the Netherlands construed a concept model (Richardson 2013), using the concepts chosen by the participants in the online survey. Because we are especially interested in the way the cultural context influences the model building, we made a separate concept model for each city with only a very small difference between the student and the academic models. The function of a concept model is twofold: a) It allows for an explanation of how model building works, and (b) it helps to start the debate with terms the participants have chosen themselves.

The second phase of the research consists of the GMB session. These sessions took place at the end of May and the beginning of June 2015. To avoid the university hierarchy having a huge impact through the dominance of the academics, we decided to apply GMB in two separate groups in every city; one for MA students and one for academics. The model construction involves two fundamental elements: the variables and the connecting arrows between those variables. In our research, we understand the variables as key concepts related to the practices of scientific engagement and the involvement of faith. After an explanation of our research, we started these sessions with an explanation of GMB. We used the presentation of a concept model, as mentioned above, which enabled the explanation of how model building functions with the help of crucial concepts selected by participants themselves through the survey. The concept model is very basic and normally consists of four to six variables. These variables are connected to each other with the help of arrows. GMB permits only two types of relation (arrow), a positive (indicated by the + sign at the side of the arrow in the models) or a negative (indicated by the – sign at the side of the arrow). The positive arrow indicates that the variables at both ends diminish or increase in the same direction. In contrast, the negative arrow indicates that the development of both variables moves in an opposite direction (see figure YS2 for example; the model of the students from Yaoundé in the annexes). Normally, the participants change the concept model significantly during the GMB session. It therefore has a mainly instrumental significance (i.e., to explain how GMB works). After this introduction, the model building

session starts with the collection of the variables and the subsequent construction of a model (using the two types of arrows in order to establish lines of thought), and finally the cohesion of the discourse. As we explained, we used a survey to collect the variables for the concept model. However, at the beginning of the session itself, we did not use this list of variables but rather asked the participants to mention the concepts they perceived to be indispensable in the debate on science and faith. In this way, everyone was included and heard about the concepts at the start of the meeting.

The third stage took place a few months later, in October and November of 2015. We did not use GMB in this stage but did ask the participants to reconsider the models in focus group sessions. Hennie Boeije confirms the use of focus groups "when the communication and construction of certain knowledge is the main interest of the research" (2010, 64).

Furthermore, according to De Roest, focus group sessions are especially appropriate for theological inquiry, as they are in line with the relational character of God and faith (2015, 253–254). The aim of these sessions was to confirm and analyse the models that had been built. Nearly all the models were confirmed with only the students from Kinshasa proposing some changes to the model they had earlier built (see Chapters 4 and 5). Unfortunately, the participants in the GMB sessions were not identical to those in the first focus groups. Only the student group in Yaoundé had very stable participation, and this was probably due to the efforts of the local team members of our project. In Chapters 4 and 5 we will describe the different local situations.

Apart from the confirmation of the model, the facilitator gave three 'challenge' questions to the groups in order to generate more insight into how the participants themselves understood the model. The first involved the presentation of a concrete case about a doctor who deals with science and faith in everyday life. Its purpose was to clarify how the participants would relate the model they had built to scientific practices. The case was based on an interview we had in one of the three cities during the early, explorative stage of the research. The case is as follows:

> There is a doctor who is a professor of medicine and works in a university hospital somewhere in francophone Africa. When a patient comes to her desk, after listening to the patient's story, she makes her go through a series of exams and tests in order to diagnose the disease. However, in some cases she can't make a diagnosis because the outcomes of the exams don't point to a defined pathology. In that case she concludes there must be a spiritual problem and she decides to pray with the patient.

The second challenging question was about the relation between the denominational background of the participants and the model, while the third concerned the relation between the model and the traditional cultures of the participants. These two questions were meant to explore the participants' reflections on how their context influences the model.

Finally, the fourth stage of the research took place a year later, in the autumn of 2016. Lamentably, we could not go to Kinshasa due to the unrest in the city at that time. However, this last stage consisted of a considerably shorter focus group session in order to evaluate the group's discourse, as reflected in the model, in the light of the models produced by the other groups during the research. In contrast to the focus group session in stage three, we discussed all of the six models produced during the research and started the evaluation of the discourses in a larger group before we had our research session. The idea was that the participants would be inspired by the views of others. The facilitator asked the groups if they could make a strength and weakness analysis of the model and indicate how their discourse on science and faith could be strengthened. This last question appeared hard to answer and none of the groups gave a clear answer.

All the research sessions were audio and video taped and totalled nearly 35 hours. The transcription of the sessions was done in Cameroon and supervised by the team members. We used Atlas-ti for the labelling and analysis of the documents.[10] In the different chapters, we will refer to the Atlas-ti stored documents in the footnotes with a capital P, followed by a number from 1 to 20. An additional number refers to the specific place within the indicated text; for example P12, 51. In this book we anonymize the research and use fictive names to refer to specific individuals. All participants were informed about the specific use we would make of the tapes and signed a consent form. The data is owned by the chair of intercultural theology at the Protestant Theological University. The taped and transcribed sessions are of course also the property of the participants, or at least an organisation from francophone Africa, such as GBU-AF. However, this appeared to be very difficult to actualise in accordance with Dutch law concerning privacy, etc. The ownership thus reflects the North Atlantic domination of science.

The reconstruction and analysis of the discourses can be found in Chapters 4 and 5. We took Yaoundé as the principal case mainly because of the continuity of participation in the student group. Chapter 4 is dedicated to the role of cultural differences between African and Western in the different discourses.

10 Atlas-ti is a tool for qualitative research analysis; see Susanne Friese (2014).

In Chapter 5 we focus on the approach and understanding of science and faith, relating this back to the outcomes of Chapter 4. The models built by the participants during the first research sessions play an important role in the interpretation of the discourse. These models can be found in the annexes at the end of the book as figures with specific codes. For example, figure YS1 refers to the concept model that the researchers from the Netherlands construed based on the results of the online survey and used to start the session with the students in Yaoundé. Figure AS2 is the model built by the students from Abidjan, etc. In the case of the students group from Kinshasa there are three models, because during the second session this group decided to change the model they had built before; this altered model is called figure KS3.

For those interested, we give some basic information on how to read these models. Above we explained that there are three basic elements for model building: the variables (first selected by the group during the research session), positive arrows (indicated with +) and negative arrows (indicated with -). A positive arrow indicates that the variable at the rear of the arrow contributes positively to the variable at the head of the arrow. The negative arrow indicates a negative contribution. Reading the model implies spelling out the different feedback loops in the model and studying how these loops relate to each other. For example, the students in Abidjan construed the simplest model of all the groups with just two feedback loops (see figure AS2). In their model, both feedback-loops have two negative arrows and are therefore reinforcing. Overall the three elements of variables, positive arrows, and negative arrows describe a process with the following content:

> *Feedback-loop AA* argues that more (knowledge of) truth leads to a positive contribution to the knowledge of the domain of study, which leads to a decrease in the experience of insecurity at the university. This positively affects the quality of the academic culture and that leads to an increase in truth, etc.
>
> *Feedback-loop AB* is quite similar, although it represents the dynamics of the knowledge of faith instead of the knowledge of science: more truth leads to more knowledge of faith, which lessens the experience of insecurity at the university. This strengthens the quality of academic culture and, therefore, leads to more truth, etc.
>
> Feedback loops can either be reinforcing, like those in figure AS2, or balancing. Reinforcing loops have an even number of negative arrows, while balancing loops consist of an odd number of negative arrows. As an example, the model of the students in Yaoundé has very few reinforcing feedback loops. The balancing loops indicate that there is not an

established understanding of the main issue in this group; this is elaborated on in Chapters 4 and 5.

3.3 *Looking Back*

Looking back, we admit that we did not foresee all the consequences of the research track at the start. Perhaps the weakest point of the research was the planning of the sessions and the consequent discontinuity of the research population, especially in Abidjan and Kinshasa. Although we could guarantee that there were always at least three of the people who participated in the first session present in the latter sessions, in some cases the ownership of the discourse was not strongly felt, as is clear in the following chapters. It is, however, very remarkable that the student group from Yaoundé stayed intact during the whole period of the research. This is at least partly due to Lynda who worked at the project's office in Yaoundé. She was able to keep in contact with the participants and to encourage them to come to the next research session. In Abidjan the drop out among the students was substantial. We were told that those who left had found a job or gone to study elsewhere. However, the groups of academics also suffered from discontinuity, although not as much. However, thanks to the network of GBU new participants were found. In the case of the academics from Yaoundé, a newcomer appeared to play a very important role in helping to uncover more hidden layers in the discourse of the model building session. In general, however, the impact was less positive. It would have been far better if the research sessions had been organised within a shorter time span, for example within a month, instead of a year and a half. In any case, working with students is probably be most straightforward if one works within the limits of a semester.

This research would have been impossible without the help of local partners, in this case the student organisation GBU in the different countries (GBU-Cote d'Ivoire, GBU-RD Congo and GBEEC). In the first place, they offered us a broad national network of contacts, not only within their traditional evangelical peer group but also beyond. Additionally, the national staff, the board, and the organisational infrastructure were of incredible value. They were really interested in the results of our research, which made this project a shared enterprise. Above we have already highlighted the importance of the work of the local team member, Lynda Zegha. Her engagement helped to avoid a massive drop out among students in Yaoundé, and, although she could not do the same in the other two cities, her engagement with students and academics in Abidjan and Kinshasa made her an extremely valuable link with local organisations and the participants. Doing research in other cultural contexts is greatly improved by a local team member.

CHAPTER 3

The Intercultural Dynamics in Which the Discourses Take Place

Most of the time, first impressions are important. Before starting the research we visited the three cities to explore the field and connect with partners, stakeholders, and possible participants. Some of us had visited Abidjan and Yaoundé before, but Kinshasa was new to us all and certainly made an impression on us when we first visited in January 2015. The long highway from the airport to the city centre captures something of life in this lively capital. The road is full of all kinds of ancient cars and old buses shaking under heavy loads of people, as well as some very expensive SUVs with tinted windows. On both sides of the highway people constantly stream by on foot and bicycles, carrying bags, goods – sometimes things that you really did not expect people to carry. Occasionally, a destination is revealed: one of us notices a coffin packed with all sorts of other things in a crowded car. Crossing the road is a real challenge for both pedestrians and drivers but happens quite regularly even on busy roads. Leaving the highway, our car slows down. The people are closer and appear to be walking fast. Most of them are young and very self-conscious about their outfits, often dressed to impress. They radiate energy and vitality. The older people move more slowly, shopping and chatting.

Everywhere impressive advertisements announce all kinds of events and a substantial number of the billboards we come across announce prayer meetings, retreats, or evangelistic rallies that promise 'blessing' or 'healing' and are led by 'prophets' or 'apostles'. Our first impression of Kinshasa was of a very crowded, energetic, and largely Christian city.

This brief impression of Kinshasa, recorded from the perspective of the researchers, introduces the more specific context of the research and should help the reader to understand the research population we offer in this chapter. The discourses we reconstruct and study in this book are part of larger educational dynamics in these contexts that are profoundly marked by intercultural exchange. In this chapter, we concentrate on some prominent characteristics of these dynamics, including their historical development and geographical variation. First, we introduce the argument of this chapter with three preliminary remarks. We then provide a short orientation on the countries in which the research took place, including an introduction to the cities, to enable the reader to 'land' in the concrete situation. Subsequently, we give an overview of

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the educational dynamics in the traditional, colonial, and independent periods, tracing the development of formal education which is one of the most important intercultural networks put into place in this region. In the colonial and independent/postcolonial periods we focus on the development of the African understanding of the French notion of *laïcité*, the separation of church and state. Finally, we describe the universities, which are prominent postcolonial institutions in this region and provide the settings for this inquiry.

1 Preliminary Remarks

We begin with three preliminary remarks in order to clarify the major concerns of this chapter. In the first place, some brief comments about our focus on the intercultural dynamics in which the discourses take place. The educational setting of the discourses is closely connected to a history of encounters between an impressive diversity of local peoples from francophone Africa and various representatives from the North Atlantic world. Decisive cultural interchanges with implications for education took place even before colonial times, as we will argue below. We therefore understand the contexts not as static backdrops, but as dynamics that give rise to, and find their continuation in, the discourses.

The dynamic approach to the context that we advocate for here is closely related to the use of GMB as a major research tool, which we introduced in the previous chapter. If we see each of the discourses as a system, we understand it as being fed by various incoming flows and existing as part of a bigger 'system'. The entirety of the incoming flows is in fact an ungraspable quantity. Therefore, we do not pretend to give a complete description of the 'inflows' into the system in this chapter, but rather want to point to some crucial currents that contribute to and are continued in various ways in each of the discourses.

This emphasis on the ongoing processes of intercultural encounter and exchange not only helps to avoid a too rigid understanding of the different historical periods we mention, such as colonial and postcolonial, but also makes the relation between cultural characteristics and geography more flexible. Hence, one of the ideas behind an intercultural approach is the overcoming of cultural stereotypes (Boele van Hensbroek 2013, 34–38). An interesting detail in this respect is that in one of the pre-colonial encounters we just mentioned the representative of the North Atlantic world was a freed slave of African American origin as we will explain below. Nevertheless, this flexibility must not erase the importance of the (geographical and cultural) place where the

discourses take place; the so-called 'positionality' (Hof 2016, 83). This underlines the concreteness or 'materiality' that makes both the encounters and the discourses possible (Mbembe 2001, cited in Hof 2016, 83n14).

In the second place, focusing more on positionality, we limit ourselves nearly exclusively to the interaction between traditional African and the North Atlantic cultures. This is justified by the fact that most formal educational programs and, more specifically, science as an academic enterprise, entered this region through interactions with Europe and North America. Consequently, however, other (mostly older) intercultural educational dynamics within sub-Saharan African cultures as well as in relation to Northern and Eastern Africa and Arabia through trade and religion (Islam) remain outside our perspective. We do not deny the importance of these influences for the educational practices in this region, but, from our perspective, they are less significant for the discourses on science among Christians as we have found no clear reference to them. Furthermore, in this context it is also important to acknowledge that Christianity from the North Atlantic world is also the product of an intercultural interplay. Therefore, the interaction with North Atlantic Christianity also enabled a mediated interaction with older cultural traditions, especially through the Bible, that were themselves not of North Atlantic origin. These Scriptures were translated into African languages from an early stage. Although we do not deny the influence of North Atlantic culture in the whole process of translation and transmission, it did nevertheless allow for a much more direct interaction with these traditions, which were also originally imported to Europe. African readers soon discovered that the world captured in these texts was much closer to their African traditional heritage in a number of respects than to the cultural context of the European and North-American missionaries who mediated these Scriptures to them. This was certainly evident in the close interest in ritual purity, sacrifice, and the rural context, as well as the interest in family ties and genealogies (cf. Bediako 1992, 1998). Although we acknowledge that 'traditional' is a contested term, we use it here as a reference to the ethnic cultural heritage that has contributed to the formation of peoples, and that is subject to change itself.

Finally, we limit the presentations of the countries and the cities due to space constraints. Rather than introduce the reader more profoundly to the complex social and political processes in which the three countries are caught up, we give short descriptions of some relevant elements from the different situations and only a small portion of their recent histories. Although we would like to offer more, and we are also convinced that this would be enriching, we want to avoid the temptation of attempting a comprehensive and all-embracing understanding of what is happening because that is not the aim of

this book. Instead we concentrate on the discourses produced by the participants. In this chapter we indicate the main possibilities and challenges of intercultural exchange in the contexts of the discourses. However, the limited information we offer clearly indicates that the connections with the North Atlantic world have a decisive impact on the social and political situations of the countries involved. The French language and France's colonial and postcolonial policies play a particularly prominent role, and the subsequent chapters will reveal how the discourses reflect this context.

2 Geographic Orientations

As we explained in the preceding chapters, we have deliberately chosen three university cities from francophone countries in Africa with considerable differences in their relations to France and the North Atlantic world in general. In this section, we present some features of these countries and the intercultural exchange that takes place in these contexts. In the following descriptions we make use of information from the World Bank, an institution that is itself an instrument of intercultural politics in which the dominance of the North Atlantic world cannot be denied. Its so-called Social Adjustment Programs have especially influenced the economic, political, and social situations in the three countries mentioned below.

Education is convincingly shown to be one of the areas most affected by these programs (Reimers 1994).[1] Our handling of the information from the World Bank is done with a certain restraint, in order to avoid the dominance of an economic instead of an intercultural focus.

2.1 *Ivory Coast and Abidjan*

The website of the World Bank provides a favourable image of Ivory Coast's financial and social situation. While there was a strong increase in poverty after 1985 until 2011, recent statistics show a remarkable economic recovery. This reversal, following the latest political crisis in 2010, is outstanding. The average real growth of the country's GDP between 2012 and 2015 is 8.5% annually, making it "one of the highest rates in Sub-Saharan Africa" (World Bank 2016). This growth is driven by agriculture (mainly cacao, coffee, cotton, palm oil, and fruits), oil, industry, and services. The progress is beginning to influence the

1 The position of women is also severely affected. See for example Dzodzi Tsikata's article, https://www.globalpolicy.org/component/content/article/218/46625.html, accessed 15 October , 2018.

poverty incidence; the estimated percentage of the population living below the poverty line in 2015 is 46% (World Bank 2016).[2] During our periodical visits to Abidjan, we witnessed the rising investments in infrastructure related to this growth. Politically, a certain equilibrium seems to have been reached; the relatively quiet elections of 2015 that resulted in the re-election of president Ouattara could be interpreted as an indication that the political instability of the last decades has been overcome, at least for the time being. While the 2016 national referendum on the controversial new constitution was boycotted by the opposition, it did not lead to severe violent confrontations.

However, both positive developments also indicate that the improvements in Ivory Coast's situation have been achieved following a long period of crises and instability. Ivory Coast was once a wealthy country in West-Africa, especially during the first 25 years of autocratic rule by the legendary president Félix Houphouët-Boigny. He was the first leader of the independent state and maintained the presidency from independence in 1960 until his death in 1993. Houphouët invented the term 'Françafrique', which expresses his ideal for his country based on a close relationship with France, the former coloniser. However, his politics finally led to instability during the last period of his rule when he was forced to open up to a more democratic form of government. After his death, the conflicts increased. The political confrontations and civil wars (2002–2003 and 2010–2011) significantly impoverished the once envied country. The nature of Houphouët's administration and influence is crucial for understanding these severe crises (Hofnung 2011). Economic and ethnic diversity were made invisible within the overarching national identity ('Ivoirité'), which facilitated the national government's unequal treatment of the North and the South, leading to conflicts and consequently to the war (Bellamy and Williams 2011).

Although the World Bank's numbers highlight the success of president Ouattara's administration, the Human Rights Watch's agenda for Ivory Coast, 'To Consolidate this Peace of Ours' (2015), points to its weaknesses as well. The impunity for past human rights abuses and the continued abuse of power by security forces and police, but also the lack of a process of reconciliation on a local and regional level, the ongoing corruption, and the failure of land reforms show the problematic social and juridical side of the economic success. It is noteworthy that the religious differences that mark Ivory Coast receive so little attention in these presentations. According to one of the informants we interviewed in the first phase of our research, religion is not the dividing element in

2 See http://www.worldbank.org/en/country/cotedivoire/overview#1, accessed on 15 October 2018.

Ivorian society. According to him, ethnicity is far more divisive, a perspective that is confirmed by the literature (Page, Evans and Mercer 2010, 346). Muslims and Christians are both strongly present in Ivory Coast, the first stronger in the north of the country, the second predominantly in the south. Under Houphouët and his immediate successor the north was discriminated against (Bellamy and Williams 2011). The Global Religious Futures website indicates that 44% is Christian and 38% Muslim, although other sources indicate that the percentage of Muslims surpasses that of Christians.[3] Apart from these two groups, a substantial part of the population is thought to adhere to an indigenous religion. The difficulty of mapping religion in this region of the world (and not only here) is, amongst other reasons, due to the multiple religious belonging of many people.

At first sight, the relationship with France has changed completely over the years; the situation is not the same as in the old days of 'le Vieux', as Houphouët was called. Ouattara is a former employee of the IMF, and the impact of this and other international institutions like the World Bank and the United Nations must not be underestimated. Regional cooperation within the Union Économique et Monétaire Ouest Africaine (UEMOA; eight French-speaking countries in West Africa that share the West African franc as a common currency) and cooperation with other bodies of continental cooperation like ECOWAS and the African Union, encourage cultural exchange. However, this diversification cannot hide the fact that France is still prominently present in Ivory Coast. This presence was intensified during the period of crises and wars indicated above. France played the leading role in the international peacekeeping mission sent by the United Nations in 2011, bringing the French army back into the country. During the time of our research the French military was still active there. In a way, this implied a return to colonial rule because France's peacekeeping operations in Ivory Coast were built on the old colonial relation between the countries (Charbonneau 2014, 623–630). However, the most powerful and enduring instrument of France's influence is the use of French as the official language of the country (Kouadio N'Guessan 2008). Its contribution to the country's unity (there are approximately seventy languages spoken in Ivory Coast) makes it a constitutive part of the national identity.[4] The ethnic and cultural diversity makes many administrative and political processes in the country deeply intercultural. The unstable periods of the last decades also affected Ivory Coast's international and intercultural relations with its neighbouring

3 See http://www.geocurrents.info/cultural-geography/religious-complexity-in-ivory-coast, accessed on 15 October 2018.

4 See http://www.axl.cefan.ulaval.ca/afrique/cotiv.htm, accessed on 15 October 2018.

countries. Because of its wealth and stability, Ivory Coast once attracted a lot of migrants from the region. Even before its independence migrants, especially from Burkina Faso, came to work on its plantations. When instability and war affected Ivory Coast these migrants became a vulnerable group, especially in light of the nationalist rhetoric of 'Ivoirité' (Bjarnesen 2013, 17). This makes the regional interchanges far more complicated at the moment.[5]

In this research we worked with students and academics mainly from the city of Abidjan which is the economic and administrative centre of Ivory Coast. Although Houphouët made his home town Yamoussoukro the capital of the country in 1983, Abidjan remained the most important city and part of the national government is still situated here. The city is located in the Region des Lagunes, the most populated part of the country. Abidjan is situated near to the coast and developed fast during the last period of colonial rule. In 1950 a canal gave Abidjan direct access to the Atlantic Ocean and a big seaport was built. Abidjan is seen as the most important financial centre of French-speaking West Africa.[6] 'Le Plateau' is the prestigious financial district of the city, while the Cocody area is known for the campuses of various universities, of which the state's Université Félix Houphouët-Boigny is the most famous. This university's website communicates that it hosts 60,000 students.[7] In 2014, Abidjan had nearly 5 million inhabitants, which is more than 20% of the total population of the country (23.4 million in 2016). In Abidjan, the cultural and ethnic diversity of the country, including its important migrant communities, is welcoming to people from overseas who are attracted by the financial facilities of the city, as well as its positive business climate and the country's natural resources and products. Although France keeps a firm grip on the construction of infrastructure, it is clear that other investors, mainly Chinese, are keen to participate in Ivory Coast's economy (Charbonneau 2014, 624–625). Together this creates a vibrant international context in which intercultural exchange is an intense everyday practice for most people.

2.2 *Cameroon and Yaoundé*

We now turn to Cameroon, part of the central African region. Its capital, Yaoundé, is the second location of our research. The governance of the first

5 An interesting detail is that president Ouattara is a descendant of migrants and that the accepted proposal of the new constitution also enlarges the possibility for migrants to become elected to democratic bodies and as president of the republic.

6 See https://www.britannica.com/place/Abidjan, accessed on 15 October 2018.

7 See http://univ-fhb.edu.ci/fr/index.php/ufhb/quelques-chiffres-de-l-ufhb, accessed on 15 October 2018. Only 10% of the students appear to be girls. It is not clear if these are the numbers of 2016 or a previous year.

president of Cameroon, Ahidjo (1961–1982), and of his successor, Paul Biya (1982-present), are characterized by an autocratic style. That the latter had to accept a multiparty democracy in the 1990s did not really change this reality (Seemndze 2016, 163). Their long rules, despite some minor opposition that caused bloodshed (Nkwi 2013), brought a certain stability. Ahidjo was Muslim and Biya is Christian, although it is argued that it is not their religious affiliation but mainly their ethnic belonging and cultural politics that shape their political profiles (Konings and Nyamnjoh 2003, 6–7). According to the 'Global Religious Futures' website, 18% of Cameroon's population is Muslim and 70% Christian.[8] However, despite the enduring relative stability, the economic results of the country are somewhat disappointing. In the 1980s Cameroon's economy was booming, but towards the end of the century it experienced various critical moments. Although the statistics from the last few years show a continuing and stable growth in the GDP, the number of poor people increased by 12% between 2007 and 2014, and the poverty is mainly concentrated in the northern region. Corruption and a lack of political transparency are indicated as important barriers to attracting more foreign investors who will stimulate (a more equal) economic growth.[9]

In population (23.3 million in 2015) Cameroon is equal to Ivory Coast, but its linguistic diversity is considerably richer. The country harbours 275 living indigenous languages.[10] Because the colonial rulers drew the borders of countries without taking into account the communication lines and linguistic groups, a lot of Cameroon's ethnic groups have people of their group living in neighbouring countries (Eposi Ngeve & Egbe Orock 2012). This means that international contacts do not automatically lead to intercultural exchange. Because of its complex colonial history, being first a German colony and then, after the First World War, a protectorate of the League of Nations governed partly by the British and partly by the French, both English and French are used for national communication. Although the French-speaking part is significantly larger, the country is officially bilingual (Seemndze 2016, 160–161). The multi-ethnic and multilinguistic composition of the country has greatly influenced the politics of the independent state and its struggle for national

8 See http://www.globalreligiousfutures.org/countries/cameroon/religious_demography#/?affiliations_religion_id=0&affiliations_year=2010, accessed on 16 October, 2018.

9 See http://www.worldbank.org/en/country/cameroon/overview, accessed on 16 October 2018.

10 See https://www.ethnologue.com/country/CM, accessed on 16 October 2018. However, one should take into account that defining the different languages and cultures in an African country is a contested activity, and therefore the considerable difference between Ivory Coast and Cameroon mentioned here should not be understood as a 'hard fact'.

unity and identity. There is a shared perspective among social scientists that the two regimes that ruled the country after independence continued the colonial politics of manipulating cultural diversity for their own benefit. They therefore failed in their role as unifying agents of national identity (Page, Evans and Mercer 2010; Eposi Ngeve and Egbe Orock 2012; Seemndze 2016).

Although this kind of cultural politics also exists in the other two countries, it particularly affects the discourses from Yaoundé where a substantial group of Bamileke people participated in the research (see Chapter 4). The Bamileke, who originate from Western Cameroon, have an important role in the ethnic struggle for power and the cultural politics of both presidents in the post-independence period. The Bamileke were favoured during the rule of president Ahidjo, and many came to Yaoundé. This created tension with the Beti, the dominant group in Central Cameroon at that time. However, the current president, Paul Biya, is a Beti, and this affected the state's policy to the disadvantage of the Bamileke. According to Konings, the ethnic rivalry particularly affected the students' movement and the conflict at the University of Yaoundé in the nineties (Konings 2011, 27–30, 42 and 206).

Apart from the Anglophone region in the west, the predominantly Muslim northern part of the country appears to be especially vulnerable to this kind of political approach and subsequent conflicts (Seemndze 2016). The recent attacks by Boko Haram[11] from neighbouring Nigeria and the invasion of refugees have destabilized the north even more. The Boko Haram network goes beyond Nigeria and links Cameroon with a powerful force in the region that is related to offshoots in other parts of the continent. This affects the whole country and provokes migration from the region of conflict towards the centre (Nkwi 2013). Another migrant stream comes from the Central African Republic. Refugees have entered Cameroon because of the violent clashes between invading Muslim militia, the national army, and local militias. Like Ivory Coast, Cameroon is involved in many forms of cooperation with its neighbouring countries as well as other partners from the continent. A similar economic and monetary union to the one in West Africa also exists in French-speaking Central Africa. The Central African franc (XAF) is the currency of Cameroon and five other Central African countries.

The relationships with the former colonizing countries are fundamental for Cameroon and its leadership. Because France maintains particularly close

11 Specialists confirm that the name 'Boko Haram' in Hausa, one of the languages in Northern Nigeria, means 'Western education is a sin ', see http://www.bbc.com/news/blogs-magazine-monitor-27390954, accessed 15 October 2018. This is definitely an evocative name in the context of this book.

relations with its former colonies and does not like 'outside interference in their affairs' in general, it is also very much engaged with Cameroon. Some even claim that "cooperation policy is its main instrument of French power politics" and perceive France's aid acts "as the central cog in its patron – client machine at the heart of its relations with Africa" (Emmanuel 2010, 866–867). Emmanuel argues that the aid money from Paris maintained Biya in power during the call for democratization in the early 1990s (2010, 868). When German and American aid was declined in order to force Biya into opening up to democracy, France decided to augment their aid contribution to the country. They wanted the president as their loyal partner to continue in office, and Cameroon became, after Ivory Coast, the second most important destination of France's aid worldwide (Emmanuel 2010, 869–872). This example shows the political and economic impact of France in Cameroon, as well as the (military) importance of Cameroon for France's geopolitics.[12] Cameroon is also a member of the British Commonwealth. In contrast to the French, the British have a more integrated policy of culture, development, and politics in their involvement with Cameroon (Torrent 2011). This implies that the British association with Cameroon is not likely to be dominated by geostrategic aims. Additionally, Nigeria is a far more important partner for British interests in this world region. Finally, Germany, as Cameroon's first European colonizing power has a particular influence on the country as well. We already mentioned Germany's involvement in the battle for democracy during the early 1990s. This 'critical loyalty' is still an important characteristic of Germany's contribution to Cameroon.[13] As is the case for many African countries, China has recently become more and more important when it comes to international relationships, and Chinese engagement in education in Cameroon is remarkable (Nortveit 2011).

The city of Douala is Cameroon's major port and largest city. The capital Yaoundé is smaller, with approximately 2.5 million inhabitants, and is situated in the mountains towards the middle of the country.[14] Yaoundé is a centre of administration and education and less an international centre of trade, as Douala is. However, as the capital and seat of the government it attracts people from all over the country and from abroad, and thus the city is developing fast. The government buildings give Yaoundé some of the grandeur of a capital,

12 See also the definition of the relationship between the countries at the website of the French government, http://www.diplomatie.gouv.fr/fr/dossiers-pays/cameroun/la-france-et-le-cameroun/, accessed on 16 October 2018.

13 See the website of the 'Deutsche Botschaft Jaunde', https://jaunde.diplo.de/, accessed on 16 October 2018.

14 See http://worldpopulationreview.com/countries/cameroon-population/, accessed on 16 October 2018.

although in general it looks like a continuous clustering of neighbourhoods situated on nearly endless hillsides. The population of the city is very young, as it usually is in African cities, and education forms an important part of daily dynamics. The city harbours prestigious universities, such as the state universities Yaoundé I and Yaoundé II.[15] The website of Yaoundé I (the larger of the two universities) indicates that it hosts more than 55,000 students. The university is comprised of various faculties and what are called 'grandes écoles', and also four schools for doctoral programs.

2.3 *The Democratic Republic of Congo and Kinshasa*

Finally, we turn to Congo. Surprisingly, the World Bank's statistics for DRC show relatively positive results. The inflation rate of 53% in 2009 calmed down to 1% from 2013–2015. The high GDP growth over the last few years, nearly 8% for the period 2010–2015, was due to the high prices of natural resources on the world market. These prices fell in 2016 and therefore a much smaller growth is foreseen. Lamentably, few people have been taking advantage of the economic growth; DRC is among the poorest countries in the world and placed 176 out of 188 on the Human Development Index.[16] In one of the meetings during our first orientation in Kinshasa in 2015 someone told us how steeply the production of agricultural products had fallen, and even basic food supplies came from abroad. This corresponds to the numbers of children with severe malnutrition, especially in the rural areas of the country (47% of the children), a result of wars and the neglect of the agricultural sector (Kismul, Hatløy, Andersen, Mapatano, Van den Broeck & Moland 2015). A lot of people are displaced or have taken refuge outside the country. Contrary to Ivory Coast and Cameroon, DRC does not participate in economic or monetary unions. It is, however, deeply involved in all kinds of international relations, mostly related to the conflicts that plague the country and the trade of metals and minerals.

Recent quarrels between the government and opposition about the date of the elections in 2016 created instability again.[17] This affected our research as it meant that we could not travel to Kinshasa in the autumn of 2016 for the last phase of the focus group sessions. The political unrest goes back to the end of the Mobutu regime in the 1990s and the subsequent destabilisation of the country, despite the effects of the genocide in Rwanda (1994) and the invasion of troops from neighbouring Uganda and Rwanda at the end of the 1990s (Clark

15 The names follow the famous example of Paris.

16 See http://hdr.undp.org/sites/default/files/hdr_2015_statistical_annex.pdf, accessed on 16 October 2018.

17 See http://www.worldbank.org/en/country/drc/overview#1, accessed on 16 October 2018.

2001). The desire for Congo's natural resources, together with ethnic rivalry and the related colonial heritage are the main causes of war. Since then, many countries and international organisations like the UN have been involved in the conflict, which has many regional or even local offshoots, especially in the eastern part of the country (Autesserre 2008). The continental impact is indicated by the designation 'Great War in Africa'. During the period of war in DRC other armed conflicts on the continent took place (Sudan, Uganda, and Angola), which were linked to the armed conflict in DRC (De Jong 2016, 12; Williams 2013). The election of Joseph Kabila in 2006 did not stop the violence. The large scale sexual abuse of women, one of the characteristics by which the wars in Congo became known in the North Atlantic world, continued in the period after his election, carried out not only by the military and civilians, but even by the peacekeeping forces. The practices of war seem to have created a culture of rape (De Jong 2016, 26–29) that continues to have an impact on the society and the children born from this abuse (Nyamujangwa and Nsimire Zihalirwa 2013). This is one of the indications that the ongoing unrest, war, and abuse of power have corrupted what is perceived as normal and culturally acceptable.

During the last two decades, the international relationships with North Atlantic countries have been dominated by the war and the peace processes. Four countries, Belgium the former coloniser, France, the UK, and the USA, have been the main participants.[18] In 1996 France was on the side of Mobutu while the UK and USA chose the side of Uganda and Rwanda. The rivalry between the North Atlantic countries contributed to the impact of the war. When the Kabilas came to power, Laurent in 1997 and Joseph in 2001, things changed, and the USA and UK restored their bonds with Kinshasa. According to Gegout, however, the USA, UK, and France mainly continued to pursue their own geostrategic interests. In order to maintain their power and influence in francophone Africa, the French contributed significant monetary aid and military presence to DRC, but the latter was under the EU banner (Gegout 2009). From Gegout and other analyses of the conflict in DRC it becomes clear that Belgium's role was eclipsed by that of France and the EU, although its ongoing diplomatic efforts and substantial financial aid are recognized.

The cultural diversity of DRC is significant. There are 206 living indigenous and 5 non-indigenous languages spoken in the country, which has a population of nearly 80 million (2015). Some of these languages are mostly local, while others are spoken more widely. We make special mention of Lingala, a language

18 South Africa could also be mentioned here. See Kabemba 2006.

used in Kinshasa and various regions and spoken by more than 2 million people. However, French is the official national language.[19]

Culturally, Kinshasa is a world apart. It is by far the largest city in the country and its central function on the levels of administration, economics, and cultural life has been undisputed since colonial times. In this city of approximately 10 million inhabitants, the mix of African and North Atlantic cultures has led to a creative and dynamic environment that is famous for its music, dance, and film productions (Pype 2016). With the capital of the neighbouring Republic of Congo, Brazzaville, only eight kilometres away on the other side of the mighty Congo River, it forms a unique urban area on the continent. In her study of the Christian film scene in Kinshasa, the anthropologist Katrien Pype gives a telling description of the urban culture, called 'La Kinoiserie' and 'KinKiesse'.

> The ideal of a man with money and a girl with a beautiful figure is celebrated … A Kinois is a *talker*. He likes to speak, often using deformed Lingala (kiKinois). He is a *yankee*, a *gaillard*, and believes he is above all other Congolese. He likes to dress well, despite his poverty… Even if he has nothing he is immaculately groomed. He likes beer and women, and dreams out loud of leaving for Europe… A Kinois will always find money, one way or another.

Needless to say, a conversion to Christianity in its Evangelical or Pentecostal forms, implies a severe criticism of this culture (Pype 2012, 29–32). Another important feature of this city is what Pype calls the "homogenizing work about ethnicity that is currently going on in Kinshasa" (Pype 2012, 237). Most ethnic groups lose their specific habits and practices, and instead a more urban culture is born. Pype shows that this city's culture is not particularly 'European' or 'Western' or related to one specific ethnicity, but is deeply rooted in older African traditions such as the belief in good and bad spirits. This phenomenon was evident in the focus group of students from Kinshasa. When they were asked to reflect on the influence of their African traditions on the model they built they said that they had very limited knowledge of their ethnic background. This is a remarkable difference compared to the students from Abidjan and Yaoundé.

19 See https://www.ethnologue.com/country/CD, accessed on 16 October 2018.

3 Education and *laïcité* in French-speaking Africa

Before the disastrous scramble for Africa began, important intercultural encounters took place between the North Atlantic and African cultures. Western countries were already present in Africa long before the race to dominate the continent began. From the sixteenth century onwards, Portugal, France, Britain, and the Netherlands came to Sub-Saharan Africa and stayed there mainly for trade purposes although military interests also played a role. Apart from the massive slave transportations, contact with the local peoples was limited. However, the changing understanding of the function and the impact of this presence during the second half of the nineteenth century made the presence of the European countries on the continent far more intense (Newbury and Kanya-Forstner 1969). The development of these European political ideas was preceded by a renewed interest in Africa from the USA and the UK, as expressed in the founding of communities or colonies and then finally states for Afro-Americans or Afro-English people in what became Liberia and Sierra Leone (Ojo and Agbude 2012).

Furthermore, the increased missionary activities, especially by mission societies and orders, were partly orientated towards Africa but must not be equated with colonisation (Sanneh 2009, 142–155) despite there being certain links between mission and colonisation as we will argue below.

3.1 *Christianity in Africa*

For a proper understanding of our subject, we must elaborate on the relation between the African continent and Christianity. For African Christians, North Atlantic missionary history should not be isolated from the older history of Christianity on the African continent.

Both in the Old and New Testament, one encounters exchanges with Africa, famously in the presence of the Queen of Sheba in the Old Testament and the Ethiopian Eunuch in the New Testament.[20] Christian communities were established in North Africa from the first century onward and contemporary churches in Egypt and Ethiopia date their origins back to the first centuries of the Christian era (Sundkler and Steed 2000, 7ff; Oden 2007, 18–26).

Though modern African Christianity's origins, specifically in the countries of this study, are mainly North Atlantic, the symbolic value of these earlier influences is significant. African Christian communities and theologians often refer back to these early African origins in order to point out that Christianity is not simply a white man's, or Western, religion. In many Independent African

20 See 1 Kings 10 and Acts 8.

Churches the Ethiopian church is held in high esteem and has a crucial symbolic value, even where direct historic links might be non-existent (Hastings 1994, 478–487).

Recent studies have also pointed out that the relationship between modern missions and colonialism was ambivalent. Most missionaries in the modern era would to an important degree have accepted the notion that their role was not only to proclaim the Gospel, but also to 'civilise' the heathen. This was an automatic consequence of the idea that European and North American civilisation was the fruit of Christian influence. This has, of course, led to the accusation that Christian mission in Africa was an instrument of Western colonialism (f. ex. Mugambi 1992). This does not, however, mean that missionaries saw themselves as agents of colonial powers. Missions had their own agenda for which they considered themselves accountable to God and were consequently willing to criticize colonial administrations if they believed they were abusing their power. Yet, particularly in the case of missionaries who did not originate from the colonial nations themselves (such as in the case of Swedish or North American mission agencies working in French-speaking colonies), their political influence was limited given that their residence permit could be withdrawn by the colonial administration. Their educational policies could also have different interests. In a number of cases, mission agencies wanted to begin primary schools in local African languages, but the French colonial administration only permitted schools that would use the French language and would thus contribute to the civilising project of the French government (Janzon 2010).

More importantly, it is increasingly clear that the indigenous collaborators played a crucial role in the spread of Christianity in Africa. These local catechists and evangelists were the primary mediators between the expatriate missionaries and the local population. Nevertheless, they were not simply the mouthpiece of the missionaries but understood its content and importance in their own manner, in a way that made sense to them in their own cultural vocabulary and social context, and they communicated it accordingly (Sanneh 1983).

The ownership, or at least co-ownership, of Christianity by Africans themselves even before political independence from the colonial powers is probably revealed most clearly by the many independent Christian African movements that rose in the margins of the church. In their earlier stages, these movements were often started by collaborators of Western missions turned African Christian prophets. They intended to present a form of Christianity that was both free from Western institutional structures and from Western cultural dominance. For the countries under our consideration, we can point as

an example to the prophet William Wade Harris in West Africa (c. 1860–1929) (Hastings 1994, 443ff; 505ff) and Simon Kimbangu in the Congo region (1887–1951) (Hastings 1994, 508ff), who both attracted millions of followers. In the modern urban environments in which the students and academics of this study function, recent charismatic movements are even more important than these older African Independent Churches. These churches and para-church ministries developed out of revival movements in the final decades of the twentieth century, and now represent some of the most numerous groups in African Christianity. Though these groups are sometimes seen as an expression of North American influence, it would be more appropriate to see them as a global phenomenon that strongly resonates with an African cultural and religious heritage (Omenyo 2002).

In many places in Africa, an encounter with missionaries was the first meeting with people and cultures from the North Atlantic. When it comes to education, these encounters have in many cases been at least as decisive as the coming of modern colonialism. An example is the special encounter between the team of the Jamaican Baptist Missionary Society and the inhabitants of the coastal area of what is called now Cameroon in the early forties of the nineteenth century. These first missionaries were mainly liberated slaves who wanted to share the gospel with the people of the countries they hailed from. The Jamaican mission post was handed over to the London Baptist Mission in the fifties but some of the Jamaican missionaries continued to work there. A translation of the gospel of Matthew had already appeared in 1848 and was followed by the complete New Testament in 1860. Of course, both required a form of school education in order to read it (Messina and Van Slageren 2005, 27–31). All Christian missions in Africa were engaged in education. According to Gallego and Woodberry "over 90% of Western education in sub-Saharan Africa during the colonial period was provided by missionaries" (2010, 298–299). These authors underline the specifically protestant emphasis on the importance of Bible translation and subsequent education in the local languages. Translation and the use of the vernacular form a crucial element of the work of the historian Lamin Sanneh (cf. Sanneh 2009). He even argues that the use of the vernacular by the missionaries encouraged opposition to colonial rule. He also points to the discouragement of the use of the vernacular by the authorities in francophone countries because of the possible threat to the state (Sanneh 1992, 96).

3.2 *African Traditional Education and Worldview*

Although the education offered by the missionaries is an important starting point for understanding the intercultural exchange between Africans and

people from the North Atlantic world, educational processes were already a common phenomenon within indigenous communities since time immemorial. Although little is known about education in the era before the Westerners came, there is evidence of very old forms of science and of what is called African Indigenous Knowledge. This knowledge and its transmission cannot be understood apart from the concrete societies in which it arose, and it must therefore not easily be universalised as 'African', although "commonalities between these bodies of knowledge" must not be excluded (Emeagwali and Shiza 2016, 9). More recent studies of personal formation in ethnic groups give at least an idea of some important principles of traditional education. Based on the principles of preparationism (preparation for the roles in society, i.e. initiation), functionalism, communalism, perennialism (maintaining status quo, preserving cultural heritage), and holisticism (very few specialisms), girls and boys were educated in a mostly informal setting (Adeyemi and Adeyinka 2002).

Some of these principles can be recognized in the discourses of the students and academics that we studied. For example, during the research sessions with the students from Yaoundé the participants presented a typical 'African' approach in contrast to the so-called 'Western' or 'European' understandings (see Chapters 4 and 5). The essence of the African perspective as worded by these participants is related to the worldview expressed in the traditional education described above. The rich heritage of African philosophy and theology presents, and elaborates on, this perspective. Therefore, we briefly mention the work of some African philosophers and theologians to offer a broader horizon for the interpretation of the discourses.

Fifty years ago, Mbiti gave the following explanation in his classic study, *African Religions and Philosophy*:

> It emerges clearly that for African peoples, this is a religious universe. Nature in the broadest sense of the word is not an empty impersonal object or phenomenon: it is filled with religious significance… The invisible world is symbolized or manifested by these visible and concrete objects of nature… The physical and the spiritual are but two dimensions of one and the same universe… To African peoples this religious universe is not an academic proposition: it is an empirical experience, which reaches its height in acts of worship.
>
> MBITI 1969, 56–57

This perspective implies a normative and ethical framework (Magesa 1997, 71–76) and has been incorporated into Christian theology in various ways

by many African theologians. Here we give some examples of theological expressions from the three major Christian traditions – Roman Catholic, Protestant (Reformed), and Pentecostal – that explain the relevance of this perspective for African Christianity.

Jean-Marc Éla (1936–2008), a Roman Catholic priest from Cameroon, testified of the great divide between what he called the Christianity of the missionaries and daily life in Africa. In his powerful book, *Ma foi d'Africain*, he advocates a Christian church and theology that is open to the African way of living and understanding life in order to free the gospel from a Christianity that has become too middle class (Éla 2001, 52). He describes this African way of living as a symbolic order: "The symbolic order in Africa concerns the whole drama of existence that expresses the relationship between human beings and the invisible. Any religion is itself a total language, a means of expression allowing people to grasp fully their unity with the entire world, and to communicate with it" (Éla 2001, 35). And therefore, he argues that sickness, for example,

> is not felt as a phenomenon that comes to strike a particular individual, but rather as a disturbance of social relationships. […] It makes sense that the techniques of healing cannot be separated from the symbolic universe from which they emerge. […] Thus the African universe of sickness is inseparable from the universe of spirits […].
>
> ÉLA 2001, 50–51

The second example is from the work of the Ghanaian Reformed theologian, Kwame Bediako (1945–2008). Bediako has contributed to a broad appreciation of what H.W. Turner called the 'Primal World-View' in Christian theology, stressing the continuities between the African traditional religions and the Christian faith (Cf. Chapter 6). Drawing on Turner, Bediako brings Western theology's typical emphasis on God's transcendence into dialogue with the primal world-view, a "unified cosmic system, essentially spiritual, in which the 'physical' acts as sacrament for 'spiritual' power" (Bediako 1995, 101).

Like Éla, Cephas Omenyo, a Ghanaian Reformed theologian with special interest in Pentecostal theology, underlines the differences between the theological presuppositions of the missionaries from Europe and the US and traditional African understandings. He further points to the decisive importance of the so-called African Initiated Churches, a distinctively African response to the Gospel (Omenyo 2002). He argues that although the Charismatic churches make similar positive connections with the primal worldview, they are also critical towards African Initiated Churches. The latter include all kinds of traditional

rituals, etc., which Charismatics usually label 'demonic'.[21] Ogbu Kalu's impressive *African Pentecostalism: An Introduction* (2008) offers a broader picture of the confluence of biblical, African, and missionary theology in African Pentecostalism. His analysis of the 'Prosperity Gospel' gives a nice example of how these threads are woven together, with a central role for wholeness:

> Abundant life among the Akan resonates with the Hebrew concept of shalom, denoting total wholeness that is physical, psychological, spiritual and social. For the African, it describes peace with God, the gods, ancestors, fellow human beings… and the natural world.
>
> KALU 2008, 261

These examples show that the need to relate the 'African approach' to the Christian faith of Africans (referred to by the students from Yaoundé, as well as the academics from Abidjan and Kinshasa), is part of the discourse of theological expressions and analysis from different denominational backgrounds. We will return to this specific African understanding in relation to the intercultural debate on science and faith in the last two chapters of this book.

4 Education and laïcité

In order to examine formal education in the colonial and postcolonial eras, we focus on the use of *laïcité* in francophone Africa. The research offers the opportunity to test the hypothesis that in a society in which *laïcité* dominates state education, schooling affects the individual's understanding of science and religion. The difference between Abidjan and Yaoundé, where educational systems are modelled according to the French ideas on *laïcité*, and Kinshasa, where this is not the case, is therefore important. *Laïcité* is directly related to developments in the French Republic in the nineteenth century and its efforts to separate state and church. When we examine the developments of the understanding of this concept in France's colonies, it helps us to see how education and science were introduced with a clear bias that created a problematic relation between traditional beliefs and Christian faith. Although the reception of *laïcité* in Africa was far more confused and ambiguous, in general, the normative element concerning the relation between education/science and Christian faith/religion survived.

21 See the comment of Martha during the second research session of the academics from Yaoundé, Chapter 4 and Chapter 5.

Below we will explain the most essential elements of the understanding of *laïcité* in France, and during the intercultural exchange in the French colonies as well as in the independent states of Ivory Coast and Cameroon. *Laïcité* did not have a similar impact in Congo because the Belgians maintained a more traditional outlook on education as we will elaborate in the last part of this section.

4.1 *Laïcité in France*

The concept of *laïcité* is closely related to modern French cultural identity as developed during the nineteenth century and is firmly rooted in revolutionary ideas and values. It expresses the notion of separation between state and religion(s) in France (Baubérot 2002). When *laïcité* became a regulative principle for state education in the second half of the nineteenth century it caused conflict, especially with the Roman Catholic Church (Lalouette 2005). Jules Ferry, minister of education and later prime minister, is the personification of the *laïcité* policy (Chadwick 1997). Some scientific developments were perceived as contradicting the Christian faith and the church opposed these developments, as well as the strict separation of science and faith. For example, the rise of prehistory and archaeology challenged the anti-modern stance of the Roman Catholic Church (Defrance-Jublot 2005).

Chadwick points to two important changes that led to a new situation after World War Two in which a different policy of *laïcité* was born. First, after the war the state's leading position in the field of education (both in quantity and quality) seemed to be completely accepted. Additionally, the Roman Catholic Church saw the positive side of *laïcité*, in that it would guarantee its independent position and freedom of expression. This new situation made a different policy of *laïcité* possible, which was then given concrete form in two laws concerning the co-payment of private education by the state and the implied further control and regulation of private education by the state. Chadwick writes: "Where *laïcité* in the 1880s meant social and national unity, *laïcité* in the Fifth Republic France has been increasingly defined in terms of flexibility, freedom of choice, and the recognition of difference (*laïcité – liberté*)" (1997, 53). Nevertheless, the disputes about the headscarf (*foulard*) in school from the late 1980s until at least 2004, when parliament passed a new bill, brought *laïcité* back to the forefront of the political debate (Chadwick 1997, 55; Lettinga 2011, 121–153). Chadwick perceives these recent developments as a regression of the interpretation of *laïcité* as it shows that a modus vivendi with Islam has not (yet) been reached in French society (1997, 51–58). However, these developments confirm the French understanding of *laïcité* as the strict separation of religion and state.

4.2 *Laïcité in France's African Colonies*

Starting with the conquest of Algiers in 1830, France gained a large territory in North- Western Africa, and after 1885 territories in sub-Saharan Africa were conquered systematically. French Africa was therefore a vast area that could not be administrated in the same way as France. Madeira asserts that initially the French colonial style, which is often perceived as an expression of assimilation politics, was not so different from the so-called *laissez-faire* politics of the British. In both cases, 'indirect rule' was a dominant practice (2005, 36). During the nineteenth century, education in the African territories under French governance was left to missionaries and decisions were made locally. Nevertheless, this education policy changed at the beginning of the twentieth century. From then on, missionary assistance was turned down and the African school system was to be conformed to the leading ideas of Jules Ferry (Madeira 2005, 43–44). However, this does not rule out Daughton's observation that at least until the First World War, "the so-called republican civilizing mission in the French empire was regularly carried out by the republic's sworn 'enemies' – Catholic religious workers" – because "few politicians or colonial lobbyists were willing to pay (or ask taxpayers to pay) for the programs they promised" (2006, 5–6). The registered mission schools were controlled by the colonial power. In the colonies of Roman Catholic countries, there was less freedom for Protestant missionaries and therefore the relation between Roman Catholic mission school and state was close. This was certainly the case in the Belgian Congo and officially only during the nineteenth century in the French territories. In the German colony Kamerun there was open competition, and Roman Catholics and Protestants from various backgrounds offered education as part of their mission work (Gallego and Woodberry 2010, 298–301). The situation was therefore quite different in Cameroon, because under German rule education had been mainly in local languages (Fouda 2005, 83–98). However, after World War I, the government of the biggest part of the country came into the hands of France. However, the diverse cultural influences on Cameroon's educational system did not prevent the French from implementing French as the official schooling language as stated in the decree of the 1st of October, 1920: 'L'enseignement de toute autre langue est interdit' (Ngonga 2010, 21–22). Free schools were therefore only permitted if they offered education in French (Dupraz 2013, 12). Compared to the British colonies where education was offered by missionary schools in local languages, the French system generally meant that fewer children went to school. The policy of state schools and education in French therefore made schooling elitist (Frankema 2012, 4).

The so-called 'civilizing mission', in which French language played a central role and which meant that Paris had more control over the education in the

colonies, provoked inequalities (Chafer 2001, 196). From the beginning of the twentieth century it was believed that assimilation was not an appropriate ideal; Africans had to evolve within their own cultures. Madeira argues that although education was adapted to the (French perspective on the) demands of the African situation, culturally it was not oriented towards indigenous life (2005, 43–45).[22] Alice Conklin explains how the 'adapted education' was coloured by patriarchal perceptions of Africans as big children or women. Conklin's research leads to the conclusion that the aim of education in the two spheres was completely distinct. Whereas French children were prepared for "*citoyenneté*," the education of the Africans was aimed at the formation of "*hommes utiles*" (Conklin 2002, 163–166; Dupraz 2013, 2). French education in the African colonies was therefore principally different from that in France, including the practices regarding *laïcité* (Quist 2001, 301–302).

This situation changed because of the consequences of the Second World War. Especially under the influence of the Brazzaville Conference of 1944, the schools in the African colonies received more money from Paris, and secondary education in particular was reinforced (Dupraz 2013, 13–15). The more flexible understanding of *laïcité* in France after World War II came closer to the practices in the colony where the separation between state education and church had never been so strict, especially now access to education in Africa was increased. In 1957 a university was founded in Dakar, and the famous I.F.A.N (Institut français d' Afrique noire) was affiliated to the university (Toure and Cisse 2008, 64–68). This university was not imposed by the French but was the fruit of indirect influence and the wish to make the education of the colony equal to that in the *métropole*, especially from the African members of Parliament in Paris. Education in the French colony was now (more or less) in line with the situation in France, but this also made the French colonies in Africa more dependent on France's education system. Therefore, in the context of the coming independence these reforms became increasingly ambivalent (Gamble 2010, 162).

4.3 *Laïcité in Postcolonial Ivory Coast and Cameroon*

The aim of the African members of the French Parliament to make education in the African colonial territories equal to that in France became the leading idea in Ivory Coast's education policy during the first decades of independence (Quist 2001, 302). The idea of *laïcité* survived independence as well and Ivory Coast became a secular state (Miran-Guyon 2013, 317). Here the Roman Catholic mission schools remained independent but counted on the support of

22 This sheds light on the quote of Éla above.

president Houphouët-Boigny and were able to build a large network of private schools throughout the country. This support allowed many French missionaries to work as teachers in Ivory Coast and reinforced France's cultural influence. Until the end of the eighties, the specific policy of Ivory Coast to integrate Catholic education into the state program, while respecting its confessional character, was the intention of both the state and the church's leadership. Financial problems, and political developments towards democratization, forced Catholic education to search for an alternative route for finances.

The consequences of the new situation were dramatic, especially in the rural areas where most of the Roman Catholic schools had to close down (Lanoue 2003). In this case it was democratization and the loss of its privileged position, rather than a strict application of *laïcité*, that led to the diminish of Roman Catholic education. Nevertheless, *laïcité* was an important argument used by the Muslim majority to oppose the partial support of Roman Catholic education by the Ivorian state. Houphouët-Boigny had also favoured certain Muslim organizations (with money for pilgrimages for instance) in order to balance the political situation, but had not done the same in the field of education. The smaller favours for the Muslims kept them quiet for quite a long period of time (Savadogo 2013), but this changed during the nineties and onwards, when they claimed equal rights and finances for Muslim education (Miran-Guyon 2013, 321–326). By then, however, the 'golden age' of financed confessional education had gone. The policy of *laïcité* during the long governance of Houphouët-Boigny had covered the practice of giving privileges towards the education of the president's peer group and had safeguarded the continuity of French cultural influence. The network of cultural and educational relations France constructed with its former colonies in Africa confirms that this policy was actively supported by Paris (Manière 2010). Although Houphouët-Boigny's education policy appears to be a form of clientelism, in practice it was not very different from the interpretation of *laïcité* under colonial rule. In the education policy of *laïcité* during colonization, Roman Catholic education was favoured, often indirectly and against the explicit political preference of Paris, to safeguard education in French language and culture. *Laïcité* had therefore been introduced and made fashionable by politico-cultural and financial interests. When this practice was continued after independence, *laïcité* was no longer an instrument to safeguard the separation of state and religion but was used as a justification to manage the (politico-cultural) interests of those in power. In this conception, however, there is also place for what could be called the religious 'neutrality' of the state, as evident in its attempts to balance favours to different religious groups.

After independence, Cameroon's situation continued to be somewhat different as education became bilingual (Ngonga 2010). The difference between

public and private education in the francophone and anglophone regions was annihilated. In both parts of the country, 80% of the pupils go to public schools (Ngonga 2010, 84–91). Charles Manga Fombad argues that the 1990s marks a new period in the postcolonial era, because Cameroon moved towards a more democratic system, as was also the case in Ivory Coast (2015, 25–28). The first years of this period were characterized by political and social unrest, in which language barriers, and especially ethnic divisions, revealed new dimensions of the political landscape. The Roman Catholic sector of society, nearly 40% of the population, represented various political stances. The actual laws on the neutrality of the state formulated during the nineties were mostly applied in a more pragmatic than a principled way (Fombad 2015, 35). The economic crises caused the impoverished state to search for finances for education, health care, etc., and churches and religious organizations were willing to contribute in these areas. However, the position of the churches, especially the Roman Catholic Church, became more antagonistic toward Biya's government. Although he was first hailed as a defender of Christian values, the divergent perspectives on the Catholic schools created a tense situation between state and church. The Roman Catholic Church maintained this critical attitude during the nineties and onwards, addressing the abuse of ethnic tensions for political reasons, corruption and the like (Konings 2007).

We conclude that the colonial use of *laïcité* was strengthened in postcolonial situations. Politico-cultural interests, often regulated by a substantial financial component, determine the understanding of *laïcité* (Fouda 2012, 71–80). In particular, the 'pragmatic' use of *laïcité* in the context of financial crisis shows the importance of two elements: the growing importance of ethnic and cultural belonging and the rise of what is called the NGO-isation of the field of schooling as a consequence of the (partial) liberalization of the education market (Dilger and Schulz 2013, 370). Nevertheless, the use of *laïcité* for principled reasons defending the opposition between (higher) education or science and religion still plays a major role after independence. The biased understanding of this relation that is presented by *laïcité* can be easily found among scientists. During the preparation of th field research, when we asked Christian university professors how they understood the science and religion question, some defended a clear separation between education or science and their faith. This is not, however, a common stance among the Christian academics we talked with during the orientation phase of our research, as is confirmed by the discourses we present in the next chapters. Nevertheless, professors who work at a state university in Cameroon or Ivory Coast have to deal with certain limitations when it comes to expressing their faith at university.

Finally, intimately related to the idea of *laïcité* is the understanding of science as the highest and ideal form of knowledge (because it is neutral and

indisputable) that is widely accepted in the North Atlantic world. Taede Smedes uses the term 'cultural scientism' to indicate the nearly absolute status of scientific knowledge in the Western worldview (Smedes 2008, 241–242). This understanding of science was never expressed by the participants of our research. On the contrary, in several group sessions they mentioned the ambiguous appreciation of science in their societies, Take medical knowledge for example, although people visit doctors and undergo medical treatments, they also look for treatment through traditional healers and priests or pastors. As is discussed in Chapter 5, they are not convinced that medicine alone will cure.

4.4 *Education Outside the Influence of laïcité: The Democratic Republic of Congo*

As a former *Belgian* colony, the DRC has a particular status in francophone Africa. Barbara Yates mentions the 'Big Three' that dominated Belgian colonialism: the Roman Catholic Church, the colonial administration, and the large companies. Schooling was attributed to the first, and at independence in 1960, 77% of the pupils attended Roman Catholic, and 19% Protestant, institutions. Thus, education was to a large extent in the hands of missionaries, and they handed over their worldviews and ideas (Yates 1982). This monopoly of the churches was briefly interrupted by Mobutu's regime, which nationalized the mission schools in 1974. However, without the churches Mobutu was not able to avoid the collapse of the system, and in 1977 the regime reconvened with the churches and the Muslim organizations to establish national education in five networks: the 'non- conventionized' network directed by the state, and the Roman Catholic, the Protestant, the Kimbanguist (an indigenous church), and the Muslim directed by the faith communities. This system still exists, and most children attend religious schools, with 50% of pupils in Roman Catholic schools. During the Mobutu government, the state continued to retreat from education and dropped the salaries of the professors. By the end of the twentieth century, the system could be called 'privatized' (Titeca and De Herdt 2011, 223; Titeca et al. 2013, 120–122). Schooling increased after 2002 under Joseph Kabila, but in 2012 the website of Global partnership for education mentions that it is "one of the countries with the largest number of out-of-school children."[23] School fees are one of the major barriers to education, and actually "the state has lost its position as final regulatory authority; instead, this role is negotiated between various actors rather than being claimed by a supreme authority (the state)" (Titeca and De Herdt 2011, 230). The DRC seems to suffer

23 See http://www.globalpartnership.org/country/democratic-republic-of-congo, accessed on 30 October 2018.

from an even stronger NGO-isation of education than Cameroon, because nobody has the final power to decide. This short overview of education in the DRC makes it clear that the state has never been such a dominant player in the field of education that it could impose secular education (*laïcité*) on a large scale. In view of the country's situation and the government's decreasing involvement, it is not likely that this will be the case in the near future (Titeca and De Herdt 2011). If children are willing and able to go to school, most will receive education at religious schools. Chapter 5 will reveal the impact of this context on the researched discourses about science and faith from Kinshasa.

5 Universities

The universities in francophone Africa are nearly all postcolonial institutions that have been founded with the above-mentioned desire to raise the level of education in Africa to the level of that in the *métropole*. We have already mentioned some famous state universities in Ivory Coast and Cameroon, and we could add the Université de Kinshasa as an example in the DRC. Although these universities have interesting local academic programs, as well as exchanges with other universities in the world, they struggle with some major problems. Niang points out that political instability and wars in the regions do not create an adequate climate for scientific research (2005). Also, failing national governments and university authorities that neglect the importance of scientific development and research appear to be an obstacle. Even academics of higher rank often see research as "a simple occasional instrument of self-promotion" rather than as a vocation or a domain of scientific self-actualisation, which creates "une culture de non-recherche" (Niang 2005, 81–82). The author proposes improvements to the academic system, for example better salaries for the professors and real freedom of speech on all levels, as well as a democratic and transparent handling of the funding destined for research (Niang 2005, 93–94). Niang's analysis corresponds to what we learned from our research. The unrest at the Cocody campuses in Abidjan in 2015 was also related to a lack of transparency and the salaries of the professors. Furthermore, in the sessions with students in Kinshasa and Yaoundé it appeared that a course of study at university, including a Master of Research degree, is mainly perceived as being favourable for your career rather than motivated by a desire for knowledge or by science as such.[24] This reveals that not only the

24 See the second research session with students in Kinshasa and third session with students from Yaoundé.

staff but also the students are prejudiced by the failures of the institutions, and explains some of the motivations behind the long story of student opposition and revolt told by Pascal Bianchini (2016). The history of the student movement in francophone Africa is therefore highly political and the situation in Cameroon in the 1990s is a good example of this. The struggle for participation and transparency, and against the authoritarian behaviour of the institution's leadership. is linked to the political fight outside. These characteristics of the university leadership also make it understandable that they use *laïcité* for their own benefit. In some of our interviews with professors and students during our first orientation trip in January 2015, they talked about the selective use of *laïcité* by the leadership of the university. This is completely in line with its application on the national level, in both colonial and postcolonial times.

6 Conclusion

This overview of the intercultural dynamics in Cameroon, the DRC, and Ivory Coast indicates that the cultural diversity within these countries, and the role of French (and partly English) to make national communication and national identity possible, stimulate an ongoing intercultural exchange. However, the political manipulations of this diversity, as performed by the colonial and postcolonial administrations, provoke unrest, conflicts, and even wars. Formal education is one of the favourite domains for culture politics. In this domain the contribution from outside, especially from the North Atlantic world, has always been very important. Education has been connected to religion, and especially the churches, from the arrival of the first missionaries to the strong NGO-isation of today. However, with secular state education the French introduced another tradition. *Laïcité* has been a useful instrument for culture politics and the state universities are still places where the idea of *laïcité* has a certain impact. In these postcolonial institutions the political use of *laïcité* has survived, but it is also understood as a principle for separating science and scientific education from religious beliefs.

CHAPTER 4

Creating an Intercultural Space. The Roles of 'African' and 'Western' in the Discourses About Science and Faith in Yaoundé, Abidjan, and Kinshasa

The start of the field research felt like an adventure. Field research in the area of science and faith is scarce, and we don't know of any examples from Africa. When we started the field research in 2015, we had no knowledge of the use of Group Model Building (GMB) in theological research, nor of its application to people groups on the African continent.[1] It goes without saying that we were even more excited about what the participants would communicate to us. As explained in Chapter 3, in Abidjan and Yaoundé, the national education programs are dominated by the typical French idea of *laïcité*. It seemed realistic to expect that this principle that creates a sharp distinction between science and faith might have shaped the participants' understandings. With these and many other thoughts in mind we arrived in Yaoundé at the end of May 2015 and started the first round of research. During two long GMB-sessions we recorded the deliberations of two groups: one composed of students and the other of academics. These sessions were held at the SIL centre on the green hills of the Mvan neighbourhood in the South-East of the city.[2] Heaven's rains were abundant, and a power cut briefly interrupted our sessions. The rain, however, did not stop the participants from coming to the research meetings. In the case of the students we sat together for three and a half hours in order to build a model. With the academics we had a smaller group and the session was somewhat shorter. After the sessions we were all exhausted and enjoyed a nice local meal together. Despite our exhaustion the debates even continued during the meal, and we were struck by the engagement and interest that the participants demonstrated.

1 Initially, we relied on Arensbergen e.a. 2016 which does not mention this use of GMB in Africa. However, thanks to our colleague Thandi Soko – de Jong, we recently discovered that GMB was applied to analyse Health Systems Resilience in Ivory Coast, Nigeria and South Africa. See https://rebuildconsortium.com/media/1226/hsr_scripts-for-group-model-building_october-2015.pdf (accessed 22 October 2018).

2 SIL is an institute for language development and translation. See https://www.sil.org/program/idelta-fr accessed on 22 October 2018.

In this and the next chapter we will tell the story of the research sessions in Yaoundé, Abidjan, and Kinshasa, and will present and analyse the participants' discourses about science and faith. GMB helped us to reconstruct and analyse the discourses with the help of the participants. The text of these chapters is based on the building and analysis of the models construed and developed by the participants. These models can be found in the annexes. We pay special attention to the way science and faith are approached in the discourses. In the debate held by the student group from Yaoundé, the cultural difference between Africa and Europe (or the West) appeared to play a prominent role, and we also recognized this feature in the discourses of the other groups. In comparison to Western literature on science and faith, this intercultural approach is a remarkable characteristic of the African perspective (see Chapter 7). The specific way in which the Yaoundé student group dealt with this cultural difference helped us to formulate a hypothesis that focused the analysis of all the group discourses presented in this chapter. As we argue below, the two main tendencies related to the use of 'African' and 'Western' among the students from Yaoundé produced a dynamic that functions as a tool for discussing the questions concerning science and religion. Due to the intentional use of this dynamic, we label this way of handling the discussion 'intercultural framing'; a term we explain below.

When we touch on the importance of the dynamics within-group, we are aware that we are including elements that are not always tangible. For example, the varying ambience in which the debates took place are not easy to describe; sometimes very lively, but in some groups also very cautious and hesitant; at times dynamic and other times dull and repetitive; and occasionally sharp, but now and then confused. We hope we can share something of these dynamics in these chapters.

In the first part of the chapter we present an analysis of the use of 'African' and 'Western' in the different groups. We begin with the discourse of the student group from Yaoundé and analyse the procedure we just labelled 'intercultural framing'. Afterwards, we analyse the ways in which 'African' and 'Western' are used in the other groups to determine whether a similar dynamic can also be identified in these discussions. This does not appear to be the case in all groups, although cultural difference is a major theme in every group. Since our analysis of the discourses in the first part of this chapter is much longer than in the other parts, it is divided into subsections. In the second part of this chapter we look more specifically at the relationship between the conceptions of culture used in the different groups and the contexts in which they are used. In the final part we offer a comparison of the groups to identify the unique and shared aspects of the (inter)cultural framing of science and faith among the

groups. At the end of this chapter there is a table of comparison, which provides an overview of the six groups. In the next chapter we will investigate how the cultural understandings affects the way science and faith are understood.

1 Part 1: The Use of 'African' and 'Western' in the Different Groups

We start with the discourses from Yaoundé, which are described more extensively than those from the other cities. There are two main reasons for taking the Yaoundé case as the point of departure and primary reference. In the first place, the participation of the student group from this city was the most stable of all the groups. During the three research sessions the group of participants remained constant, which was not the case anywhere else (see Chapter 2). A second reason for focusing on the Yaoundé discourses is that although cultural difference (especially between 'African' and 'Western') was an important theme in all the groups, it nowhere led to such controversies as was the case in both Yaoundé groups.

Subsequently, we turn to the discourses from Abidjan, where the use of 'African' and 'Western' played a different role, mainly due to the specific political context of Ivory Coast. Finally, we present the critical case of the discourses from Kinshasa, which does not share the colonial heritage of *laïcité* as the other contexts do.[3]

1.1 *Yaoundé*

Before focusing on the discourses of the groups in Yaoundé, we remind you that Cameroon is highly diverse culturally (see Chapter 3), and this is reflected in the research population. For example, students Brice and Junior are from different people groups in the so called 'Far North' of the country, near lake Chad. Others, such as Enow and Ayuk, are from the coastal area, while Esek and Patrick are from the central region. Among the participants there is also a sizeable group from West Cameroon who have a Bamileke background including Janvier, Joaddan, and Loïc from the student group and Martha from the academic group. We will return to the topic of cultural diversity in the next paragraph.

3 For more on the role of the discourse from Kinshasa as a critical case, see Chapters 2 and 3.

1.1.1 'African' in the Student Discourse

From the very start of the discussion among the Yaoundé students, the variable termed 'African culture' played an important role.[4] The discussion of themes related to the key concepts 'Bible' and 'African culture' took up most of the GMB session, and was also a leading topic in the two focus group sessions. The continuing debate about this point indicated that it was not completely resolved. In the group, we distinguish two distinct subgroups and what could be called 'the rest' – a far less outspoken group that nevertheless engages when a decision is required. The first subgroup defends a mainly harmonious and constructive relationship between the Bible and African culture. Brice, one of the most prominent defenders of this view, is a remarkably tall and elegantly dressed student of education from a Protestant-evangelical background. When the group underlines a positive contribution from the Bible towards African culture, he argues that the contribution is primarily in the opposite sense: "My African culture, my African identity improves my understanding and contextualization of the Bible. When I am more anchored in my culture […] I have a comprehensive, profound reading of the Bible."[5] The use of 'African' in relation to culture and even identity is remarkable because Brice clearly refers to a particular culture in the Far North of Cameroon.

Patrick, an eloquent linguist from a Protestant-evangelical background, supports Brice's perspective to a certain extent. He claims that Bible reading always happens from a particular cultural context and argues that early African church fathers like Origen and Saint Augustine were "anchored in their culture" as well.[6] Patrick is the only one in the student group from Yaoundé that makes explicit references to the Pan-Africanist stance.[7] Among the academics

4 See figure YS2 in the Annexes to see the model built by the students from Yaoundé. On the right-hand side of the model 'African culture' received a prominent place. Most of the discussions concentrated on the relationship between 'African culture' and 'Bible' and are represented by the arrows between these two concepts. Initially, there was a group among the students (especially Enow) that defended a negative arrow between 'African culture' and 'Bible', but eventually they dropped this point.

5 For the references to the quotes, we use the Atlas-ti indications: P followed by a number between 1 and 19 refers to the transcription of a specific session, the next number refers to a specific quote; xxx refers to a inaudible word. P5, 175 : "[…] Ça veut dire que ma culture africaine, mon identité d'africain me permet mieux d'appréhender et de contextualiser la Bible. Donc quand je suis ancré dans ma culture, quand je maîtrise bien ma culture, j'ai une lecture assez euh, euh, euh, compréhensive, profonde de la Bible. Donc moi je veux plutôt renverser la flèche en partant de la culture africaine vers la Bible."

6 P5, 210–212 : "[…]Or, si vous regardez nos pères, les, les, les euh Saint Augustin, Origène voilà Origène l'Egyptien, vous verrez que naturellement, dans leur théologie, ces gars sont ancrés dans leur culture."

7 According to http://www.brittanica.com (accessed on 15.06.2017) Pan-Africanism is "the idea that peoples of African descent have common interests and should be unified. Historically, Pan-Africanism has often taken the shape of a political or cultural movement."

from Abidjan the Pan-Africanist arguments play a more substantial role which we will elaborate on below. Although Patrick does not identify himself as a Pan-Africanist, he is clearly interested in this intellectual position and thinks that it would be possible to reconcile the Pan-Africanist and Christian understandings of science.[8]

This does not imply that these participants deny the difficulties of reconciling African cultures and the Biblical perspective. In fact, they mention the incompatibilities between their cultures and some basic Christian understandings. Nevertheless, they underline the positive contribution of African cultures to understanding the Bible. In support of this, Junior, a Lutheran law student, highlights the fact that faith in God and sacrifices in African cultures positively predispose most Africans to the Christian faith.[9]

This appreciation of their African cultures includes a positive understanding of what they call traditional knowledge and science. Brice talks about the science and knowledge promoted among his people: "We are very good at physiotherapy. There are professional therapists that give you treatment when you have a crushed bone. They use different plants and the massages will bring together the parts of the bone. Within some weeks you are on your feet again." It is very interesting that before speaking about this science, Brice mentions that in his culture it is acceptable for Christians to make use of traditional practices when they do no harm to others. For example, according to him, going to a marabout[10] is not considered a problem for Christians if they are in need of protection or natural medicine.[11] Junior provides another example of

8 P19, 39 : "[…] Et à ce niveau cela me semble vrai parce que ça permet de concilier à la fois la condition et l'intellectuel panafricain ou panafricaniste, de l'intellectuel chrétien vis-à-vis de la science, c'est-à-dire que ça me permet de voir peut-être une possible opposition des intellectuels qui sont attachés à la fois à leur culture, à leur foi et prennent la science pour se hisser et influencer la société. Voilà la position qui se voit à partir de ce modèle. […]."

9 P13, 177 : "[…] La majorité, je veux dire (xxx) toutes les cultures africaines en général reconnaissent quand même qu'il y a un Dieu qui existe, il y a un Dieu qui existe, un être au-dessus de tout, contrairement à d'autres qui pensent que non, ce Dieu là n'existe pas, l'homme lui-même peut être son Dieu. Ça, ça prédispose les Africains à croire."

10 Marabout, a word used in Muslim countries in Africa to indicate a (Muslim) traditional healer. The North of Cameroon is also prominently Muslim, so it is understandable that Brice uses this term.

11 P16, 67 : "[…] Il y a ce qu'on appelle chez nous la notion du mal. Quand ce que tu fais, la pratique traditionnelle que tu peux faire ne fait de mal à quelqu'un d'autre, il n'y a pas de problème. Ça veut dire que tu peux de, tu peux t'appuyer sur la coutume, la tradition donc pour te protéger et du moment où tu ne fais pas de mal à quelqu'un, il n'y a pas vraiment de problème. […]Tu peux trouver quelqu'un qui est chrétien mais s'il part chez le marabout pas pour tuer quelqu'un ou pas pour faire du mal à quelqu'un, c'est pour se protéger, il dit que non bon j'ai utilisé tel médicament ça vient de la nature. Du moment où c'est pas pour tuer quelqu'un, il n'y a pas il n'y a pas de problème. Et en parlant de science même

this positive view of traditional knowledge when he lauds the medical knowledge of his people, and points to the mathematical insights that are acquired and transmitted by playing cultural games.[12]

The second subgroup stresses the non-Christian character of traditional cultures slightly more. This does not mean that they reject traditional culture completely, but to them a critical approach seems the most sensible for Christians.[13] Loïc, a student of health sciences, and Enow, the Baptist theologian, are actively involved in the debate. They successfully protest against a positive role of culture in the reception of the Bible as proposed by Brice. In fact, Enow argues in the opposite direction to Brice: "I would say that the better I know the Bible, the more I comprehend my culture."[14] Indeed, Loïc goes as far as to argue that "our [African] cultures don't give us a good understanding of the Bible."[15] These voices become prominent in the group.[16] The dominance of the second subgroup, as expressed in the model, and supported by what we call 'the rest', shows the doubts of the majority regarding what is argued by those who advocate a more positive perspective concerning the contribution of African culture to Christian faith. Most of the participants do not feel comfortable with

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rapidement, chez nous il y a nous sommes très forts en kinésithérapie. Il y a des masseurs euh professionnels où, tu peux avoir ton… os broyé, il y a des plantes là qu'ils mélangent et ils massent et les bouts des… os viennent se converger ensemble et ça prend en quelques semaines tu es tu es debout. Donc euh… même quand on se convertit chez nous, bon c'est pas mon cas hein, il y a des choses que je ne fais plus. Mais quand tu pars au village, les gens partent à l'église. Bon ils font leurs pratiques du moment où ça ne fait pas de mal à quelqu'un, il n'a pas de problème."

12 P16, 124 : "Oui, il y a des gens spécialisés dans la médecine (rires et murmures) et il n'y a pas que ça, l'utilisation des écorces pour guérir certaines maladies, c'est tellement poussé. […] Ceux du grand nord savent que, il y a même beaucoup de mes frères qui font les mathématiques en langue Toupouri. Parce qu'il y a les jeux, certains jeux chez nous, c'est vraiment les jeux hautement euh mathématiques."

13 P13, 145, Enow : "[…]Voilà, et je voudrais parce que c'est un des thèmes vraiment importants qui a préoccupé les théologies africaines dans ces dernières années. Bon, de montrer que bon notre culture n'était pas forcément, euh totalement en contradiction avec la foi. […]."

14 P5, 180 : "Moi je disais que mieux je connais la Bible, plus je comprends ma culture, plus je m'insère dans ma culture."

15 P5, 195 : "[…]Nos cultures ne nous donnent pas d'avoir une bonne compréhension de la Bible. […]."

16 This is visualized in the model, see figure YS2. The arrow between 'African culture' and 'Bible' that is put into place after Brice's proposal does not fit into a longer feedback-loop and its meaning is therefore very limited. In contrast, the arrows between 'Bible' and 'African culture' are dominant elements in the two feedback-loops of the cluster; especially in relation to the variable 'domain of study'.

this understanding. Finally, this viewpoint is given a theological foundation. In the final session in November 2016, Enow makes an interesting contribution by stating that the Bible criticizes *all* cultures. Thus, Enow argues that what was visualized in the model about the relationship between the Bible and African cultures, is also true for European cultures.[17]

1.1.2 Creating an Intercultural Space

The debate about culture in the student group is strongly focused on the African situation and African cultures. However, the African context and traditions are not perceived as the only relevant cultural forces. While focusing on the African situation, European or Western culture is also addressed, although not always explicitly. In the first session, Western culture already has an interesting role; during this session, the students agree that science can contribute to the flourishing of faith, but they also recognize a factor that hinders this contribution.[18] The so called 'common use of science' often provokes problems for faith. In the next chapter we will investigate this more closely. This unease with science appears to be a counterpart to the unease with African culture when it comes to faith. In the second session, the participants relate the problematic aspect of science in relation to faith to its Western or colonial background. In this context, the expression 'white man' is used. For example, Esek, a Roman Catholic student of urban planning, uses the expression "who lives as a white man," to distinguish between an academically schooled person with a good job in Yaoundé, and people of the same ethnicity in the villages.[19] This implies a

17 P19, 31 : '[…] Je veux dire que ce n'est pas seulement propre à l'Afrique, même la Bible a aussi frontalement attaqué les cultures des autres peuples, de tout le monde, même les Juifs, même les Européens, pour dire que ça ne doit pas nous scandaliser qu'on dise que le message qui est prôné d'une certaine façon amène les hommes à vivre justement dans une certaine 'libertique(?)' qui les pousse à s'affranchir justement et qui créé une tension avec leur culture originelle. Bon je ne vois pas pourquoi ça changerait, ce circuit à mon avis me parait tout à fait euh, qui tient, logique, et il tient vraiment, il y a ce rapport conflictuel entre la bible et la culture africaine qui peut être positif dans un sens que on s'identifie mieux à certaines pratiques et tout. […]'.

18 See figure YS2. On the left-hand side of the model the variable 'domain of study' is linked to 'flourishing of faith' by four arrows that create two connections between these variables. It is the variable 'common use of science' that indicates the complicating factor when it comes to science's contribution to the flourishing of faith.

19 P16, 22 : 'Bon la connaissance et la science, euh je crois que enfin ce que j'ai observé c'est que euh quand quelqu'un a beaucoup étudié, quand quelqu'un a beaucoup étudié, on ne on sait presque d'emblée que les choses qui concernent la culture là, il a tendance à négliger ça, il ne s'intéresse pas trop à ça, donc on ne va lui parler de ça que si euh il vient lui-même chercher, c'est si lui-même il demande, je sais pas, si quelqu'un qui a un poste ici à

very close relation between science and the Western world. Patrick confirms this use of 'white' when he traces the expression 'white wizard' back to its use by his people (the Tuki from the centre of the Country) to express their respect for westerners and their science.[20] Janvier is more explicit about the unease that is associated with science. He explains that although his people, the Bamileke, have a positive understanding of education and science, there is also a degree of distrust because of the link between science and European colonization.[21] This link between unease about science and European usurpation is confirmed by Brice during the last research session. He argues that the distrust of science in (African) culture is caused by the idea that science is something of 'les blancs' (the white people). In his understanding, this distrust neglects the proper African contributions to science *and* faith.[22] Furthermore, Loïc objects to the distinction between 'African culture' and 'science' that the group has pinned down in the model. He argues that 'science' is also culturally

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Yaoundé rentre au village et qui demande peut être de la protection (xxx), c'est là où les villageois vont vraiment s'acquérir, mais si il ne demande pas, en général, on le voit comme quelqu'un qui n'est plus vraiment attaché à son village, qui qui vit comme les blancs (xxx), donc on ne l'identifie plus vraiment à tellement au peuple, sauf si il demande quelque chose, c'est là où maintenant on va l'orienter.

20 P16, 50 : "[…] la culture Tuki encourage, encourage l'école parce que euh euh cette culture n'est pas un peu comme celle de l'Ouest (xxx) mais c'est une culture qui est proche quand même, qui a eu des contacts avec les blancs. Or le Tuki a vu le blanc comme étant un modèle parce que le blanc il connaissait tout, *le sorcier blanc* c'est comme cela qu'on l'appelait chez nous. C'est un sorcier et il connait beaucoup de choses du point de vue intellectuel, du point de vue, du point de vue, du point de vue et naturellement on dit on encourage les enfants de chez à devenir comme des blancs, à connaitre l'école et connaitre l'école c'est connaitre la science. Donc la culture Tuki n'est pas antinomique euh n'est pas antinomique à la science."

21 P16, 42 : "[…]L'éducation au départ dans ma tradition était une chose dont il fallait se méfier. Il faut aussi dire que l'Ouest du Cameroun c'est à l'intérieur du pays. Et l'Ouest fait partie des régions du pays qui ont été trop tard en relation avec la science même venue de l'occident. Bon au départ (xxx) je le dis parce qu'il y a des études qui en parlent. L'Ouest aussi s'est méfié pendant longtemps de l'occident parce que c'est l'un des peuples qui a subi un peu les affres de la colonisation. […]."

22 P19, 51 : "[…] Donc je crois que le problème c'est que on fait souvent cette opposition entre la science perçue comme étant la chose des blancs. C'est comme s'ils sont venus avec, alors que nous on avait déjà notre science à ce niveau. Donc en parlant du concept de la culture, dans la culture africaine il y a la foi et la science. C'est vrai que je n'ai pas relevé les éléments de la foi. Je prends aussi le concept de la foi, l'intervenant d'hier, le docteur Yaoudam a évoqué cela. Que même dans notre tradition, il y a l'idée d'un être suprême et à travers les mythes et les contes, on nous ramène aussi vers cette idée de cet être suprême, donc la culture africaine en elle-même c'est un tout, ça inclut la science et la foi."

linked and should therefore be called 'European science' while 'African culture' has its own science.[23] It follows a certain logic that those who advocated for a more harmonious understanding of African culture and the Bible (Brice, Loïc, Patrick, and others) are also those who view the Western character of science as problematic.

However, this cultural understanding of science resounds more broadly in the group. While faith is regarded as deeply embedded in culture, science is also believed to be strongly linked to culture. The group generally agrees that although science often presents itself as culturally neutral (at university for example), it is profoundly European and colonial. By focusing on African cultures and traditions and addressing the Western (colonial) character of science, the two major themes discussed in the debate (faith and science) are placed in the intercultural space in which the participants live. Both African traditions and cultures, and Western (post-) colonial influences are brought together here. Finally, we note that the Christian faith and the Bible also influence this space; their specific role is studied in the third part of this chapter.

1.1.3 The Academics from Yaoundé on 'African' and 'Western'

Although a similar process to that of the students can be recognized in the debates of the academics from Yaoundé, this only came to light in the second research session. The first session with the Yaoundé academics was quite different to that of the students. Instead of two opposing groups, there is a natural leader, Martha, who gently guides the group, particularly during the process of model building. She is a professor in urban studies, with a Pentecostal background and a lot of administrative experience at the university. Lamentably, there was much more variance in participation here and the composition of the group changed over time. Thankfully, slightly more academics participated in the focus group sessions.

Nevertheless, a certain degree of continuity was guaranteed thanks to the continued participation of three persons who also took part in the first session.

23 P19, 77 : "[…] Parce que je ne conçois pas euh le terme, on dit culture africaine, mais quand on veut parler de culture européenne on dit la science. (murmure) Parce qu'en réalité, ce qu'on appelle science là, c'est la culture européenne et ce qu'on appelle culture africaine, c'est notre science africaine. Et moi je pense que la mort de la science africaine ou bien euh, (murmure) du moins je reprends un peu un terme qui a été utilisé, c'est une réalité parce que si aujourd'hui un tradipraticien ou bien un parent qui connait bien traiter, qui connait bien masser, on ne peut plus avoir de kinésie thérapeute chez nous, dans notre culture, c'est parce que quelque part les blancs sont venus avec la foi. […]."

In general, the group was characterized by a strong presence of natural scientists (Physics, Chemistry, and Medicine).

The content of the first research session with the academics goes in a different direction to the development in the student group in that no substantial mention of African or European culture is made. In the next chapter we will investigate this group's very positive understanding of the contribution of science to faith. 'Science as a place of revelation' is probably the most affirmative qualification of science used in the first session. However, in the second session, a cultural analysis appears inevitable for the group. Starting with the case of the doctor at the hospital, who prays with her patients when the medical diagnosis does not lead to a clear answer (see Chapter 2 for an explanation of the function of this case in the second research session), several affirmative remarks are made about African culture.[24] In addition to approving this holistic approach, Tabot, a Protestant-evangelical mathematician, approves of the 'traditional science' of using plants to treat illnesses.[25] However, Félix, a professor of medicine, also talks about the clash between traditional African science and what he calls ("excusez-moi") "Western science." He says that while the latter can be verified and is taught in school, the former cannot and is passed on from person to person. When asked to explain, Félix says that some of the traditional understanding about plants and their medical uses appears to be correct, so there is some accurate medical knowledge in traditional cultural ways. However, he says that the knowledge has not been formally verified but is simply accepted and passed on by tradition.[26] Ayuk, a young computer

24 See Chapter 2 for a further explanation regarding the use of the doctor's case in the second research session.

25 P15, 220. Tabot argues : "[…] Comment est-ce que nous on fait dans notre tradition quand quelqu'un est peut être malade ? Je crois que nous, on se réfère euh aux plantes, aux plantes, c'est pourquoi il y a peut-être même certaines maladies comme par exemple la typhoïde. Tout le monde au quartier a tendance à dire que non, vraiment à l'hôpital là, on ne trouve pas vraiment une bonne solution. Il faut que tu ailles te faire traiter avec les, les plantes d'habitudes pour la typhoïde, donc de plus en plus dans notre tradition, je crois que peut-être ça peut même être général, donc on a tendance beaucoup plus à utiliser les plantes de prime à bord. Et puis bon avec la médecine maintenant, bon les choses aussi ont peut-être se sont améliorées pour certaines maladies ; mais d'autres aussi parce qu'il y a beaucoup de maladies que certaines plantes donnent quand même de solutions acceptables ou même des guérisons si je peux le dire ainsi." See also P15, 124–126.

26 P15, 228 : "[…] Il y a une plante ici au Cameroun avec un coté vert rouge, (murmures) on dit que ça donne du sang. Bon quelque part c'est une vérité pourquoi, parce qu'effectivement quand on a pris cette plante, on a fait des études au laboratoire on s'est rendu compte que cette plante contient du fer n'est-ce pas, mais mais mais la teneur en fer est maximale pendant la saison pluvieuse, pendant la saison sèche il y a aucun fer dedans. Vous

scientist from Douala who did not participate in the first research session, fiercely opposes the way Félix compares African and Western science. He believes that one cannot talk about Western science without mentioning colonisation, which prevented the development of African science. As a result, in modern day Cameroon many people have an ambivalent appreciation of Western science. He therefore argues that traditional knowledge (he prefers the word 'savoir' instead of 'science') should be held in higher regard, taking it more seriously than Félix does.[27] The controversy becomes even more pronounced when Martha joins in. She has a very different understanding, believing that a lot of traditional knowledge and rites are directly opposed to Christian faith. "The values that are transmitted through traditional rites can absolutely not contribute to the flourishing of Christian faith."[28] She argues that these rites are sometimes the fruit of colonial times, (as is the case for traditional funerals and the cult of the skull) making them less 'traditional' than most people suppose, and, in her understanding, profoundly satanic.[29]

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comprenez ça c'est un truc, ça c'est un truc ; donc c'est pour dire que la science africaine quelque part elle est comme ça. (murmures) Il y a des choses vraies, il y a des choses qui quand on entre en profondeur ce n'est pas tellement ça. Je prends l'exemple d'autres plantes là, on a fait cette étude, effectivement les gens quand ils sont anémiés, ils prennent cela ils boivent, mais le problème c'est que, comme c'est, comme c'est aveugle on ne sait pas, bon celui qui prend en saison pluvieuse par exemple, (murmures) il se sent, ça va marcher, il va peut-être en faire, il va faire de ça une théorie, ce qui n'est pas vrai. […]donc c'est pour dire que la science africaine elle est, dans notre tradition, c'est des choses qui ne sont pas vérifiables ils n'ont pas vérifié, c'est des assertions qu'on fait tout simplement."

27 P15, 230 : "[…] Je suis pas du tout d'accord ! (rires) pas du tout ! Pas du tout ! Pas du tout ! Pas du tout d'accord […] on ne peut pas envisager la science venue dans un contexte de colonisation avec les traditions africaines sans évoquer la colonisation. Parce que la colonisation est venue nier un savoir africain, dire vous ne savez rien, euh et on vous civilise, c'est-à-dire qu'on vous civilise, on vous apprend à porter nos vêtements, parler notre langue, et raisonner comme nous ! On ne peut pas parler de notre tradition aujourd'hui sans évoquer ça. Ça fait comme qu'il y a, comme une situation de méfiance vis-à-vis de quelque chose qui a été imposée ; donc c'est la réalité, la preuve c'est que parfois on s'extasie quand on voit l'avion passer on dit que waouh ! On dit la sorcellerie est fort, mais parfois quand ça touche, parce que c'est extérieur, quand ça touche à la santé ou au corps, on dit non non non non non ! Donc les traditions africaines ont ces doubles attitudes, parfois on est ouvert parce qu'on a perdu beaucoup de choses, parfois aussi on est méfiant parce que ça a été un peu comme imposé."

28 P15, 254 : "Les valeurs qui sont transmises par les rites ne peuvent en aucun cas, apporter l'épanouissement de la foi chrétienne."

29 P15, 225 : "[…]Donc de la même manière que on ne peut pas dire le mot vilebre vilebrequin (rires) dans ma langue parce que c'est, c'est on ne connaissait pas le véhicule, donc ça n'a pas de correspondant. Donc le terme science dans ma langue déjà ça on ne connait pas. Et il y a deux il y a la principale notion c'est la sorcellerie, ça veut dire que quand on

In contrast to the first session, the debate at the end of the second session is very focused on the cultural differences between 'African' and 'Western'. Ayuk's response to Félix, and Martha's reaction, show that the relationship between African culture and Christian faith was a central part of the academic group, just as it was in the student group. It is noteworthy that Ayuk is younger than the other participants and this could point towards the importance of a generational difference. Ayuk's very positive attitude towards traditional knowledge, and his expression, "I do not think that any knowledge poses a problem for faith,"[30] sounds similar to the perspective held by Brice, as expressed during the student sessions. This possible generational difference will be further analysed in Chapter 5. Between the extremities of Martha's and Ayuk's positions there are a diverse range of perspectives held by the other participants, such as the more nuanced perspective of Félix. It appears that Ayuk's more radical view, that considers science to be closely related to colonialism and defends a proper place for traditional African knowledge, was needed to reveal the hidden diversity of perspectives among the group on this point. Here, the entrance of new participants (among them Ayuk) leads to a deeper understanding of the discourse. However, Ayuk does not convince the majority of participants. In general, the academics believe traditional knowledge to be part of a non-Christian perception of the world that can easily prevent the flourishing of Christian faith. However, they do not deny the value of certain aspects of traditional knowledge. Although the group does not support Ayuk's (dis)qualification of western science as colonial, Félix' reaction shows that when it comes to concrete scientific practices the use of the cultural qualification 'Western' for science appears to be inevitable.

In the last focus group session, the academic group again received new participants, and thus new input, for the final, evaluative meeting of the third research session in November 2016. Due to the new participants, different aspects of the model were questioned and critically approached, however, the

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ne peut pas expliquer quelque chose, quand on ne comprend pas quelque chose, automatiquement ça relève du surnaturel, ça relève oui, ça relève du surnaturel." And more explicit in P15, 257 : "[…] Il faut d'abord comprendre pourquoi on a commencé les funérailles avec, ça n'a, ce n'était pas la tradition, ça a commencé avec la colonisation, ça a commencé avec la colonisation.[…]Et à l'occasion, on va retirer son crâne, on va embaumer et on va aller mettre dans la maison sacrée, on va préparer un mets, on ne met pas le sel et chacun va mettre sa main comme ça, comme ça là on va lui donner et on va aller donner pour le crane à l'intérieur. 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. […]."

30 P15, 73 : '[…]Mais je ne pense pas que fondamentalement la connaissance, toutes les connaissances, je ne pense pas qu'elles soient un problème pour la foi. […]'.

cultural aspect was not really discussed. This is understandable because the discussion was based on the model and culture is not included in the academics' model. However, Tabot repeats the general feeling of 'the group' (that is the group of the second session) by saying that the relationship between traditional culture and Christian faith provokes tensions and problems.

1.1.4 Conclusion Concerning the Discourses of the Two Groups from Yaoundé

In the end there is more similarity between the discourses from Yaoundé than we expected. The second session among the academics is strongly focused on the contribution of African traditions to science and shows that it took just a small step to a theological evaluation of these traditions. Martha resists Ayuk's positive perspective regarding these traditional practices because she qualifies them as satanic – at least when it comes to her own Bamileke background.[31] Above we pointed out the correlated differences between Brice and Patrick on the one hand, and Enow, Loïc, and Janvier on the other. This provides us with greater clarity about the two tendencies in both groups. The first is inclined toward a positive and constructive understanding of the contribution of African cultures to the science and faith debate. This perspective is openly defended by students such as Brice and Patrick, and by academics such as Ayuk. However, this constructive outlook is challenged by a position that leans toward a more critical understanding of African cultures which is expressed moderately by students such as Loïc and Enow, and, most outspokenly by Martha in the group of academics.

The main tensions in both groups are related to the difference between these two tendencies and address the question of whether African culture and/or traditions can be included in science and faith. It appears that those who are against, or hesitant about, the inclusion of African traditions perceive these cultures and traditions to be incompatible with Christian faith. They fear that they will limit the liberating power of Christian faith (several students) or even increase satanic power (Martha). Prioritising Christian faith brings these participants into conflict with, or makes them hesitant to affirm, African-culture; specifically its religious character. The other tendency departs from the idea that the African understandings of science and faith must be integrated because of the unity of life. Thus, African traditions and cultures are not

31 That Martha uses a strong term like satanic is probably related to her Pentecostal background (Bom 2019).

perceived as a threat to faith or science, but rather as necessary elements that make vital contributions in these areas.

However, the debates show that these different perspectives provoke a dynamic process that establishes the framework for forming beliefs about science and faith. The critical view regarding African traditional knowledge and science, as expressed by Martha, Loïc, and others, is, in a way, reflected in the critical view of Western science held by people such as Brice and Ayuk. In the same way, the positive perspective on (Western) science put forward by Martha and Félix is mirrored in the positive evaluation of African science by Brice and Ayuk. As one of the moderate participants, it is Félix's apology (for using the term 'Western science') that highlights the inevitability of an intercultural understanding of science and faith in both groups. This understanding is directly related to their (inter)cultural location at a crossroad where African traditions, Christian faith, and Western science all meet.

We label this dynamic and intentional process 'intercultural framing'. Although we did not find specific uses of this term in the literature, the phenomenon can be identified in other fields. For example, the active and deliberate managing of culturally diverse perspectives can be recognized in the academic field of policy making, as described by Zapata-Barrero (2016) and others. This author uses the term 'interculturalism' to indicate a policy strategy that is aimed at promoting interaction and community building between people from different backgrounds, and at reducing prejudice (Zapata-Barrero 2016, ix). However, in contrast to Zapata's interculturalism, the creation of an intercultural space in the Yaoundé groups is not orchestrated or initiated by leadership or from outside. Rather, the creation is part of a group process, which also confirms our preference for a group research tool. Davis and Russ, who studied the communication between scientists, educators, journalists, and the general public, help us to be even more precise. These authors focus on the change of scientific knowledge through communication and point out the importance of 'sense making' among all those involved. They also highlight the central role of framing, which is understood as "a set of simple elements that organize the perception of a given situation" (Davis and Russ 2016, 223). More specifically, they state that: "In this science education research, framing is understood to be a dynamic process that 'depends on input from the physical world, from culture, and from social interactions'." Davis and Russ' research underlines the dynamic aspect of this kind of framing: "Because framing grows out of the particulars of interactions between students and teachers, any changes to those interactions or the context, however slight, can produce moment-to-moment changes in the knowledge that participants bring to bear in the interaction (i.e. their framing)" (Davis and Russ 2016, 228). This understanding fits

the dynamic process that took place in the Yaoundé groups, and thus 'intercultural framing' seems an appropriate term to use. In this book, we therefore define intercultural framing as a dynamic and intentional way of making sense of a subject or theme (in this case science and faith) by relating it to varying cultural conceptions of this subject or theme. In what follows we will explore whether intercultural framing also occurs in the groups from Abidjan and Kinshasa.

1.2 *Abidjan*

The discussions in the two Abidjan groups developed quite differently than the debates in the Yaoundé groups. However, the recent unrest in the city, and more specifically on the campus just a few weeks before the first research sessions took place, appears to function as a specific hermeneutical key for the participants in both groups. The violence is in keeping with the recent pattern of violence in Ivory Coast (see Chapter 3), and therefore both the students and younger academics are considered to have been raised in a politically unstable and vulnerable situation.

1.2.1 The Struggle of the Students from Abidjan Concerning 'Western' and 'African'

First, we focus on the student discourse as we did in the case of Yaoundé. In this group from Abidjan the communication during the sessions was very straight forward. For example, Princesse asked the facilitator for considerably more time to share and explain her standpoint, which was quite unusual in the groups. Women participated far more actively than in Yaoundé, which was partly due to the higher turnout of female respondents than in Cameroon. However, other participants were very timid, such as the student with an eye-catching green shirt who sat to the left of the facilitator; it was a real challenge to get her to talk. During the first research session, the three-hour debate was very lively containing sharp remarks and responses, laughter, and comments all made in a good atmosphere. And, eventually, even the shy participants such as the girl with the green shirt made their contributions.

Lamentably, the participation of the group changed over time. Only four participants from the first session turned up for the second research session in October 2015, and we had to add two new participants in order to attain the required minimum of six. Participation was only slightly better during the third session in October 2016, when five participants from the first session appeared. The group also lacked diversity in terms of academic disciplines since most of the students had a background in the humanities (law, philosophy, history, and languages).

During the first session, one of the main questions in the group is whether there should be just one general term for all kinds of knowledge. In the thick of the debate, the issue of 'insecurity at the university' surfaces and appears to be a difficult one to tackle.[32] Someone says this variable is irrelevant, because there is no structural relation between scientific work and this (political) violence. However, Emmanuel a philosophy student with a Protestant-evangelical background who originates from the western part of the country argues that this issue is not only related to the very recent student strikes, but actually exemplifies the culture of violence at Ivorian universities: you can "be threatened" or "thrown out."[33] Eventually the group decides to maintain 'insecurity' as an essential element of the model because it appears to symbolize the role of the abuse of power. This variable appears to be a crucial element of the students' model of how to deal with the cultural diversity of 'African' and 'Western' in relation to science and faith.

During this session the discourse is not focussed on the cultural differences between Africa and the West, as was the case with the Yaoundé students. Nadège, a Roman Catholic student of Law who originates from the western side of the country, plays a very central role in the final stage of the first session when the students agree on their shared understanding of science and faith. Along with Fabrice (a sociology student) and Princesse (a music student who comes from the border region with Ghana) Nadège argues that 'general knowledge' would make it impossible to distinguish between science and faith.[34] However, she argues that when the idea of general knowledge is left out, the understanding of the relation between 'knowledge of faith' and 'knowledge of the domain of study' becomes uncertain. There is a broad consensus that these two types of knowledge are complementary. Thus, Nadège and others reorganise the model and place 'truth' in a central position, whereby both types of knowledge evolve out of truth and both types of knowledge are also related to the variable 'insecurity at the university'.[35] In terms of the created model, both types of knowledge are placed in parallel which establishes that they both share a positive dependence on 'truth'. The relation between these two types of

32 See P1 293–371.

33 P1, 344 : "Et puis l'insécurité physique, c'est pas forcément on peut te taper hein? Quand tu ne maîtrise pas tes cours, c'est que tu peux être renvoyé. C'est une insécurité. (rires) Oui, oui, oui. Et tu es menacé (xxx) bien sûr parce que ça se vit à l'université. Ça se vit, c'est pas forcément agression (xxx) physique – là, […] Donc ce qu'on est en train de dire ici, ce n'est pas, ce n'est pas forcément que quelqu'un vienne te battre ou te faire ci ou te faire ça mais c'est une disposition…."

34 See P1, 419–436.

35 P1, 535.

knowledge and the variable 'insecurity at the university' is negative. This is in the sense that the growth of knowledge is supposed to diminish the insecurity, and the insecurity negatively influences the growth of the acquisition of knowledge.[36]

The relation between science and the abuse of power is confirmed and clarified in the second research session, when the participants are asked to analyse the influence of their traditional backgrounds on the model. They all live in Abidjan, the economic centre but are well acquainted with their original cultural backgrounds. Most of them speak their traditional language, although their knowledge and appreciation of their cultures differs. Their ethnic identification does not lead to opposing perspectives as is the case in the Yaoundé groups. Instead, when discussing the influence of cultural traditions on the model, the students pay special attention to the role of secret knowledge, referring to initiation rites that some of them have participated in.[37] Stories are told about family members who wanted them to undergo these initiation rites, but who were opposed by the participants' parents (both Christian and Muslim) because of their faith. Adama, a Protestant-evangelical law student, shares about how his grandfather, a community leader and famous hunter, made him acquainted with some of these practices when Adama visited his family in the village. Upon returning home, Adama's father was furious about this and confronted the grandfather. He told him that he was responsible for his son and that he wanted to give him a Christian education.[38] In this context, Aristide (a student of economics from the northern region of the country) emphasizes that from a traditional perspective academic knowledge is seen as an obstacle because of its relation to colonialism, and is thus perceived as a white men's

36 See especially the debate in P1, 529–535. For the model of the students in Abidjan, see figure AS2.

37 See P8, 119, 130, etc.

38 P8, 87 : "[…] Je suis le fils ainé de papa. Lorsque j'arrive au village mon grand dit : toi ton père il est perdu (xxx) pasteur. Toi tu es notre ainé quand on regarde dans l'arbre généalogique comme ton père est pasteur, c'est c'est toi normalement si tout était respecté, s'il n'y avait pas la colonisation, tu devais être sur le trône des trucs et tout ça (xxx) la lignée. Donc toi on doit on doit t'initier. On doit, on doit on doit te mettre dans le bain parce que demain c'est toi qui doit assurer la marche de la cité, du village. Comme ça donc au village, on a commencé à faire des choses, papa n'était pas au courant, il m'a donné des pulls, beaucoup de choses et quand je suis arrivé en ville, j'avais mis ça dans mon sac. […]Voilà donc, il m'a il m'a, il a il a commencé à me donner les trucs des initiations. Quand j'étais arrivé à la maison en ville quand papa a découvert, la même nuit il est allé au village, pour dire à papa, à son papa que lui c'est mon fils et ce que moi je lui inculque comme éducation qu'il doit suivre, on a mis un trait sur la tradition en suivant en suivant les préceptes de la Bible et autre. […]."

affair.[39] Here a relation between science and politics is established, and a more explicit link to European power and the use of violence (colonialization) is implied. Others confirm that opposition to the knowledge of a field of study is more substantial from traditional cultures than in churches.

In this context, Emmanuel gains new insight when he tries to understand the model built from a traditional perspective. This leads him to a deeper understanding of the opposing nature of traditional knowledge and academic scientific knowledge, and their relation to power. He underscores 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. "The mystical esoteric knowledge…has nothing to do with the 'knowledge of the field of study'."[40] The two types of knowledge now receive a cultural label; the knowledge of the domain of study becomes 'Western' and the knowledge of faith (including the "mystical knowledge") 'African'. This could have been the start of the intercultural framing we addressed in the discourses from Yaoundé, but the discourse did not develop further in this direction. According to the participants, from a traditional point of view, it is fundamental that these two types of knowledge are neither mixed nor confused. In the next chapter we will see that this perspective, believed by the students to be shared by many church leaders, comes very close to the way science and faith are handled by *laïcité*. Emmanuel's observation becomes clearer when compared with Beryl Bellman's interpretation of secret societies in Liberia. The author argues that the secrecy of this traditional knowledge is not related to the content (which is known by people outside the group of initiated members), but to the social distinctions within a community. When it comes to the content, he argues that secret knowledge is 'empty' (Bellman 1984, 139–144). Emmanuel's understanding points to this exact social dimension: the radical openness of Western

39 P8, 159 : "[…] Il faut dire que nous nos cultures ont été fortement marquées par la colonisation (hum) donc ce qui est académique est vu comme euh un blocage, parce que la colonisation, avec euh la colonisation, les c'est les blancs qui prenaient les gens pour leur faire subir un certain nombre de choses, donc quand quelqu'un partait à l'école c'est comme s'il était en train de trahir la société il était en train d'aller dans la dans la société de (xxx) au point où des gens ont fait des sacrifices pour ne pas que leurs enfants réussissent à l'école. Parce que réussir à l'école c'est un facteur d'échec pour nos pour nos parents, parce que c'est prendre la culture de l'autre pour envoyer chez toi, quelque chose de non droit qui va détruire la lignée et même tout ce qu'on voit aujourd'hui, que je ne peux pas porter de masque et c'est tout ça. Ils disent que c'est parce que les gens sont allés ailleurs qu'ils ont vu ailleurs et ils ont adopté ça. […]."

40 P8, 119 : "[…] le savoir mystique ésotérique est à part, n'a rien à voir avec le savoir la connaissance du domaine d'étude."

scientific knowledge is at odds with the authority structure of the traditional African community that dominates knowledge. Traditional knowledge is not freely accessible and depends on social (power) structures. According to Emmanuel, Western scientific knowledge challenges this structure through its openness and is therefore a threat to traditional society. Here, science is again understood to be at the centre of discordant powers (Western and traditional African) which leads to (possible) conflict.

Finally, during the last research session the participants evaluated their own discourse. As in Yaoundé we presented the models built by the groups from the other cities and encouraged the participants to look for convergences and divergences. Both the student and academic groups in Abidjan are impressed by the way most of the other groups engage with variables such as 'African culture'. Nadège opens the student session by expressing the need for more cultural awareness, however, opposition to this opinion soon surfaces. Oriane, a student of criminology, argues "I think culture should not be more important than faith… Africans have more faith in their culture than in Christian faith."[41] This substantiates how culture and traditional religion are identified and perceived to be in opposition to Christian faith.

1.2.2 The Group of Academics from Abidjan

In comparison to the student group, the participation of the academics was more reliable during the research in Abidjan. Five of the six participants from the first session were also present at the second session. Consequently, ownership of the discourse is felt more strongly here. In terms of the participants' disciplinary backgrounds, this group was also more balanced than the student group as it had representatives of the natural sciences in the presence of a biologist and a chemist. However, in terms of the dynamics between the participants, the student group was livelier and allowed clear opposition between group members. In contrast, the academics tried to avoid such clashes. Participants' perspectives and the meaning of certain statements they make are not really questioned and are often handled with care. They search for consensus and therefore construed a far more complex model during the first session.[42]

Sensitivity about the insecurity at the university also comes to light in this group. Rebecca, a professor of French, relates the experience of insecurity to conflicts. This appears to be a topic that profoundly affects some of the

41 P17, 25 : "[…]..Moi je trouve que la position de la culture n'est pas au-dessus de la foi ; parce qu'il faut dire que les Africains ont plus foi en leur culture qu'en la foi chrétienne. Ils ont plus foi en leur culture […]."

42 See figure AA2 in the Annexes.

participants. Towards the end of the first session, Stéphane, a linguist who is quite influential during the debate, reveals something of the background to this sensitivity by referring to the complex cultural situation in Ivory Coast.[43] He thinks that cultural awareness automatically leads to conflict and illustrates this using the example of those who argue that all school education in the country should be carried out in the mother tongue. According to Stéphane, their argument is that "A people that does not receive knowledge in its mother tongue, cannot develop itself."[44] In the end, Stéphane explains that he is speaking about the anti-Western position of the pan- Africanists. They oppose the practice of education in French in Ivory Coast, and claim that the translation of all educational resources, even Microsoft, is necessary for the development of the people's proper identity. According to Stéphane, these people argue that even if this translation takes fifty or a hundred years, and therefore holds them back for a long time, it will be worthwhile.[45] Although Stéphane's study of African languages has made him sensitive to this argument, he clearly opposes this position believing it to be completely unrealistic. More important, however, is the fear that he and others share regarding ethnic ('cultural') conflict which provoked civil wars in the recent past and is also related to what is called 'the insecurity at the university'. The broader discussion on culture is thus closely linked to power and politics, and the words of Stéphane further explain why cultural diversity is directly related to politics and therefore also to insecurity and violence.

The question of the importance of culture to the understanding of science and faith is discussed intensively in the next sessions. Fidèle is a Protestant-evangelical botanist who conducts laboratory research on plants used by traditional healers in order to identify their active substances. Fidèle thinks that traditional science and what he calls 'modern sciences' must not be separated because they are complementary. In this way, modern science takes its point of departure from traditional science.[46] Stéphane and Kouassi, an educational

43 See Chapter 3.

44 P2, 436 : "[…] Aujourd'hui je vais donner l'exemple, notre culture, la prise en compte de notre culture serait qu'on dispense la connaissance scientifique dans les langues maternelles, du cycle primaire jusqu'à l'université. Parce qu'un peuple qui n'a pas, qui ne reçoit pas la connaissance dans sa langue maternelle, il ne peut pas faire de développement."

45 P2, 507 : "[…] Si on devait revenir en arrière, il va falloir traduire tous les traités scientifiques dans cette langue, il va falloir traduire Microsoft dans cette langue, il va falloir tout faire l'administration dans cette langue. Donc, cette prise en compte là, ça (xxx) un conflit. Les panafricanistes disent, même si cela devrait mettre 50 ans, 100 ans, il faut le faire parce que c'est notre identité […]."

46 P9, 76 : "[…] On part toujours à partir de notre tradition qui n'a pas tenu compte de ce qui se passe en laboratoire qui n'a pas extrait de substance actifs, mais quand on arrive au

psychologist who identifies himself as a Pentecostal, argue that modern science is rejected by traditional culture, because it does not respect its traditions and causes distrust. Stéphane argues that most African scientists fail to successfully integrate traditional and modern science. People get lost because "the new model … is not completely European but more European than African, something hybrid. We are lost. See, this is the real problem."[47] This corresponds to the students' analysis during the last session in which they discovered that they marginalized culture in their model. Several participants think this is typical of Ivoirians, who assimilated French culture so well. Indeed, science is seen as an important instrument in the process of assimilation. This discussion helps us to realise that this group's strategy is related to this tradition of assimilation. The strategy consists of playing down the value of African culture, because focusing on it will increase the stress on ethnic differences in Ivory Coast, which is the origin of the conflicts. However, recognition of their own assimilation as academics underlines the importance of Western, and particularly French, language and culture to academic life, (and probably more broadly the national identity) and their own identity as academics. According to Stephane, this results in hybridity and an awareness of being cut off from their roots or even 'being lost'. This awareness of their hybrid identity seems to be another reason why they prefer to avoid focus on culture. It confronts the academics with being part of a culturally lost group that is specifically oriented towards Europe (or the Western world). In a reality in which Africanists' and ethnic interests are powerfully presented their position is therefore vulnerable.

In the last session the academic group only contains three returning participants, and this adds some interesting elements to the understanding of assimilation and hybridity. The three 'original' participants, Stéphane, Kouasi, and Clément, are aware that most of the other groups paid greater attention to 'culture'. Therefore, the conversation begins with a focus on culture. Yao, a new participant who is a professor of economics and an Protestant-evangelical, makes the questioning more personal by asking: "Which culture do we have? Do we have an African culture? Or do we have a Western culture? Or do we

laboratoire souvent c'est confirmé, souvent c'est confirmé. […]Ce n'est pas dans tous les cas, c'est pas dans tous les cas ; c'est un exemple que moi j'ai pris pour dire que toujours euh souvent on a tendance à forcement séparer les deux alors qu'en réalité, les deux se complètent : la science moderne s'appuie sur la science traditionnelle pour devenir plus meilleur. […]."

47 P9, 82 and 86 : "[…] Il n'entre nulle part parce que euh dans le nouveau modèle qu'on a, qui n'est pas totalement occidental mais qui est en fait plus occidental qu'africain, qui est hybride mais qui fait la part large à l'Occident. On ne se retrouve plus. Voilà c'est ça le véritable problème. […]."

have a hybrid culture?"[48] The sociologist Jaures, another new and Protestant-evangelical participant, believes science and faith are representative of cultures. He sees himself and his colleagues as participating in three cultures at the same time: their original culture, scientific Western culture, and Biblical culture.[49] We come back to the use of hybridity in Chapters 5 and 6. Some argue that African contributions to science are frequently neglected and do not receive the attention and honour they deserve. Jaures emphasises that it is often easier for Christians, who do not believe in the traditional myths and the related spiritual powers because of their faith in Christ, to investigate phenomena that provoke fear in non-Christians because of their belief in those myths and powers.[50] This is confirmed by Jacob, a professor of art and cultural development, who encourages the others to help the students. He says that he never had problems with a scientific approach. "There are no taboos for knowing […] we are naturally predisposed to reconcile these two things [science and faith]."[51] Amazingly, this perspective is almost identical to Ayuk's argument from the academic group in Yaoundé. We will analyse these words in the next chapter.

1.2.3 Conclusion Concerning the Discourses of Both Groups from Abidjan

In the discourses of the two groups from Abidjan, the themes of 'African tradition' and 'Western (culture)' play a different role than in Yaoundé. Interestingly, a variable referring to African traditions or culture is absent from the students' model and marginalized in the academics' model. Instead, the conflict between Western and African influences is mainly concentrated in the inclusion and understanding of the variable 'insecurity at the university'. This

48 P18, 17 : "[…] Mais aujourd'hui, nous, quelle culture nous avons ? Est-ce que nous avons la culture africaine ? Est-ce que nous avons la culture occidentale ? Ou bien est-ce que nous avons une culture qui est hybride, quel type de culture nous avons ?[…]."

49 P18, 19.

50 P18, 30.

51 P18, 34 : "[…] Moi, mon expérience personnelle, c'est que je suis chrétien mais je n'ai jamais eu de problèmes pour aborder des situations du point de vue scientifique, il n'y a pas de tabous, il faut le leur dire clairement qu'il n'y a pas de tabous bien au contraire, comme il l'a dit, de façon naturelle nous sommes prédisposés à concilier les deux choses, ceci, il faut le leur expliquer. Il faudrait que notre expérience de chrétiens en même temps d'enseignants, j'allais dire d'académiciens, nous permettent donc d'aider, d'encourager de plus en plus, notre expérience personnelle doit encourager, il faut à chaque fois revenir dessus, revenir sur ce fait pour que de plus en plus les jeunes comprennent que Dieu c'est comme on dit, Dieu c'est cet être (xxx) qui est au-delà même de science, de la métaphysique. […]."

conflict is very concrete and refers not only to the unrest at the university during the Spring before the first research session, but also to a more general political tension in Ivory Coast, and to the influence of Pan-Africanist stances, as became particularly clear from the academics' discourse. It is evident that this concrete context provides important background information for understanding the way in which the opposing influences of 'Western' and 'African' were addressed in Abidjan. Although there are some interesting differences between the two groups from Abidjan (mainly related to a stronger identification with academic life among the academics), in both discourses the use of the terms 'Western' or even 'colonial' and 'science' does not have the same connotations as in the discourse from Yaoundé.

In the discourses from Abidjan, the use of 'African' and 'Western' is narrowly related to power and suppression. The academics' discourse reveals that their tendency to avoid giving culture a more substantial role is not only due to their fear of conflict and violence as is the case among the students but is also related to their own position as academics. In the context of ethnic and Africanist profiling, the assimilated academics (because of their direct relation to Western science) are a vulnerable group without a univocal belonging. For these reasons, the participants fail to assign culture a proper role in relation to science and faith, despite this being a desire expressed by both groups during the third research session. In the final section of this chapter we compare the dynamics of the six groups more extensively, and clarify why intercultural framing is not an appropriate term for what is going on in the groups from Abidjan.

1.3 *Kinshasa*

When we arrived at N'Djili International Airport for our GMB sessions in June 2015, we did not realise that this would be the last time we used the old buildings with their faded glory and experienced the airport's chaos of passengers and luggage. Only a few months later a brand new terminal was in use and the procedures put in place by the local authorities were much more efficient. However, navigating the old airport in June took us some time and it was late when we entered Kinshasa. At three o'clock in the morning, as we drove down the long road from the airport to our guesthouse in the city centre, there were still people walking along the highway. During the period of our research the political situation in Kinshasa was unstable, although that is a fairly normal state of affairs in the Democratic Republic of Congo.

However, in contrast to the discourses in Abidjan, the political unrest never appeared as a theme in the discourses, let alone in the models of the two research groups. Fortunately, thanks to the enormous efforts of local GBU staff and other people involved, we had no problems traveling and organising the

meetings in 2015. However, particularly during the second half of 2016, the situation began to deteriorate further. The presidential elections scheduled for December were cancelled by the government, and this provoked unrest and protests in the streets of Kinshasa that were violently suppressed. In October, the local GBU advised us not to come, and so we postponed our visit realizing that the third research session with the groups from Kinshasa would not be possible in the time allotted for this research. We had, however, gathered enough material in the first two sessions to allow the reconstruction of the major characteristics of the discourses in both the student and academic groups.

The Kinshasa groups function as a critical case, because the Democratic Republic of Congo has not been colonized by France and therefore lacks the *laïcité* understanding of education as a sign of colonial heritage.[52] We are curious to know if this difference in context also influences the understanding of 'African culture/traditions' and 'Western culture'.

1.3.1 The Role of 'African' and 'Western' in the Students' Discourse from Kinshasa

The composition of the student group in Kinshasa has a strong inclination towards technical and applied sciences. Of the eleven students who participated in the first session, only a few are taking courses related to classical scientific careers such as law and medicine. The others are students of applied studies such as trade, electricity, and public works. Only four of the eleven are women. No Roman Catholic students are included and of the total thirteen participants in the two sessions, seven identify themselves as Pentecostals. It appears to be more difficult for the GBU to find enough MA students in Kinshasa so a small number of the group are what could be called BA students. Thus, in certain areas, the group is less diverse than others, and there is no doubt that its specific features have an impact on the group's discourse and the model they build. This model does not feature any epistemological terms, such as 'knowledge' and 'understanding', and specific variables such as 'technology' are added that refer to science and scientific practices. Over time the participation of this group is more stable than that of the students in Abidjan. In the second session in November 2015 half of the group from the first session was present. Thus, just two new participants came in to reinforce the group for that session.

It is only during the last thirty minutes of the first session that the participants turn to the role of 'African culture'. Staelle, a very active participant who is studying computer sciences, qualifies the relation between 'technology' and

52 The function of Kinshasa as a critical case is explained in Chapter 2. More on the specific cultural background of Kinshasa can be found in Chapter 3.

'African culture' as a negative one.[53] Keicha, a student of styling from a Protestant-evangelical background, agrees with her using the argument that Christian faith makes people abandon certain habits typical of African cultures.[54] However, this understanding is challenged by Gloire, a Pentecostal student of medicine, who alleges that faith also contributes to culture. Here, Gloire brings in a different and much more dynamic understanding of culture than we have seen so far. According to Gloire, clothing is a good example. He says, "With Christian values, the women began to wear clothes."[55] He also underlines the positive contribution of African culture to faith: "African culture implies the community of brothers and this community brings forth, or stimulates, faith; it lets faith grow."[56]

The role of African culture is discussed more extensively during the second research session. During this session, the students propose an alternative version of the model built in June 2015 which makes other feedback-loops possible.[57] According to the students, the alternative model is necessary because the model built during the first research session could not satisfactorily handle the case of the doctor that was presented to them by the facilitator.[58] In both the original and the revised models 'African culture' plays a crucial role.[59] However, Gloire's positive understanding of African culture's contribution to faith is still not represented in the new model. In this second session, Gloire recapitulates his defence of the possible positive influence from technology to African culture.[60] This leads to a huge debate over culture, in which the new participant, Congo, a communications student and member of a so-called

53 P3, 427–449.

54 P3, 459 : "Parce que plus il y a la foi, il y a certaines habitudes qu'on avait dans la culture africaine qu'on ne fait plus. A l'époque, comme on dit dans la Bible, on demande de donner la dîme à l'église alors que chez nous les Africains quand tu as ce genre de truc, il faut donner au papa qui va te donner, il faut faire ceci par rapport aux parents. Alors plus on est dans la foi, on essaie un peu de bannir ces choses-là et on est plus au figé sur la Bible, on laisse tomber certaines coutumes et certains rites."

55 P3, 461 : "Moi je, je vais dans le sens contraire. Pourquoi ? Parce que la foi apporte quelque chose aussi à la culture. Je prends un exemple. Autrefois les femmes africaines étaient dénudées, elles s'habillaient pas, elles étaient pratiquement nues. Avec la foi chrétienne, avec les valeurs chrétiennes, on arrive à voir des femmes habillées, couvertes."

56 P3, 553 : "Parce que la culture africaine implique la communion fraternelle et cette communion engendre ou stimule la foi, ça augmente la foi. […]."

57 From P10, 50 and onward, there are concrete proposals to change the model. See KS2 and KS3 in the Annexes for figures of both models.

58 See Chapter 2 for the use of the case of the doctor during the second research session.

59 Also, in the revised model (KS3), both balancing and reinforcing feedback-loops (terms explained in Chapter 2) pass through this variable.

60 See P10, 40, 42, 53.

(Pentecostal) *église de réveil*, plays an important role. He not only launches some fundamental ideas for the revision of the model, but also claims that technology as such does not destroy African culture. According to Congo, the effects of technology (and thus science) on African culture depend on the way we understand ourselves and our use of technologies:

> […] during colonial times they made us think that we were primates to be civilized; we had to rise to the level of the Westerners. That has anchored in us. The problem is not technology. I can have a telephone. However [the question is]: What does the culture inside me push me to do? It is as if I am actually moving towards the West. That is where the loss of African culture is situated. The problem is not really the technology, it is what is inside us.[61]

The cultural context in Kinshasa is "moving in the direction of the West," as Congo puts it, but according to the group it finds a proper balance between what could be called 'African' and 'Western'. Gloire provides a nice example of this balance when he comments on the case of the doctor using an example from his own medical studies.

> I was in the hospital during my internship and we had a case of a patient with psychological problems. He suffered from a manic-depressive illness. Even in medicine they openly told us that this was also spiritual. In the treatment, a spiritual treatment should be included, and so I went out to look for a pastor.[62]

The specific cultural situation in Kinshasa, as explained in Chapter 3, is also discussed in this second session. In terms of the university, Gloire explains that a lot of the academics and people involved in the academic world are

61 P10, 59 : "[…] à l'époque de la colonisation, on nous faisait voir que nous sommes primates pour être civilisés, il faut monter dans le niveau de de des Occidentaux. Cela en ancré en nous. Le problème en réalité c'est pas la technologie. Je peux avoir un téléphone mais à quoi, la culture que j'ai en moi me pousse de faire quoi. C'est comme si maintenant j'avance vers l'Occident. C'est là où se situe la perte de la culture Africaine. Le problème ce n'est pas vraiment la technologie, mais le problème c'est ce qui est au-dedans de nous."

62 P10, 117 : "[…] Puisque tel que je prends un exemple. J'étais à l'hôpital je suis en train de faire mon stage, on a eu un cas d'un patient, ce patient-là a les troubles psychologiques. Il souffre de d'un trouble maniaco- dépressif. Or même en médecine, on nous dit clairement que ce trouble est aussi spirituel. Dans le traitement, il faudrait adjoindre aussi un traitement spirituel. Je suis allé voir un pasteur. On s'est entendu de temps en temps prier pour la personne."

believed to be involved with "occult lodges or occult movements."[63] This issue, concerning the relationship between the university and movements such as freemasonry and Rosicrucianism was also mentioned by students and academics from Yaoundé, and the academics from Abidjan.[64] There is no doubt that this contributes to the disrepute of university campuses among (Pentecostal) Christians in Kinshasa (Pype 2012, 41). Gloire alleges that this provokes a very complex relationship with science in most Pentecostal churches. Traditionally, the leaders did not prioritize higher education, because in their view it did not improve life with God or affect going to heaven. Today, however, higher education and science are valued by most pastors and leaders.[65] What makes it more complex, he argues, is the growing trend of diabolizing study on the part of certain (younger) pastors.[66]

In contrast to the other cities, when it comes to the different African cultural traditions, most of the participants do not have a clear image of the traditional culture they belong to and are poorly acquainted with its rituals and language. We will analyse this point in the next section of this chapter.

1.3.2 The Importance Assigned to 'African' and 'Western' by the Academic Group from Kinshasa

Concerning the variety of disciplines represented, the composition of the academics' group in Kinshasa is slightly more balanced than the student group, although there is also a significant participation of people from the applied sciences in the academic group. Additionally, theology and Christian philosophy are strongly represented in this group. The two Roman Catholics, two neo-Pentecostals, and four evangelical Protestants offer a broader Christian scope than that of the students' group. However, the complete lack of any female participation makes it exclusive in terms of gender. This was the only group in which the use of the GMB research method was challenged by the participants. Some participants thought that the method limited the group in terms of expressing themselves. They felt they were being forced into a typically Western

63 P11, 179 : "Si je peux ajouter quelque chose du fait qu'il n'y ai pas une relation directe entre la foi et le domaine d'étude, c'est aussi du fait de la culture parce que dans le passé ce n'était pas seulement pour le pasteur, il y avait une, permettez-moi de l'appeler ainsi, une évangile populaire au Congo qui disait que, les gens qui étudiaient beaucoup étaient occultistes pour la plupart, la plupart des gens qui étudiaient beaucoup on disait cela, voire même on donnait à à l'université une connotation occultiste."

64 For the students from Kinshasa, see P11, 179 and 184; for the students from Yaoundé, see P5, 390; for the academics from Yaoundé see P15, 190; and for the academics from Abidjan, see P9, 61.

65 P11, 27 : Cardin argues that there is a similar development between the generations in his neo-Pentecostal church, see P11, 56.

66 P11, 276.

understanding of science and faith. Fortunately, these worries were alleviated,[67] but this sensibility is also reflected in the choice of certain variables.[68]

When it comes to cultural differences, Augustin, a Roman Catholic professor of Christian Philosophy, appears to be particularly sensitive to European prejudices such as the notion that all Africans are believers. He therefore wishes to include atheism and argues that this is certainly present at African universities.[69] Augustin is by far the most active participant, especially during the first session, and he is attributed a certain authority by the others perhaps because he is from the prestigious Catholic University. Musimbwa, the other Roman Catholic, is second in terms of the number of contributions. This underlines the impression that the Protestant and Pentecostal academics, mostly from the less well known Université Chrétienne de Kinshasa, are intimidated. This does not contribute to an open debate in the group and the discourse is therefore mostly unilateral, between the facilitator and the person contributing. The model reflects this unease and offers an incredible number of feedback-loops. There is a tendency among these academics to add relations between the variables instead of discussing them. The fact that forty-eight loops pass through the model's central variable, 'love and faith', illustrate this quite dramatically.

In the first session, the sensitivity regarding the use of a European method is a clear indication that 'European' or 'Western' is not a neutral concept for the participants. Here it is also related to power (difference) and the possible or probable abuse of power. However, in the model built by the academics, there is no inclusion of a concept such as 'Western culture'. Augustin argued that concepts such as 'atheism' and 'modernity' are not specifically understood to be Western. Nevertheless, it is interesting to see that the model reflects a negative relationship between science and 'African traditions'. Additionally, the use of a variable such as 'instrumental reason' appears to be due to a desire to speak about the typically Western way of reasoning among the sciences. In contrast, the variable 'encompassing reason' is clearly related to an African way of understanding which is connected to faith. Thus, the use of 'African' and 'Western' do play a role in the understanding of science and faith, but in a rather secret or hidden way.

67 P4, 90–100, 181.

68 See figure KA2.

69 P4, 122 : 'Dans les milieux dans les universités on trouve aussi des athées et des fois qu'il a été, il y a (xxx) Messie Metogo qui a mené des études là-dessus, qui a publié un livre « Dieu peut-il mourir en Afrique » et voilà il montre clairement que bel et bien Dieu peut mourir en Afrique ou dans l'Afrique traditionnelle. Il y a toute une tradition à partir des proverbes, à partir des mythes, une tradition de l'incroyance ».

In the second and last session, the cultural difference between 'African' and 'Western' is discussed more openly. In general, science and faith are understood to be compatible. When the case of the doctor is discussed, Espoir, a professor of mechanical construction who identifies himself as a Pentecostal, argues that the doctor limits modernity when she prays with the patient.[70] Augustin says that this method is typically African, because the human being is not only perceived as a biological being but also as a spiritual one.[71] This perspective is confirmed by Espoir.[72] This understanding of the human being thus functions as a paradigmatic example of the African approach to science and faith in that the two belong together as body and soul or spirit. Indirectly, the group indicates that separating the two ('separation' is one of the concepts from their model) is typically European or Western.

However, when they discuss the understanding of science in churches, the perspective becomes more complicated. As we will show in the next chapter, the separation, or even opposition, of faith and science appears to take place in their own contexts as well. Most participants argue that in the churches this understanding of a separation between faith and science has great influence. It is clear that although they think that science and faith belong together, it is particularly difficult for the Protestant-evangelical and Pentecostal participants to completely free themselves from the antagonistic perspective of the churches. As a Roman Catholic, Augustin is not part of these dynamics and argues that there is no sense in demonizing modernity. Nonetheless, his Protestant and Pentecostal partners continue their discourse on the harmful effects of dance, publicity, media, etc.; although they also recognize the positive effects of modernity such as technology.[73] When the academics discuss the way science is perceived by the representatives of African traditions, Espoir

70 P12, 67.

71 P12, 69.

72 P12, 73 : 'Alors, nous acceptons et l'homme se compose, la matière physique ici de l'âme et de l'esprit, l'âme siège des émotions que les psychologues peuvent pénétrer et vous aider à guérir. Les psychologues ne pénètrent pas le spirituel, les psychologues ne pénètrent pas l'esprit, ils pénètrent je veux dire l'âme c'est-à- dire les émotions, l'intelligence et tout ce qui est lié au fait entre, parce que l'âme en fait n'est pas matérielle, ça c'est vrai mais il sert quelque peu de jonction entre le corps physique et l'esprit. Le psychologue peut aller jusqu'à cette jointure, mais c'est les pasteurs, les prêtres qui vont jusqu'au niveau de l'esprit. En Afrique, ce sont les guérisseurs, les différentes sortes de *ganga* qui allaient jusqu'au niveau spirituel. En comparant cette pratique de ce médecin qui va jusqu'au niveau spirituel et au Ganga c'est-à-dire au guérisseur tout ça, qui allait aussi au niveau spirituel guérir les problèmes physiques, nous pouvons redire l'exemple devant nous de ce docteur je ne sais pas'.

73 P12, 128 : "[…] à ne pas diaboliser aussi la modernité." P12, 134–137.

argues that the popular belief is that African culture is opposed to modern science. He therefore perceives African scientists, including himself, as "hybrids" because they are "initiated" into the sciences.[74]

1.3.3 Continuity between the Discourses of the Two Groups from Kinshasa

Although the discourses of the groups are quite distinct, it seems that the idea of what is called "hybridity" is characteristic of the discourses from Kinshasa. Although some participants, such as the student Congo, claim that there is a move towards the West, that does not mean that the participants fail to identify with what is termed African culture. However, in these discourses there appeared to be a substantially larger distance between the participants and what participants from Yaoundé and Abidjan called 'the village' or the traditional culture of a specific ethnicity. This does not prevent science and faith from being understood through the intercultural dynamics between 'African' and 'Western', as it is in the discourses from Yaoundé and Abidjan. There is an idea about an African approach to science, which is expressed in the words of Gloire about the patient at the hospital and in Augustin's remarks on the holistic or inclusive perspective regarding human beings. However, at the same time, both groups from Kinshasa display an awareness that African cultures or African traditions are more related to faith than to science. When faith and science are contrasted, as was especially the case in the academic groups (elaborated on in the next chapter), African and Western are also opposed to each other.

2 Part 2: Conceptions of Culture and the Context

In the description and analysis of the discourses of the groups above we have already made some allusions to the correlation between the way culture is

74 P12, 141 : "La tendance générale est de vouloir opposer les traditions africaines à la science que beaucoup appelle la magie des blancs, c'est comme ça que l'opinion publique a tendance à voir dans la science la tradition blanche, la magie c'est-à-dire que c'est eux qui font tout, que lorsque vous suivez, vous apprenez (xxx) à l'université, nous, nous sommes considérés comme étape des noirs initiés à la magie blanche parce que nous avons suivi les sciences appliquées, tel est notre cas que nous avons suivi à l'université, d'autres sont initiés à des sciences (xxx). Donc ils sont perçus par les autres sont nos frères qui n'ont pas eu cette possibilité d'aller suivre les études à l'université donc on est comme des hybrides."

understood and participants' social and political contexts. Thus, we focus on that correlation before comparing the different discourses of the six groups.

In most groups, especially those from Yaoundé and Abidjan, 'culture' is generally understood in relation to a clan or an ethnic group, and can be characterized as what Robert Schreiter calls an integrated concept of culture (Schreiter 1997, 47–53).[75] Even when it is used in a more general sense, such as in the student group from Abidjan ("Culture must not dominate faith [...] Africans have more faith in their culture than in Christian faith"), the conception of culture is still related to an integrated understanding of culture – in this case of all Africans. Although there are many Christians among Africans, the Christian faith does *not* appear to be included in African culture here. Indeed, the debate in the student group from Yaoundé was mainly focussed on the question of whether African cultures *could* relate positively to Christian faith. It appears that 'African culture' and even more strongly 'African traditions' are related to a fixed perception of these cultures. Thus, in the groups the understanding of 'culture' is often very static (cf. Schreiter 1997, 51). Additionally, 'culture' is often used in combination with 'African' in a negative sense. In the third research session with the students from Yaoundé, Enow's words, "... not only African cultures, but the Bible attacks frontally the cultures of all peoples, ... of the Jews and the Europeans ..."[76] were received as a new perspective. Therefore, culture seems to have been understood as being related to a specific African 'defect'. This is underlined by the fact that qualifying science as 'Western' or 'European' took some time in this group.[77] Furthermore, this perspective is not limited to the student group. Félix excused himself when he used the expression "Western science" in the academic group in Yaoundé, and this is of course most telling. These expressions indicate a tendency in the discourses to view 'culture' as an African affair. However, the discourses also reflect positive perceptions of this integrated understanding of culture, as is reflected in contributions by students such as Brice and Patrick, and academics such as Ayuk. This positive perspective is also found in the Abidjan groups (Stephane, for example) and especially in the Kinshasa groups (Gloire and Augustin, for example).

75 More on this definition can be found in Chapters 2 and 6, especially when the definition of Tylor and the perspectives of Tanner, Kim and Robbins are discussed.

76 See footnote 15.

77 This is an interesting example of an issue we mention in Chapter 2: even without intervention in the debate, challenging a group to express their position will motivate them to make certain attitudes that are latent explicit, and it will therefore influence or even change their views.

The cultural context of the discourses significantly impacts the way culture and the distinction between 'African' and 'Western' is addressed and evaluated. In the groups from Yaoundé, we saw that ethnic ties played a substantial role in the discussion. Those with a Bamileke background appeared to be particularly critical about the compatibility of their cultural background and the Bible.[78] Janvier explains that because they are from such a remote region, the Bamileke initially avoided contact with Europeans and rejected their science and education. However, this has since changed, and now they are known as a group that highly appreciates education.[79] The health sciences student Asta, another Bamileke, adds that nowadays the Bamileke in the Western Highlands even spend a lot of their money on the education of their children.[80] Martha from the academic group is a good example of how the Bamileke embraced science. Her strategy in the first research session was to exclude the cultural factor from the model, which seems an intelligent way forward for those wanting to assimilate. However, the understanding that their own cultures and traditions are opposed to Christian faith made them a highly visible group during the research sessions. The strategy of those from the north (another remote and discriminated region) such as Junior and Brice is quite different. They are very proud of their cultures and strongly believe in its capacities. Instead of opting for assimilation they struggle for cultural recognition. Another possible influence to highlight here is that of different generations. Ayuk, who disturbed the unity among the academics of the first session, is a young professional and is much closer in age to the students. It seems that emphasising the importance of the proper African character is more common among younger people, who may be under the influence of the Pan- Africanists to whom Patrick referred. Additionally, it is likely that the difference between participants from different ethnic backgrounds is related to the theological differences between the Protestant and Pentecostal churches that dominate differing geographical regions of Cameroon. Varying theological stances concerning the appreciation of traditional cultures could have affected the participants' perspectives. According to Messina and Van Slageren (2005, 28), Baptist churches are traditionally strongly represented in the Bamileke region, while in the northern regions the

78 See Chapter 3 for information about the Bamileke.

79 P16, 042 : '(…) Dans ma tradition également, on promeut même l'éducation, mais ça je vais un peu, je vais un peu euh nuancer. L'éducation au départ dans ma tradition était une chose dont il fallait se méfier. See also foot note 21'.

80 P16, 107 : ' (…) je pense que déjà à l'Ouest, les parents encouragent les enfants à aller plus loin dans les études, même s'ils sont pauvres, ils préfèrent même prêter l'argent, prêter les champs'.

Lutherans are dominant.[81] However, we have insufficient information regarding the participants' ecclesial biographies to relate the within- group differences to any theological differences between the classical Protestant denominations. Additionally, the rapid spread of Pentecostal churches, and the widespread availability of Christian radio and tv stations, must have weakened the traditional ties between regions and the theological domination of denominations. Lamentably, we could not find reliable data regarding the impact of these phenomena.

It is logical that in a context dominated by cultural politics strategies that aim to aid the survival of a people group, such as assimilation, are common ground. However, although these strategies were very obvious in the discourses from Yaoundé, they did not dominate the discourses in either Abidjan or Kinshasa. This was not because cultural politics is not an issue in these contexts, but because another aspect of what is understood as culture appears to be more urgent. The groups from both cities, and especially the students from Abidjan, do sometimes use a similar (integrated) concept of culture as in Yaoundé. However, the term 'culture' is not used in the same ethnic and strategic way as it is in the student group from Yaoundé. In the groups from Abidjan and Kinshasa culture is used in a more flexible way, and in three of the four groups hybridity was used to self-describe the participants' cultural positions. The different use of culture is of course related to the development of the discourse, which was different in every group.

The description of Ivory Coast in Chapter 3 makes it clear why violence and the abuse of power (characteristics of the country's recent history) have made the Ivorians very sensitive to these issues. A certain fear of conflicts was especially noticeable among the academic group (they even included 'conflict' in their model). That Stephane, who as a linguist expressed his love for the diversity of cultures and languages in his country, felt forced to abandon the defence of these languages, illustrates the weight of the fear of violence among the group. French is an important instrument of national unity and communication and is used for scientific research at the university. Stephane was well aware that it would take many decades to achieve the same level of scientific research and teaching in the many native languages of Ivory Coast. This fear of violence affects the use of the terms 'African' and 'Western' in the debates. Although the students from Abidjan expressed a certain pride in their cultures,

81 However, this results in a very general overview. Only the theological difference between the ecumenical traditional Lutherans, and the evangelical *Luthériens fraternelles* (both influential in the northern part of the country) is truly considerable.

they did not speak about their specific qualities, as some of the students from Yaoundé did. These traditional cultures were mainly considered to be part of their roots and their pasts. Thus, cultural diversity kept a low profile in their discourses.

Although the recent history of violence appears to be an important factor in this restraint, the low profile of cultural diversity in Abidjan also has other causes. Stephane and other academics pointed to a higher level of assimilation of French culture and language in the Ivory Coast compared to other countries in the region mainly because of Houphouët's administration (see Chapter 3).[82] Above we argued that the academics themselves are highly assimilated and thus understand themselves as 'hybrid', which makes them vulnerable in a context that values the importance of ethnic background and pan-Africanism. The last session with the academic group revealed that they perceive Christians to be less bound to African cultures, especially when it comes to faith in magic. This could also be understood as a weakening of their African identity. Together, the fear of conflicts and abuse of power, the years of assimilation, and the understanding of Christians as only partly identifying themselves with traditional culture, create a complex understanding and appreciation of 'African (traditional) cultures' and 'Western culture'.

Finally, we turn to Kinshasa. In contrast to the discourses from Abidjan, violence and war are completely absent from the discourses in Kinshasa. Although Abidjan has had several violent political crises in the last two decades, Kinshasa's political, social, and economic situations are even worse. However, no explicit reference was made to the country's chaotic situation or the frequent use of violence. In the discourses, the rest of the country received little attention. Indeed, the participants seem to perceive Kinshasa as a world of its own. In Chapter 3 we quoted Katrien Pype's remark about "the homogenizing work about ethnicity that is currently going on in Kinshasa" (Pype 2012, 237) which is exactly the cultural ambience that is reflected in the discourses from

82 P9, 142–143 : 'Il est vrai que c'est une variété du français euh que ne que ne comprennent pas forcement les français de l'hexagone … (rires et murmures) mais c'est quand même du français. Mais dans les autres pays d'Afrique occidentale, c'est leurs langues maternelles. Quand vous arrivez au Sénégal, au Burkina-Faso, au Mali, au Benin, au Togo, vous n'allez pas entendre le français en famille. Quand vous attendez français dans la famille, ce qu'il y a un étranger francophone qui est arrivé. … Mais justement parce que la Côte d'Ivoire est une est une est une nation qui a été beaucoup plus assimilée que les autres. La politique d'assimilation de la France a été plus pratiquée en Côte d'Ivoire parce que le premier président était favorable aux français. (xxx) Il voulait même faire de la Côte d'Ivoire un département d'outre-mer ; c'est parce que les Ivoiriens à l'époque refusaient. […]'. See Chapter 3 for more on Houphouët.

Kinshasa. Here culture is not primarily related to what could be called a well-defined tradition that originates in a specific context. In a way the discourses from Kinshasa also use an integrated concept of culture (that is the culture of Kinshasa, *La Kinoiserie*), but there is also a strong awareness of the hybridity of this cultural situation which makes this conception of culture more flexible. The *Kinoiserie* reflects what student Congo called "the move to the West." This makes the term 'African' and, in a sense also 'Western', less defined qualifications. The resistance towards the research method made it clear that for the academic group 'Western' still has an imperialistic connotation. Among both the students and the academics in Kinshasa the qualities of a typical 'African' approach to science can be distinguished. Nevertheless, 'Western' can no longer be defined as being completely different because it also refers to some aspects of themselves. Additionally, Pype mentions specific features of the Pentecostal outlook that are intertwined within this culturally hybrid situation. We came across the dualistic outlook of this understanding when the participants divided the world into the realm of God and the realm of the devil (Pype 2012, 40) in the discourses of both groups (see Chapter 5). In this framework, 'culture' is related to the ambience in the city and the *Kinoiserie* and is therefore perceived as belonging to the realm of the devil. Culture is therefore heavily criticized by a substantial number of the participants. Both the academics' and the students' discourses bear elements of this dualistic understanding that sometimes surpass the distinction between 'African' and 'Western'.

3 Part 3: Comparing the Discourses of the Six Groups on 'African' and 'Western'

This chapter aims to show that despite the many differences between the discourses, all the groups understand the discussion about science and faith within a wider framework in which the difference between 'African cultures' (and/ or traditions) and 'Western (or European/ French) culture' plays an important role. The two sections above offer important clues to understanding how every group made sense of this cultural setting of science and faith. In this final section we will clarify the use of the cultural difference between 'African' and 'Western' as used by the six groups. This will mainly be done by addressing the convergences and divergences on this point. We ask ourselves if intercultural framing is an adequate concept to describe what is going on in these groups – especially those from Abidjan and Kinshasa. Above we defined this concept as follows: intercultural framing is a dynamic and intentional way of making sense of a subject or theme (in this case science and faith) by relating it to

different cultural conceptions of this subject or theme. This 'sense making' can be based on certain suppositions, or even a more elaborated theoretical framework, in which different cultural influences are recognized and appreciated. However, interculturally framed or not, we at least need clarity regarding the roles of 'African' and 'Western' in the discourses. This will allow us to have an adequate understanding of the ideas about science and faith expressed in these groups, which will be studied in the next chapter.

If we compare the different group discourses in their social and political contexts, we see a confluence of factors which contribute to the 'intercultural framing'. Firstly, there is the history of colonialization which established certain patterns between the culture(s) of the colonizers and the local cultures. In the post-colonial period, the inequality between the two parties that sustained these patterns have not really, or at least not completely, changed. This implies that ambivalent and defensive attitudes towards the ex-colonizers' culture(s) and the proper (traditional) cultures are still in place, and in fact this ambivalence is expressed in every group.[83]

The (majority of the) churches represented by the participants made their contributions to this ambivalence by means of their severe criticism of traditional African cultures (although alternative theological judgements surfaced as well). This is testified to very clearly in the student discourses from all three cities and is confirmed by the academics from Yaoundé and Kinshasa. None of the participants mentioned a similar critical attitude on the part of the churches towards Western culture, although the students from Abidjan mentioned the critical attitude of the churches towards certain academic disciplines. The opposition between church and world (which sometimes evolves into the opposition between God and devil) easily adds to this ambivalent appreciation of what is called African culture as it downgrades trust in society and cultural dynamics. This is particularly clear in the discourses from Kinshasa.

The awareness of hybridity is closely related to the ambivalence concerning African cultures and traditions. This awareness was explicitly worded in both groups from Kinshasa and in the academic group from Abidjan. Hybridity was particularly related to the academic group from Abidjan because of their involvement in 'Western' science.

83 Most explicitly by Ayuk in the second research session with the academics from Yaoundé, but also by Stephane and others in the academic group from Abidjan, and Augustin in the academic group from Kinshasa. Among the students, the two tendencies in the student group from Yaoundé embody this ambivalence. It can also be found in Congo's contribution to the students' discourse in Kinshasa. Finally, the interpretation of science as 'something of the white men' and secret knowledge as 'something typically African' during the second session shows the ambivalence towards both sides.

Despite these major shared elements, the use of 'Western' and 'African' in the groups is different due to their unique situations and compositions. The opposition between the two tendencies in the student group from Yaoundé (as analysed above) dominates their discourse. Although the majority think that 'African culture' is not compatible with the liberating message of the Bible, the opposite position is also keenly defended by a substantial sub-group. The group is more united when it comes to denouncing the limited, Western perspective of science. In this dynamic, the Bible becomes the judge of all cultures. Although this helps to counterbalance the normality of the Western academy (including Western theology) and underlines a certain 'impartiality' of the Bible, it easily leads to an understanding of the Bible's message being culturally neutral. Such a view reinforces the criticism of African culture and obstructs the development of contextual theologies.

In the first session with the Yaoundé academics, the cultural difference between 'Western' and 'African' did not play a substantial role. It was only during the second research session, when Ayuk attacked science as a colonial affair that confused the people etc., that the intercultural framing of the debate on science and faith began, and a similar field of two tendencies (as was the case in the students group) was made visible. However, Ayuk's affirmative position towards African culture was not really supported by other members of the group. Nevertheless, it helped to discover how the very positive perception of science expressed in the first session was related to a critical understanding of African cultures. Martha even used a dualistic lens to distinguish between scientific knowledge and traditional African knowledge. The two tendencies in the academic group are even more opposed because they do not share the criticism of the Western character of science at university, as is the case in the student group. The opinions in this group were more outspoken and they did not give the Bible the role it received in the student group. Nevertheless, what we call the 'intercultural framing' took place in a similar vein. We conclude that the dynamics in which science and faith are discussed in the two groups from Yaoundé consists of a mix of different, explicitly Christian, appreciations and criticisms of 'Western' and 'African' culture. As we already noted above, both discourses from Yaoundé reflect intercultural framing.

The decision to use the concept 'intercultural framing' was based on the analysis of the discourses from Yaoundé. Although we alleged above that the ambivalence towards 'Western' and 'African' cultures is present in all the discourses, the question is whether intercultural framing is also an adequate and helpful qualification for what is happening in the other groups. When we turn to the two groups from Abidjan, we establish that despite sharing characteristics common in all the discourses, the dynamics here are not the same as those

in Yaoundé. The use of violence in the past under colonial rule, and especially the recent history of violence by political and ethnic groups, made the participants very sensitive to conflicts. Particularly in the academic group there was a certain fear regarding speaking about 'African cultures' because of its violent potential. Together, the effect of assimilation through science, and the argument that Christians would not share most of the magical part of traditional worldviews and therefore should be more open to scientific investigation, limits the importance of 'African cultures' in their discourse on science and faith. In their focus on epistemology and truth, both Abidjan groups seem to break away from the cultural questions that include the possibility (or probability) of conflict, violence, and regret about (a history of) assimilation. This strategy follows the same pattern as the first session of the academics from Yaoundé and appears to be a specific continuation of the assimilation. This recognition makes it easier to understand why neither the student group nor the academic group successfully included 'culture' during the final research sessions despite the participants indicating they would do so. However, downplaying 'African culture' as a theme in the discourse is not the same as blocking typical structures or logic that could be related to 'African cultures' (which we will argue in the next chapter). Nevertheless, *framing* the debate on science and faith *interculturally* does not seem to be the right term to describe the dynamics of the group discourses from Abidjan. Although there is a deep awareness of the intercultural space in which these two themes have been developed, the major strategy shared by participants in both groups is orientated towards the avoidance of an intercultural approach that would openly discuss (the differences between) African and Western culture(s).

Finally, we turn to the groups from Kinshasa. We start with the academics' discourse because of the striking similarities between the model of the students in Yaoundé and that of the academics from Kinshasa.[84] Despite the apparent similarity between the models there is in fact an interesting difference between the two. In terms of the debate on science and faith, for the academics from Kinshasa there is a direct relation between the cultural differences

84 See models YS2 and KA2 in the Annexes. The model of the students from Yaoundé, YS2, has a similar structure with a variable 'African culture' on the right-hand side and epistemological variables on the left-hand side of the model. At first sight this also seems to be the case in the model built by the academics from Kinshasa: KA2. The relation between the left- and right-hand sides of the model from Kinshasa can be qualified as 'epistemological' and 'cultural' respectively, where both sides have a typically 'Western' and a typically 'African' variable. However, the model from Yaoundé is more complex. Here the difference between Western and African can be recognized in a crucial variable on the left- ('common use of science') and the right-hand sides ('African culture') of the model respectively.

regarding (Western) 'modernity' and 'African tradition' and the epistemological distinction concerning instrumental and encompassing reason. However, the discourse of the students from Yaoundé underlines the perspective that 'African culture' should be evaluated from a Biblical understanding. This far more critical approach to African culture underlines the proper, independent position of Christian faith in its relation to culture, as understood by Enow. However, in the discourse of the academics from Kinshasa, this critical factor is not really articulated, and as a result the cultural difference between 'African' and 'Western' becomes dominant. The model built by the academics from Kinshasa reflects just a part of their discourse. Notwithstanding the more active participation of the Protestant and Pentecostal academics during the second session, they do not come up with a critical approach to traditional African cultures, as was the case in both groups from Yaoundé. The academics from Kinshasa are mainly critical about what they see as the burdens of modern (city) life. It makes sense that in a context in which people call themselves 'hybrid', the traditional cultures are less criticized. Especially during the model building session, the academics framed the debate on science and faith in a strongly intercultural fashion, which fits their hybrid self-understanding. The discourse in the student group reflected this focus on hybridity even more. Here there was no substantial critical assessment of 'African cultures', but rather an interest in how both African (in a more general sense) and Western culture(s) has shaped them 'inside' (as Congo puts it). The intercultural framing here is quite distinct from what happened in the groups from Yaoundé, where the framing was a result of the two tendencies that interacted and diverged regarding the appreciation of 'African culture'. In the discourses from Kinshasa, it is a widely shared understanding of hybridity that makes an intercultural perspective necessary.

We conclude that intercultural framing is not an adequate term to qualify the processes that took place in all the six discourses on science and faith. The strategy of the groups from Abidjan did not lead to openly discussing the cultural differences and influences, but rather to concealing these. Nevertheless, the importance of cultural differences was recognized in all the groups and are therefore important to the content of all the discourses. Although the discourses from Yaoundé and Kinshasa are (intentionally) interculturally framed, there is an interesting difference between these framings (as just explained). In the next chapter we will depart from the various strategies and framings concerning culture that we have discovered so far and will address the understandings of science and faith in the six groups.

Finally, we present a table of comparison which may help to provide an overview of the six groups:

Group (model built)	Group characteristics	Handling Cultural difference
Yaoundé Students (model YS2)	Less women; constant participation; varied disciplinary backgrounds; high ethnic awareness.	Two tendencies: one more critical towards traditional culture, other more positive; shared criticism of Western science; intercultural framing from the start.
Yaoundé Academics (model YA2)	Only last session better gender balance; strong presence natural sciences; inconstant participation; ethnic awareness.	Two tendencies: one (dominant) critical, other affirmative towards traditional culture; intercultural framing from 2nd session.
Abidjan Students (model AS2)	First session nice gender bias and lively debate; strong presencence humanities, less natural sciences; small group with constant participation; ethnic awareness but not a major theme.	Strong cultural awareness; focus on power and suppression; avoiding intercultural framing.
Abidjan Academics (model AA2)	Male dominated; varied disciplinary backgrounds; ethnicity was a minor theme.	Strong cultural awareness, hybrid self-definition; fear of conflicts; downplaying cultural differences as assimilation strategy; power and suppression dominate the discourse; no intercultural framing.
Kinshasa Students (models KS2 and KS3)	Fewer women; strong presence of technical and applied sciences; Pentecostal majority; weak ethnic awareness.	World – church divide is more important than the cultural divide; African – Western divide is discussed in relation to hybrid self-understanding and related to a certain form of intercultural framing.
Kinshasa Academics (models KA2)	No women; strong presence of theologians and philosophers; 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.

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.[2] 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."[3] 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.[4] Finally it

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."[5] 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."[6]

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:[7] "The values that are transmitted through traditional rites can absolutely not contribute to the flourishing of Christian faith."[8] In her understanding, traditional funeral rites and the Bamileke 'cult of the skull' ritual are profoundly satanic.[9]

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."[10] 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."[11] 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."[12] In order to understand this position concerning

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 P19, 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.[13] 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.[14] 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.[15] 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."[16] 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."[17] 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."[18] 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."[19] Stéphane, a Protestant-evangelical linguist, shares his personal

16 P7, 099 : "[…] car la médecine, c'est la médecine, mais c'est Dieu qui guérit." See also P7, 115 and 149.

17 P7, 178 : "Moi je pense que la foi soutient la science en son développement […]" See also P7, 212.

18 P2, 280 : "[…] Rationnel c'est l'intelligence humaine, la foi c'est la limite de l'intelligence humaine et c'est euh la connaissance de Dieu donc c'est comme ça que moi je vois."

19 P2, 286 : "Celui qui a la foi, si je comprends bien quelqu'un qui a beaucoup de foi il n'a pas de problème avec la rationalité, il est conforté dans la rationalité. Alors que celui qui est plus rationnel, il a un problème avec la foi."

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."[20] Next, Clément shares about how he prayed in the laboratory when his research was at a dead end.[21] 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]."[22] 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

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 P18, 34.

play a crucial role in both models.[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.[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.[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

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.

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.

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

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26 Modernity was part of the concept model; see figure KS1 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

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."[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.[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."[34] He explains that he does the same in his educational practices,[35] and this is confirmed by Kouassi.[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

32 P9, 55 : "[…] À un moment donné, à laisser de côté euh (murmures) sa rationalité, et donc à prier avec le malade […]."

33 P9, 60, see foot note 23 (?)

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 […]"

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 *Le lecteur de la Bible* que je leur donne avec des Nouveaux Testaments et je les invites 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 […]."

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 (…)."

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.[37] 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]."[38] 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. Princesse reacts strongly to what she understands as Emmanuel's 'dissociating'

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.[39] 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.

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.[40] 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.[41] 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."[42] 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

40 See P14, 104 : "Donc que chez nous, si je tiens compte déjà du fait que les prêtres passent beaucoup de temps à l'école, étudient beaucoup de disciplines différentes et le fait que, chez nous également on fait la promotion de l'éducation parce que les écoles et tout ça, donc forcément on nous encourage à faire de grandes études quel que soit le domaine pratiquement. C'est pour dire que euh ma dénomination encourage, enfin ma dénomination n'a pas de problème avec la science. ' And later on, P14, 288 : '[…] Donc je me dis que quelque part aussi, les anciens prêtres et pasteurs peuvent garder ces conceptions-là et n'ont pas voulu divulguer le savoir d'une certaine manière.[…] J'ai fait biologie animale à l'université, les enseignants ont tendance c'est-à-dire sa façon de faire le cours montre qu'il ne veut pas faire le cours d'une façon qui soit vraiment limpide là que les étudiants comprennent. Il veut aller vite pour qu'il reste toujours une sorte de mystère derrière la chose et et on va aussi se rendre compte qu'ils ne veulent pas travailler avec des étudiants qui sont des ethnies peut-être qu'ils n'aiment pas ou avec lesquelles xxx Je sais pas. Il y a, en fait ils ont une façon de garder un peu la connaissance là. Ça a influencé…."

41 P14, 108 : "[…] C'est vrai, il y a promotion de l'éducation exactement comme Eseck a dit, chez les protestants aussi. Mais seulement, il y a un message quand même qui même s'il n'est pas concret revient, on voudrait bien que dans l'avancée, dans la science, on puisse faire un certain tri, on reconnait que des aspects de la science peuvent nous écarter de l'acceptation totale de la foi chrétienne. Donc il y a un message qui n'est pas très officiel mais qui est connu. On sait qu'il y a des gardes fous, on veut que tu places tout ce, l'école que tu fais, tu dois passer l'école de Christ. Ce qui fait que très souvent aussi, on se rend compte que des personnes dans le cadre de l'église qui n'ont pas, je sais pas s'il faut dire qu'ils ne sont pas très ancrés, qui ont fait beaucoup d'école sont superficiels parce que il y a dans la science des éléments qui peuvent malheureusement dérouter."

42 P14, 121 : "[…] Mais en réalité, on constate, quitte à ce qu'il y ait une certaine prépondérance, c'est une certaine suprématie de l'élément spirituel. C'est vrai qu'on s'intéresse à la science, mais juste de manière accessoire, elle n'a pas véritablement autorité […]."

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."[43] 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.[44] 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.[45] 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."[46] 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 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 P11, 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 P11, 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'aviez 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.[54] 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.[55]

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.

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 GBEEC 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

note that Emmanuel and Nadège, 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 ecclesial 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).[56] 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.[57] 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.[58]

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.[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 *églises du réveil,* the emancipation of Pentecostal Christians is a crucial topic.[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

59 See Chapter 4 for the background of the rivalry between the Beti and Bamileke.

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'

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 were 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 effects 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.

CHAPTER 6

Interculturation and Catholicity as Keys for Interpretation

In the final two chapters of this study, we want to explore the contribution of the discourses in these three university cities in French-speaking Africa to broader debates in intercultural theology, and to the science and religion debate. This is grounded in convictions concerning the catholicity of the church and the catholicity of theology in that they are intended to speak to the whole church and the whole of humanity. Intercultural theology holds that theological reflection is on the one hand localized and embedded in particular social contexts (cf. Schreiter 1985), but on the other hand is part of a worldwide conversation with the global 'catholic' community of Christian communities (cf. Schreiter 1997). It is also catholic in the sense that it invites all of humanity to share in the grace it has discovered in the encounter with the triune God.

This study has confirmed the hypothesis that debates on the relationship between science and religion are geographically and culturally located. Yet, there is also a 'catholicity' to the worldwide scientific community that engages in international and intercultural conversations. Though scientific discoveries are always made in particular settings and embedded in historical traditions of research, they are presented to the world 'with universal intent' (Polanyi 1962). Given that both science and faith are catholic in scope, this is equally the case for the science and faith debate. Borrowing a term that has become common in intercultural theology, we want to propose that the science and religion debate is inexorably 'glocal': it is locally embedded, but it shares in 'global flows' (Schreiter 1997, 15ff) and engages in a global dialogue (Engelsviken 2011; Ott 2015; Küster 2016).

In the final chapter, we will concentrate on the contribution of the discourses studied to the broader science and faith debate. However, before we get there, in this chapter we focus on the contribution of this case study to the wider debates concerning the nature of the inculturation of Christian faith and theological discourse, and intercultural theology as a discipline. Both chapters are equally and consciously theological.

This chapter looks at how these discourses allow us to study what we might call 'the anatomy of inculturation' (cf. Magesa 2004). We recall two specific characteristics of our approach (as presented in Chapter 2) that will mark the further elaboration of this chapter the theological focus and the intercultural

dynamics. In the first place, we underline the theological engagement of our perspective. 'Inculturation' is generally used in the literature to describe one main aspect of the contextualization process: the interaction between the Christian faith and local, cultural, and religious traditions (Bosch 1991, 447ff). The methodological tools of cultural anthropology and other social sciences are of great value for a theological study of inculturation, but theology adds its specific focus. "From the Christian theological perspective, inculturation is understood to be the process whereby the faith already embodied in one culture encounters another culture" (Magesa 2004, 17). In this definition it is the reference to 'faith' which makes it theological if faith is understood not only as a human religious phenomenon, but as the faith of the Christian community which has the self-revelation and salvific action of the triune God as its object, and is constantly in need of correction with regards to the question of how well it responds to this reality. Additionally, as we already argued in Chapter 2, the lived faith of the Christian communities is not understood as merely human but also as reflecting and revealing the work of the Holy Spirit. Secondly, we recall the broadening of the perspective from the contextual to the intercultural. Below, we will therefore argue that the term 'interculturation' better suits what is going on in the studied discourses from francophone Africa.

Therefore, in this chapter we relate the case study to the debate on in(ter)culturation and ask what this case study shows about the nature of these processes and what this implies for the understanding of intercultural theology. In the first part of this chapter we will provide a theoretical framework that enables the interpretation of the discourses. In most of the discourses the participants understood their engagement in the debate on science and religion as part of a complex interaction between Western science, African traditions, and Christian faith. Starting with the understanding of anthropologist Joel Robbins, we develop a framework that offers some important keys for the interpretation of this debate on cultures and influences. In the second part, building on this framework, we concentrate on a specific element of the influence of Western cultures and relate our findings to theories about what are called alternative modernities. The question of whether the discourses studied might point to such an alternative modernity is highly relevant to an intercultural approach to the science and religion questions: does Western modernity, in so far as it is deeply shaped by modern science and certain attitudes to science, represent the only or normative way of relating science and religion? It also has implications for the understanding of intercultural theology, which, as a discipline, is deeply embedded in the western academic context in which it developed (Ustorf 2011; Küster 2011, 110; Toren 2015c, 130ff). In the

final section, we will explore what insights the study of these intercultural exchanges evidenced in the discourses might contribute to our understanding of intercultural theology in general. We will argue that a catholic approach can do justice to the characteristics of interculturation as elaborated in this chapter.

1 From Inculturation to Interculturation and an Intercultural Theoretical Framework for Interpretation

The study of this concrete example of the inculturation of Christian faith amongst university students and academics in French-speaking Africa offers unique insights into the inculturation process. As Laurenti Magesa has noted, theological studies of inculturation are often "largely theoretical, rarely benefitting from evidence gathered from empirical research" (Magesa 2004, 29).[1] Of course, many of these contextual theological proposals are themselves forged through profound engagement with local communities, such as Vincent Donovan's account of his sustained theological dialogue with the Masai community (Donovan 1985; Bevans 2002, 64ff). Yet, they do not themselves present insight into the actual processes of inculturation in the wider community, as Magesa later provides for East Africa (Magesa 2004). Compared to Magesa, our study adds a layer of complexity. Where Magesa's empirical study focusses on the interaction between the Christian faith and African religious and cultural traditions, our context and interlocutors will add a third cultural component of Western modernity in the form of Western academic traditions. For the study of inculturation to be relevant today, this extra layer is crucial. Many of Benno's students from French-speaking Africa in Bangui (Central African Republic) found several proposals for African Christian inculturation theology alienating, because they seemed to contextualize the Christian faith in relation to a world that no longer exists. Such proposals mainly examined the question of how to contextualize the Christian faith in relation to Africa's pre-colonial cultural and religious traditions. For the students and academics in the university cities under consideration here, their African identity was crucial to them, but the traditional world of their grandparents sometimes felt strange, especially for those in Kinshasa. They looked for an inculturation of the faith in their

1 The otherwise very helpful overview of Steven Bevans *Models of Contextual Theology* (Bevans 2002) includes only normative theological proposals for how contextualization should happen.

contemporary context as Africans with deep roots in pre-colonial traditions yet living in a rapidly urbanizing, modernizing, and globalizing culture.

2 Understanding Interculturation

Starting from the concept of inculturation, a term which is widely used, we argue that the process of appropriation is better described as 'interculturation', a term already introduced by others (Grenham 2001). The term 'inculturation' can suggest that one cultural reality is adapted to another, while the latter remains the same. The language of the inculturation process facilitates the image of Christian faith that is 'translated' into the language and thought forms of a receiving culture, while this culture fundamentally remains identical to itself, as in certain versions of a 'translation model' of contextualisation (Bevans 2002, 3ff; cf. Toren 2015b). Or rather the reverse, Christ is seen as the 'transformer of culture' (Niebuhr 1951, 190–229) in a process in which the Christian message remains unchanged. As Martien Brinkman has shown, the encounter between the Christian message and a new cultural environment always leads to a 'double transformation' in which both realities are transformed (Brinkman 2009, 17–23). We think this process of mutual transformation is better captured in the term 'interculturation'. Furthermore, this term is better equipped to deal with the fact that there is not simply an encounter between two cultural realities. As we have seen, the participants not only mention Western (science) and African (tradition) but refer to a third influence as well: Christian (faith). In the next section, we elaborate on how these dynamics can be recognized in the discourses.

However, before we turn to the proper role of Christian faith in the interculturation process, we point to an important element of interculturation: its reflexivity. Henning Wrogemann is another author who, like Magesa, points to the importance of inculturation (or rather 'appropriation') processes as they actually happen and not only as missionaries and theologians believe they should happen (Wrogemann 2012, 279ff). He notes a contrast when he describes the missionary and theological discourse as reflexive, but inculturation by the local community as 'intuitive', or as happening, for example, through dreams and visions, as exemplified in African Independent Churches. It is true that much appropriation of the Christian message will happen intuitively, either through dreams or in much more down to earth ways, because the first generation of local evangelists and catechists understood the message of the missionaries in terms of their own cultural framework and transmitted it in ways they believed would make the most sense to their hearers (Sanneh 1983). However, local reception, is not just intuitive.

3 The Role of Christian Faith in Relation to Culture

In these dynamics, the Christian faith is indeed a factor of its own in this intercultural interaction. In Chapter 3, we already intimated, with reference to studies by Lamin Sanneh and others, that the cultural interaction between Europe and Africa in the modern era cannot be limited to the encounter between Western cultural imperialism and colonisation on the one hand, and African traditional cultures and society on the other. Though the Christian faith was mainly mediated through Western (European and European- American) voices, this gave African Christians access to the Bible, which, through translation, became their own and could be used to criticise culturally Western Christian traditions received through the missionaries (see Chapter 3).

However, what we have called 'Christian' (faith) should not be thought of as one culture among others. We believe that such a presentation would not do justice to the way Christian faith relates to culture, and such an understanding would also make an intercultural theological approach a very confusing enterprise. We think the cultural anthropologist Joel Robbins' explanation of the complex way Christian identity is related to culture offers an important step forward for the proper understanding of the role of Christian faith. In a recent article on conversion to Christianity amongst the Urapmin, a tribal group in Papua New Guinea, Robbins notes that the recently converted Urapmin Christians continue to engage in traditional practices that stand in tension with their newly acquired Christian faith, such as the sacrifice of a pig for the healing of a severely ill child. Although the Urapmin are themselves conscious of tensions in cultural practices, and though some of them would not agree with this practice, the traditional custom itself is reinterpreted from a Christian framework. Thus, the pig refers to the sacrifice of Christ and the offended spirits are not appeased and negotiated with but are rather bound and expelled. Below, in the context of hybridity, we will expand on Robbins' remark that what happens here can more adequately be described by "stronger, more 'modern-looking' models of culture – ones that see cultures as having a real role in shaping people's lives" (Robbins 2017, 37). We already referred to Robbins' position in Chapter 2.

These Urapmin Christians relate to their traditional culture in the light of their new Christian value system, and therefore integrate traditional practices in as far as they can find a way to reconcile them with their new faith. This does not mean that there are no tensions between their Christian faith and traditional practices, but that this tension is simply part of an ongoing conversion process: Christianity as a religion sets up 'duplex cultural formations' (Robbins 2017, 40). Indeed Christianity always comes in as a critical voice in relation to

an existing religion and cultural realities, with which it enters into a complex process of negotiation. From this understanding it becomes clear that although Christian faith is an important cultural factor that encourages debates on cultural practices and leads to the transformation of practices, etc., it is no 'culture' on its own, but can only be understood in relation to other cultural traditions. The process of negotiation performed by the Urapmin shows how the new practices and meanings are definitively different from the cultural expressions they stem from, but, at the same time, are only understandable from the original cultural context. This implies that Christian faith in a way presupposes a specific cultural context that is not Christian; it cannot function as an isolated cultural element but always needs a cultural surrounding to find its forms and expressions. From this understanding it is still possible to use expressions such as 'a Christian culture', as long as this term is not understood in an absolute way. Ultimately, all Christian cultures include cultural heritages of non-Christian pasts. For example, medieval Europe represents a Christian culture built upon Roman, Celtic, Germanic, and other cultures, that were not annihilated but converted and entered into conversation with. This therefore implies that the conversion process never comes to an end, but is an ongoing process.

This understanding fits the theological perspective of the Ghanaian theologian, Kwame Bediako, who builds on Harold W. Turner's understanding of the fundamental role of primal religions in shaping African Christianity. Comparing African Christianity with the early church helps to show that the adequate basis for understanding what is going on theologically is not the interaction between Western and African culture and values but "Christ … conversing with the soul of Africa" (Bediako 1992, 6–7). This perspective is especially interesting to us because it pays attention to the activity of God in this process of conversion which fits our understanding of intercultural theology as explained in Chapter 2. Bediako interprets the development of African Christian theology in the post-colonial era as a search for identity. He himself wants to contribute in this search for an identity as 'African Christians'. Bediako deeply identifies as Christian and as African. He cannot step away from his African identity, because he experiences it (using a somewhat awkward term) as an "ontological past" in order to indicate that this past is not *passé*, but still part of the present (1992, 4; cf. Bediako 1984, 88). Yet, for Bediako these poles of Christian faith and African-ness are not of equal weight. He perceives himself first as a Christian and – though deeply – only secondarily as an African (Bediako 1992, 32 and 441). Therefore, both poles do not stand in an irreconcilable opposition, because the two are integrated through a process of 'conversion' through which the Christian finds a new identity in Christ (1992, 31ff). Bediako links the identity of the

African Christian to the notion of the 'integrity of conversion', a notion he borrows from the mission theologian Kenneth Cragg: the converted person is the same 'I' before and after conversion, yet not without discontinuity and critical reintegration of the past (Bediako 1984, 88; 1992, 4; 1995b, 258; cf. Cragg 1980; Toren 1997). We recognise Robbins' notion of the Christian identity as consisting of an ongoing conversion in relation to a pre-Christian past and the surrounding world through which it necessarily relates.

Together, Robbins, Turner, and Bediako point to the crucial role of conversion for the understanding of interculturation. In agreement with Bediako, we underline the activity of God in the conversion. This means that transformations and changes are crucial markers that help to identify what Christian faith contributes and what God is doing culturally. However, these transformations are not just 'practical solutions'. Feierman and Janzen's example of the transformation of the understanding of illness and health in Botswana show that these transformations are processes that take time and that find their place in the dynamics of intercultural relations:

> In Botswana, missionary healers of the early twentieth century learned to speak of the body in mechanical terms of digestion as a 'manufacturing plant' and the heart as a 'force pump', and this too, served to locate illness in the individual body (consisting of quasi-mechanical parts). This strategy did not, however, constitute a thoroughgoing attempt to secularize medicine, since illness was linked to sin and healing to God's mercy. The result was, however a transformation of older African ideas about links between illness and impropriety or hurtfulness. The key change was that the sinner as described by the missionaries, was an individual, extracted from his or her community…Christian medical treatment as extraction from community was, however, only a transitional moment.… In Botswana *baruti,* African evangelists, introduced group prayer for illness and 'dealt with troubled or sick people as members of the Christian *community',* in a way that had not been a part of missionary practice.
>
> FEIERMAN & JANZEN 2011, 242.

4 Characteristics of Interculturation in the Discourses on Science and Religion from Francophone Africa

The anatomy of the interculturation process that becomes visible in the discourse on science and religion among the groups studied allows us to note a

number of characteristics of this specific process that may also shed light on comparable processes elsewhere.

First, we point to the triangular relationship in the interculturation process between Christianity, African traditions, and Western modernity. There have been multiple studies analysing the mutual transformation of the Christian faith and African traditional culture in the process of the encounter between African and Western traditions. For example, in the process, physical well-being has become a much more important component to the Christian message, while African culture has opened up to a catholic and missionary religion (f. ex. Magesa 2004; Brinkman 2009, 201–240; Omenyo 2002). The discourses studied have shown that modernity, or more specifically modern science in this case, becomes equally part of this interculturation process. African cultures encounter Western science, in a context in which this Western science is moving away from the French notion of *laïcité*. After all, the impact of *laïcité* in the discourses is limited and mainly indirect as we show in Chapter 5. Thus, Western science becomes integrated with other understandings of life such as in healing practices that combine Christian prayer, the modern hospital, and traditional African therapies. This is also the case at the university, where Western science is perceived as creating a privileged social structure in the lodges of the Free Masons and similar groups. Conversely, the scientific training of the students impacts their appropriation of African cultures. For example, they can deeply identify with their cultural background, yet criticize the secrecy attached to much traditional knowledge in light of the Western scientific ideal of public knowledge (see the comments of Emmanuel, second research session with students' group of Abidjan, Chapter 5).

Second, in the discourses studied, there is an ongoing critical reflection on how to best appropriate and evaluate Western science, received Christian traditions, and traditional ideas and practices (Wrogemann 2012). Of course, this critical reflection is provoked by the setting of the Group Model Building sessions, but, reading these dialogues, one has the clear sense of being invited into a critical reflexive process that has been going on for a long time. It would be wrong to suppose that this is the prerogative of students trained in a modern university with Western roots. For example, the interventions of the Bamileke in the Yaoundé group show how important education is for them as a group. At the same time, a lot of participants from nearly all the groups refer to the resistance towards science in their traditional cultures and in the churches. This presupposes different perspectives within ethnic and religious groups which is the result of a reflexive process that is an essential part of interculturation. Reflexive appropriation is therefore not the prerogative of the Western contributors to the contextualisation process.

Third, we point to the proper place of Christian faith in these dynamics. The intercultural process becomes even more complex, but also richer, when we realise that the groups do not relate to Western science as Christians or as Africans, but as African Christians, thus allowing them insights that would not be equally accessible to other groups. These insights are obvious in their reflections concerning science as developed on the one hand on Christian foundations and on the other hand tainted by, and suspect because of, colonial history. For example, as argued by the academics from Abidjan, the criticism of Western scientific reductionism comes forth from what is seen as a typical African way of dealing with the spiritual dimension of life. This African dimension is combined with a typical Christian understanding of the Holy Spirit, who receives an important place in their scientific work. This is more generally visible in the way that the participants tend to identify primarily as Christians, secondarily as Africans, and least with modern science.

Through the lenses of Robbins and Bediako the crucial transformative role of Christian faith can also be traced. This principle is even expressed in the research sessions. Enow, a theology student from Yaoundé, argues that the Bible receives a special place because it 'criticizes all cultures', including European and African ones (see Chapter 4 and P19, 31). More generally, the discourses reveal that a completely secular understanding of science, as received through education at a secular university in a *laïcité* context, is transformed into a deeply Christian understanding in which science itself receives an important position as a place of revelation – at least in the academics group from Yaoundé.

This brings us to a fourth point. The focus on transformation also helps us to see how this Christian understanding makes God a participant in science; not only indirectly, as revealing through nature the Divine greatness and wisdom, but also directly, when God is understood as the real Scientist. In the words of Clément, the chemist from Abidjan: we just interpret, God really knows. Yet, also in human science, which is more limited, God's activity is leading. The academics, and especially those from Abidjan, made it clear how they understand their academic work as guided by the Holy Spirit (Chapter 5). This Christian engagement also underlines the personal approach. The scientists' struggles and solutions are also revealed when God's active participation is taken into account.

The attention paid to the role that God plays underlines what we mentioned in Chapter 2 about the role of culture: "everything is culture, but culture is not everything." In the discourses we studied, culture does not dominate the whole perspective; there is ample room for Divine action. The conversion of culture therefore reveals the activity of God.

5 An Alternative Modernity?

In the foregoing section, we explained that we are specifically interested in transformations of cultural patterns. As science in its nineteenth-century Western understanding is a typical modern phenomenon, we now focus on the significance of these discourses for the study of the global spread of Western modernity. The central question is therefore to what extent the discourse on science and religion in these three cities points to the presence or possibility of a parallel or alternative modernity. The notion of 'modernity' is of course used in multiple fields and may point to different realities when used in varying contexts such as in modern social relations, modern art, or modern theology. Modernity, as a broader concept for a social constellation, has many dimensions. Modernity gives science a specific place and authority. In Chapter 5 we argued that this position makes it prone to develop further toward cultural scientism. Therefore, in the context of this study the question is whether the approach to science and religion in the studied discourses might present us with a competing or counter-modernity, and whether this invites us to critical theological reflections on the way the science and religion debate has been framed in the modern North Atlantic world. This will also lead us to discussions concerning cultural hybridity, a related term used by the research population.

6 Parallel or Alternative Modernity

In an overview article, Bjørn Thomassen (2012) distinguishes a range of terms used in the debate on modernity in cultural anthropology. Terms like 'multiple modernities' or 'parallel modernities' stress plurality and do not make one form of modernity (i.e. Western) the standard as terms like 'alternative' or 'competing' or 'counter-modernity' do. Yet, for the analysis of the discourse studied, 'alternative modernity', or a parallel term, is more adequate because the students and academics concerned are not developing a parallel modernity in isolation from the West, but are consciously and constantly referring to Western modernity, which they experience as a mixed blessing. It is not the case that they simply find themselves in a world of global flows in which some modern influences might be Western while others come from other origins. Modernity is predominantly perceived as a Western cultural reality that bears positive and negative consequences. This ambiguous attitude towards Western modernity is most evident in the discourses of both the students and academics in Kinshasa but can equally be detected in Abidjan and Yaoundé.

Amongst the academics in Kinshasa, the critique of 'modernité' in a very broad sense was, for example, related to a link between modernity and certain moral problems evidenced on billboards and in slogans promoting beer and encouraging new relationships between the sexes.[2] More important for our discussion is the equation of modernity with reductionist attitudes towards realities that do not take the spiritual world into account, such as in the practices of education as confirmed by the academics from Abidjan (Chapter 5, second session). In the group of academics from Kinshasa, the medical doctor, who turns to prayer when she suspects a spiritual cause behind an illness is therefore praised for her willingness to go against what is perceived as a negative side of modernity.[3]

However, the attitude towards modernity is not entirely negative. Especially in the discourses from Kinshasa on the criticism of modernity, we have several appraisals of the blessings of modern life. In practice, the students and academics embrace many of the gifts of Western modernity, as is clearly expressed by the students from Kinshasa (see Chapter 5,). They live their lives in modern urban centres, using modern technology and transportation. On a more philosophical level this is worded by the noteworthy voice of Augustin, the Roman Catholic philosopher. He pointed out that many modern values, such as equality ('égalité') have Christian roots and that in that respect the problem is rather that we do not practice them enough.[4] In this respect, the discussion of the notion of freedom ('liberté') amongst the students in Abidjan is interesting. In this African city, deeply influenced by modern France with its values of 'liberté, égalité, and fraternité' (freedom, equality and brotherhood or fraternity), this could easily be seen as a modern value, but instead here it is closely associated with the Bible: it is a fruit of the Bible that people are liberated from various enslaving traditional African customs.[5]

2 P12, 127 : "Les sociétés, les entreprises, les publicités en quelque sorte, ça réduisent aussi la foi aujourd'hui à l'église; quand je regarde les tableaux qu'on est en train de placer euh, les publicités, il y a des termes et des slogans (xxx) la tradition (xxx) parce que ça a une signification péjorative et puis tout a (xxx) on voit l'homme, on voit la femme, on voit la bière et puis va tout temps (xxx), voyez c'est la modernité qui nous a amené ça, en quelque sorte qui est en train de détruire."

3 P12, 68 : "[…] Et ce n'est plus la médecine, ce n'est plus la science et au contraire c'est euh la foi en Dieu, la croyance et euh le médecin après avoir utilisé la modernité et les instruments tout tout tout et tous les examens, il n'a rien trouvé, c'est qu'il faut des brides à la foi pour que la personne soit sauvée et quand il a résolu ce problème de cette manière, la solution a été trouvée. Donc science oui mais dans la foi, on peut toujours réussir."

4 P12, 128 : see Chapter 5, footnote 55.

5 See also the model built by the students from Yaoundé in the Annexes (figure YS2), which relates the Bible positively with liberty and relates liberty negatively with African culture.

7 Hybridity

The question of whether these discourses present us with an alternative modernity leads us to the question of hybridity, a notion central to postmodern understandings of culture in a globalising world (Tanner 1997, 57f; Schreiter 1997, 74ff). The cultural formations represented in the intercultural interactions in these discourses are obviously hybrid in a weak sense: they are new cultural constellations that develop at the confluence of different cultural inputs. The question is whether they are also hybrid in a much stronger sense: do they represent dual religious or dual (and in this case possibly triple) cultural systems, in the sense that different cultural systems are practiced side by side without proper integration? Such double belonging can be discussed specifically in reference to religious belonging, thus leading to discussions of syncretism (Schreiter 1985, 146ff; Tan 2010). However, various cultural systems can equally exist together with people belonging to two cultural spheres that represent practices that are, or seem, mutually contradictory.

If the discourse studied here only presents us with dual or triple cultural systems that exist side by side without proper integration (what we would call 'strong hybridity'), the discourse could not present a view to an 'alternative modernity'. Hence, in that case Western science representing modernity would still stand relatively on its own without proper engagement with alternative insights and practices. From the perspective of certain radical atheist interpretations of science this would necessarily be the case. If, as Richard Dawkins claims, modern science has shown belief in God to be a delusion (Dawkins 2006), every combination of science with religious practices presupposing belief in God or spiritual beings in Europe, Africa, or elsewhere, would be expressions of a problematic junction between two irreconcilable thought systems.[6] Yet, even from such a radical understanding, one cannot deny the possibility that in concrete lives, science, religious convictions, and certain cultural practices could exist side by side in unresolved tension or in uneasily separated compartments. Do the discourses encourage such an understanding, representing strong hybridity?

There is sufficient evidence in the discourses to counter such an interpretation. Take for example Espoir, a Pentecostal professor of mechanical engineering in Kinshasa, who suggests that this is a common view among many Africans:

6 Although most scientists and theologians involved in the science and religion debate would propose much less combative and exclusive relationships between science and religion, this is equally true for all approaches that presuppose a separation of science and religion. See for example the position of Taede Smedes, presented earlier in this and the former chapter.

"(O)ur brothers, who have not had the possibility to study at the university [perceive us as] hybrids. We respect science on the one hand, but I myself still respect the tradition…I am convinced that I should pay the bride- price…I therefore have the tradition in me and I also apply science." Nevertheless, he does not agree that this constitutes a hybridity in the strong sense: "Me, personally, I don't see an opposition here … evidently there are places where reconciliation is not possible [but] I have reasonably well reconciled even the science that I learned at the university, furthermore our traditions, family, and all such things."[7] As the quote shows, the need for reconciliation is not just an intellectual need, but also a practical requirement.

8 Alternative Modernity and Ongoing Conversion

Let us return to the question of whether the discourse studied presents us with an alternative modernity. With respect to this study, the question can be narrowed down to: do these discourses present us with an alternative modernity in so far as Western modernity is shaped by a certain understanding, a certain practice, and a particular weight given to the modern science? Our material is too limited, and the social relationships in the cities studied are too much in flux, to answer this in the affirmative. We may, however, indicate a number of insights that point to alternative approaches to modern science that indicate seeds of an alternative modernity that may be taking shape. Finally, we will relate this approach to the perspective of Bediako and Robbins that we embraced above. We presume that the emphasis on conversion helps to find more specific aspects of the alternative modernity as presented in the discourses.

In the first place, science is presented as having a limited scope in the explanation of reality. To use the expression of Clément, the chemist from Abidjan: science is human interpretation, no explanation. This position wants to combine a respect for modern science with a non-reductionist attitude to reality that allows for the influence of both God and other spiritual powers on natural processes. Some might see this as an expression of a hybrid worldview in the

7 P12, 142 : "Donc ils sont perçus par les autres sont nos frères qui n'ont pas eu cette possibilité d'aller suivre les études à l'université donc on est comme des hybrides (xxx) la science, d'un côté nous gardons, moi-même je garde encore la tradition essaye de garder, (xxx) je suis convaincu, je dois respecter la dot, il faut payer ce qu'il faut payer chez les hommes, donc la tradition je l'ai en moi, la science aussi je l'applique. Moi personnellement je n'ai pas, je ne vois pas d'opposition entre, en tout point évidemment il y a des points où on peut pas concilier, moi j'ai concilié assez bien jusque-là la science que j'ai apprise à l'université, puis nos traditions, la famille tout ça."

strong sense: an effort to combine traditional African explanations of disease and other natural phenomena with natural explanations and treatments.

However, this combination leads to an alternative perspective to some Western understandings of modern science, such as a positivist orientated approach. For the research population, however, this does not represent a 'God of the gaps' view. Adama, a student from Abidjan, indicated that science itself is a gift of God who created this world with its natural processes. The openness to divine action is rather a consequence of a recognition of the multi-layered nature of reality, in which disease can not only have physical and psychological causes and solutions (as may also be recognised in Western medical science), but also spiritual ones (see Chapter 5, cf. Hiebert 2009, 127–159). The question concerning this multi-layered quality of natural processes will therefore be part of the intercultural debate on science and faith.

We underline the specific relation of this understanding of the limited scope of science to its values. Incidentally, we do not deny that a lot of scientists from the North Atlantic might share this modest understanding of science, although this is not in line with the tendency towards scientism in today's Western societies. In the discourse, modern science is not treated as an independent value system, but as a reality to be appreciated and valued from a broader perspective, in this case from African Christian faith. These discourses reveal that in this context there seems to be more cultural and mental space for such a critical valuation than is the case in current-day North Atlantic cultures. The first reason that there is more space is given to the fact that science is more suspect as a cultural force because of its association with colonialism. The second is that the discourses seem to be devoid of scientism as a cultural reality. As we saw in Chapter 5, many Western Christians may deny 'scientism' as a philosophical viewpoint that makes modern science the norm of what can be known or even of what is real, but a cultural form of scientism is much more widespread. As we argued already, science takes on religious features. It is the starting point and the norm to which religion must in one way or another conform. The absence of this cultural scientism in these African discourses is, for example, shown in the models by the variables that indicate communal values. It allows for much more scope to evaluate science from a community perspective within an overarching, in this case Christian, framework and value system rather than the inverse. One does not need to be able to shape science entirely from a Christian perspective in order to live in this 'duplex cultural formation' (Robbins) with a coherent Christian identity.

Second, above we argued that the 'alternative modernity' approach can be distinguished from the one that focusses on 'hybridity' (at least in its strong sense) by the fact that the first proposes a different way of dealing with

modernity than in the West, while the second points to the participation in two different cultural realms that exist together without an integrative perspective. We alleged that the way the discourses deal with science does not justify the conclusion of (strong) hybridity in the sense that the participants equally participate in a traditional African 'system' and in a 'Western' system. However, this last- mentioned possibility cannot be denied completely. For example, during the Group Model Building session in Kinshasa, the academics oppose the Western, scientific approach to the African approach, which is directly linked with Christian faith. Maybe because of this double perspective, in this group the concept of 'hybrid' was also used. The suggestion of this discourse is that as a scientist one participates in both. However, this tendency is not dominant. Also, in the discourse of the academics in Kinshasa, and even more outspoken in the discourses of the groups from Abidjan, the idea that Western science and Christian faith and African traditions are complementary, and part of a bigger unity, is dominant. This approach was qualified as typically African, particularly by the students from Yaoundé. In relation to the abovementioned distinction between alternative modernity and strong hybridity, we can say that the traces of strong hybridity in the discourses are not prevailing. Therefore, what is taking shape in the discourses points more convincingly in the direction of an alternative modernity. This is a direct consequence of the broad consensus regarding the option in which science and faith are understood as belonging to an overarching whole (see Chapter 5).

Finally, we point to the specific role of Christian faith in the way the different cultural influences are related. As indicated before, the three main influences, African traditions, Western culture, and Christian faith, do not exist together as equally important for the identity of the students and academics concerned. As became particularly clear in the discourse of the students from Yaoundé, at a conscious level the participants understand themselves primarily as Christian, and from this perspective they relate to their African cultural and religious traditions, and to Western scientific practices. It is important to note that this research took place in the context of GBU. This Christian environment has certainly influenced this outcome. Nevertheless, we think the underlining of the Christian identity is a genuine aspect of the debate. The complexity of their understanding of science and faith is not only because their Christian faith necessarily relates to a pre-Christian past. It is also related to the fact, noted by Robbins (2017, 47f), that part of the Christian faith itself is the challenge to relate to a 'world' that does not share the understanding of life and the priorities that characterise the Christian faith. Above we quoted Robbins (2017, 40) when he states that Christianity as a religion sets up 'duplex cultural formations'. This is equally true for the students and academics in our

sessions: they do sometimes experience the tensions with the surrounding world as difficult, but they do not consider this at odds with their Christian faith, but rather a part of it. The discourses from all the three cities show that from their African Christian engagement they criticize and welcome both Western science and traditional cultures. The discourse of the students from Kinshasa offers an interesting example of this because there is this double evaluation of traditional and modern techniques. The students and academics of our research live in much more open social environments than the Urapmin Christians of Robbins' research. Whereas the Urapmin Christians live most of their lives within a single village community in which most aspects of life are shared, the participants of this research live different aspects of their lives in different communities with their own value systems. Yet, the research does show that the intercultural relations between the three influences identified by the participants do not necessarily result in strong cultural and religious hybridity. On the contrary, the discourses of the groups attest to a search for an integrated and overarching Christian perspective that promotes an ongoing conversion of culture. The transformation, so typical of this perspective, that is proposed in the different groups concerns the understanding of the modern concept of science, more specifically as transmitted in the French notion of *laïcité*. From the perception of the research population, science should not be separated from the other domains of life but integrated in a broad perspective in which Christian faith and communal ethics play prominent roles.

9 Catholicity and Contextuality in the Science and Faith Debate

From the beginning of this study, we have indicated that we have engaged in this exploration in order to allow the voice of French-speaking Africa to be heard in the global science and religion debate. And, because this global debate is so strongly dominated by North Atlantic voices, allowing this particular voice to be heard contributes to the deconstruction and reconstruction of the North Atlantic debate as culturally located.

Nevertheless, it is not obvious that contributions from such a particular cultural and geographic setting can be heard in the global debate. The difficulty of setting up such a conversation may well have roots in characteristics on both sides of the intended conversation, as the final section of Chapter 5 suggests. We can point to the academics who are used to the universalist language of scientific discoveries and the universal truths of religion on the one hand and the historical and anthropological approaches that locate the science and

religion debate in particular contexts on the other. In the next chapter, we will situate our research in between these two tendencies.

From our understanding, the catholicity of both Christian theology and the scientific enterprise in general is therefore crucial: insight gained within specific historical settings and unique laboratories are shared 'with universal intent'. In the final section of this chapter, we build on the value of intercultural theology as introduced in Chapter 2 for the understanding of our research, precisely because of its reflections on the particularity and catholicity of theology. This will also deepen and flesh out the understanding of intercultural theology introduced in Chapter 2 by asking what understanding of intercultural theology can do justice to these discourses and their contribution to a global intercultural theological exchange.

10 Catholicity in Intercultural Theology

As indicated, the participants of the discourses were well aware of the impact of the different aspects of the cultural setting and 'force-field' in which it took place. Yet, in this field, they identified foremost as Christians. This understanding facilitates the role of Christian faith as transforming culture, which we developed above with the help of Bediako and Robbins, and this is central to our understanding of intercultural theology. The participants' reflection on their identity is closely related to what Bediako wrote about Christian identity. In his understanding, this identity relates to the decisive events of Jesus of Nazareth's crucifixion and resurrection, which revealed his 'universal significance' as the Son of the God and the Saviour of the world (Bediako 1996, 38). This reference to Jesus of Nazareth therefore plays a similar role in his understanding of his African identity as to that which the Bible plays in a number of the discourses that we studied: it is the vantage point from which all other cultural expressions are critically judged and given their place. The universal meaning of the Christian faith is therefore not given with some presupposed position or anchor outside of culture or history, but because this one person, his death and resurrection, and the Scriptures that testify to these events, are believed to be of universal significance. The consequence of this highly personal and historical focus makes the cultural location of theological reflection not only important in relation to the content of the Christian message and the specific thought forms used to express it. It is also culturally located because Christian theology comes forth from Christian praxis and is directed toward praxis.

Intercultural theology is therefore concerned about faithful *performance* and faithful *speaking* and *thinking* (see Vanhoozer 2005 for example). It is

concerned with wholesome living and this wholesome living has contextual traits in that it aims to work itself out in a variety of contexts addressing multiple contextual challenges.

From such an understanding, Christian theology, and more specifically intercultural theology, is by nature catholic in its intention as well as in its local expressions. We understand local theological conversations as part of a global exchange within the worldwide church in which they draw on insights from others, and themselves contribute to wider conversations, in order to arrive at a growing understanding of God and God's relationship with humanity. Christian theology is also catholic in an even wider sense, since, because Christians believe that God's love is directed to the entirety of humankind, Christianity is a missionary religion that is intent on sharing this message universally.[8]

Yet, for the crucial importance of the historical and local persons and events, though Christian theology is catholic in scope, it is at the same time deeply culturally rooted and therefore contextual. Just the central belief in Jesus Christ as Lord was initially expressed in the conceptual framework available in Second Temple Judaism. From there, its message was soon translated into other culturally embedded languages and conceptual frameworks, such as the *koine* Greek of the Hellenistic world. When Jesus of Nazareth was proclaimed in the Hellenistic world, his title Messiah – or *Christos* in Greek – did not make the same sense and have the same appeal as in the Jewish context. Thus, the title *kurios*, or Lord, became more important. This amplified the message proclaimed but, at the same time, influenced the meaning of *kurios*. Now 'lordship' could be used with reference to Jesus of Nazareth, it could acquire new meanings that it did not have before. Beforehand, it was inconceivable to think of a Lord who reigned from the cross or whose lordship included authority over death. During this process, the Christian message also took on new meanings, but in theological reflection, these languages itself were fine-tuned so that they were better able to express the unique message they had been used to articulate (Toren 2011, 175–177).

As Andrew Walls, the historian of mission and non-Western Christianity, famously expressed, Christ himself 'grew' in the process of cross-cultural translation (Walls 1996, xvii). This is not only true in the sense that his influence grew, but also in the sense that the salvation He brought took on new meanings. From a critical realist perspective (see Chapter 2), this means that when new languages were used to reflect on his person this led to new insights into who He was and what his salvation meant that were not possible beforehand.

8 The intention to share universally, however, is not unique to the Christian faith but is shared by other world religions as well (Griffiths 1988, 403ff.).

An example is the formula from the Council of Chalcedon in A.D. 451 that states "that our Lord Jesus Christ is one and the same Son; the same perfect in Godhead and the same perfect in manhood; truly God and truly man" (Olson 1999, 231). These insights into the unique nature of Christ would not have been possible in the Jewish conceptual forms of the first Christian community and have enlarged the understanding of who He is.

In the case of an intercultural debate on science and religion, theological reflection needs to be aware that 'science' and 'religion', as we have seen, are themselves culturally shaped concepts (Asad 1993; Auffarth and Moher 2006; Bagir 2015; Harrison 2010). The way these concepts are shaped in the North Atlantic world may be insightful, but when these terms are translated to approximately comparable terms in other cultural contexts, this contributes to the diversification of the understanding of the terms (Livingstone 2011, 287). Due to the use of French, there is no major impact of translation in our research, but the use of the concepts in French-speaking Africa show certain limitations of the North Atlantic debate – as well as characterize the discourse that is currently taking shape in French-speaking Africa.

Therefore, intercultural theology needs to ask how to respond to culturally specific challenges, such as, for example, the challenge presented by cultural scientism in the North Atlantic world or the challenge of relating this debate to the quest for African identity in French-speaking Africa. The mutual conversation between those contexts on the one hand reveals the cultural specificity of these challenges. By revealing their cultural specificity, it relativizes these challenges and points to new answers that might otherwise have remained beyond reach.

An example of the way that understandings of religion are shaped by the Western context can be found in Ustorf's perspective on intercultural theology. In the understanding of intercultural theology held by Ustorf and his teachers, Margull and Friedli, we see an openness for transcendence, but a reluctance to commit to any particular religious tradition. Consequently, this perspective integrates "a strong dosage of [...] modern occidental agnosticism and relativism into the mix of intercultural theology" (Ustorf 2008, 242). In our opinion, this starting point reveals that this type of intercultural theology is a Western or even European project, as these representatives themselves also recognize (cf. also Küster 2011, 110). This Western view allows little space for the idea that different Christian theologies are also responses to the self-revelation of God in the Christian Scriptures and, as such, is contrary to the theological positions of most of the participants in our research. The more consistently catholic and post-colonial approach to intercultural theology we use and develop in this study means that we cannot at the outset write these positions off as entirely

relative due to their deep cultural embeddedness. The intercultural framing of the debate in the discourses showed that the participants were aware of their cultural location, but, contrary to Ustorf, they would not accept that their confidence in Christ and in the Christian Scriptures was equally relativized by this location. From our perspective, a truly intercultural theology demands that the question of the way in which, and the degree to which, culture shapes theological positions is itself part of the intercultural exchange and not foreclosed *a priori*. Whether theologically one ultimately does better justice to the divine with a generalised notion of transcendence, as in Ustorf and others, or with an historical understanding of God's self-revelation, as expressed by Bediako and reflected in the discourses, would demand extensive theological debate beyond the confines of this study (see, for example D'Costa 1990; Toren 2011, 204–208, *passim*) in which we would more closely align with Bediako and similar positions.

11 The Postcolonial Condition

Intercultural theology has significant overlap with postcolonial theology because of the joint interest in the cultural and social location of theological reflection (Hof 2016, 65–72). It may also be considered a school within the field of intercultural theology, because it works with an understanding of culture as diverse. "In postcolonial theory culture is not understood in terms of ideas and objects, but principally as a ground for contest in relations.…Culture is something to be construed rather than discovered, and it is constructed on the stage of struggle amidst the asymmetries of power" (Schreiter 1997, 54; cf. Bradnick 2012). There is, however, an important difference here between the way we perceive culture and this postcolonial perspective. We take culture as a given that is being transformed by the influence of Christian faith. The perspective here is that of an individual or that of a local community, as is exemplified by the research of Robbins. Post-colonialism, however, focusses on the (societal) structures of power that facilitate culture and culture making. This fits with some important elements of discourse analysis used in social sciences, as we discussed in Chapter 2. Here we also explained our objections against a constructivist understanding and the totalitarian outlook it can produce. Nevertheless, postcolonial analysis is useful to us. Furthermore, from our understanding, power is also a crucial category in the maintenance of the status quo as well as in its transformation. From a theological point of view, divine power is also included. We therefore think that the analysis of the power play in a

concrete society or community is an indispensable part of doing intercultural theology, as the participants in our research also testify, and as we argue below. After all, we live in a world that is very deeply affected by colonialisms, especially those from the North Atlantic world. Yet, even the term 'French-speaking Africa' in the title of our project is filled with colonial and post-colonial meaning, as we summarized in Chapter 3.

The discourse studied shows the importance of postcolonial analysis for the science and faith debate. The students and academics are well aware of the power struggles involved. The groups from Yaoundé underlined that Western science is a colonial force that leaves little space for a specifically African and African Christian approach to science (see Chapter 4). At the same time, there is a broadly shared suspicion or awareness of local power games: of secret societies that control university power politics (in all three cities), of Africanist pressure groups (academics from Abidjan), of churches that are worried about the influence of academic study on their members (in Abidjan and Kinshasa), and of students and academics who use academic education and jobs as a means of social advancement (in Yaoundé and Kinshasa). The positioning of the Bamileke participants we mentioned in Chapters 3 and 4 deserves a special mention here. This case shows that being involved in science and education also serves a political aim. There is no doubt that religion and thus the concrete choice of being a Christian is also influenced by certain power structures in society. Also, divine power is explicitly taken into account. The liberating power of the gospel received a crucial position in the model of the students from Yaoundé (Chapter 4). And the guidance of the Holy Spirit is a fundamental empowering element in the understanding of science by the academics from Abidjan.

As we will see in the next chapter, these themes are not very common in the North Atlantic debates on science and religion, and therefore this awareness of power-struggles can deepen Western science and faith discussions where the discussion of the influence of academic power structures is mainly used by those who take on minority positions that are excluded by the academic majority. Though more study might be needed here, it seems that such analysis is suspect to those who want to stress the trustworthiness of scientific discoveries and do not want to play into the hands of the religious and sometimes fundamentalist sceptics of mainline science. The discourses thus point to an approach that critically asks where power interests might obscure the clarity of scientific insight. They also point to the possibility of including the mention of the divine presence as an enabling power in an existing cultural setting. Therefore, these discourses also challenge the repertoire of most postcolonial theologies that focus on marginality and vulnerability (Hof 2016). Although

human power in this approach is justly questioned and criticized, the positive (use of) power in the light of the kingdom to come remains neglected.

12 Intercultural Exchange between Different Culturally Embedded Discourses on Science and Religion

Given these considerations from intercultural theology, we now look at the debate on science. Several times in this study, we have pointed to Thomas Kuhn's *The Structure of Scientific Revolutions* (1962) which has greatly contributed to the awareness of the importance of social location for scientific inquiry. What scientists consider convincing will be profoundly shaped by the dominant scientific paradigms that govern which questions are asked, what type of theoretical solutions are sought, and even what counts as relevant data. Some radical followers have concluded that scientific pictures of the world are therefore mere social constructions. Kuhn himself was much more nuanced, realising that socially located scientific traditions are engaging with nature; that scientists cannot simply 'beat nature into line', and that it is resistant to our interpretations (Kuhn 1996, 135, pp. 52ff., 96ff., 206). Yet, Kuhn stressed the 'incommensurability' of research paradigms, a term with which he indicated that there was no perspective independent from such all-encompassing paradigms that would allow for a rational comparison of the paradigms itself.

One promising way forward is to think of science as being shaped by 'research programmes' (Imre Lakatos) or 'research traditions' (Larry Laudan) (Murphy 1990, 51ff.). According to Lakatos, different scientific perspectives are embodied in research programs from within which scientists study the world. A research program centres around a main theory (a concept which we might link to Kuhn's 'paradigm') with a number of auxiliary theories around it through which the world is studied. Research programs are successful or 'progressive' in as far as they continue to grasp an increasing amount of data and allow for the development of new auxiliary theories that can deal with these increased data or with anomalies that appear and that might at first seem to invalidate the central theory.

Degenerating programs can only preserve their core theories by ad hoc adaptations of their auxiliary theories. Competing research programs can therefore be compared in terms of their progress, which thus becomes a measure of how well they can cope with reality as it is in itself, taken independently from the theoretical framework we use to look at it (cf. Brink 2009).

Lakatos' concept of competing research programs presents us with a model that allows us to study the interaction between different culturally and socially

embedded research traditions. It moves beyond Kuhn in that it does not focus on the dominance of one paradigm that may in due time be exchanged for a stronger competitor, because Lakatos' model would allow us to value the existence of several parallel research programs, including marginal ones. The science and religion debate adds extra layers of complexity. The science and religion interface is concerned with overall conceptions of the nature of science. While research programs are characterised by scientific theories and scientific practices, particular research programs may well be combined with various overall conceptions of the nature of science, that are themselves also embedded in broader cultural and philosophic traditions.

As we have noted before, the concept of religion itself is profoundly shaped by different religious traditions in their interactions with their cultural environments. One can well speak about traditions of research concerning the science and religion interface that work with fundamental theories about the relationship between science and religion, such as the models distinguished by Ian Barbour (Barbour 1997, 77–105). These models are each at the origin of different research traditions. However, in Chapter 5 we already explained that these models, all rely on the modern Western understandings of science and religion, and the discourses studied here point to possible alternative research traditions.

Using Lakatos' model of competing research programs, one could easily conclude that the traditional African approaches to healing – which so deeply integrate what Westerners call medical practices on the one hand and religious practices on the other that they cannot be properly distinguished (Feierman and Janzen 2011) – are in a deadly struggle with modern Western approaches to health and healing. One could in the same vein conclude that the first intimations of a specifically African Christian approach to science and religion, which are discussed in some of the final focus group sessions, do not have the momentum and/or institutional support that would allow their development into a research program. On two counts, this analysis will need to be deepened and nuanced.

First, with insights from postcolonial theory, one would ask whether the relative success of programs might well be related to the political and social support they receive, rather than to the inherent progressive nature of the program. From this perspective, certain marginal or subaltern voices might well need to receive specific attention because they may represent creative critical insights that the voice of the majority drowns out to its own loss. From an intercultural perspective, one would also ask whether certain central or auxiliary theories are given higher credentials than they deserve because they ring true within a specific culture.

Secondly, the insights from traditional Africa and from African Christianity are not neatly separated into research traditions. The analysis of the discourses points to intercultural interaction in which the influences of Western science, Christian faith, and pre-colonial African traditions are all changed, allowing for new cultural configurations that could not have come into existence if one of these streams had developed independently. All Christian traditions show such amalgams that have proven hugely creative and successful. This fits our understanding of culture which we defended above. The critical cultural interaction between the earliest Christian faith developed in a Jewish context and surrounded by Hellenism, and the later interaction between the Latin Christian tradition and the culture of the Northern Germanic tribes, and the most recent interactions between modern missionary Christianity and African primal religions – leading to African independent Churches and neo-Pentecostalism – are all examples of this (also see Chapter 3). It is our contention that the approach to science and religion expressed in the discourses studied, which so far has remained marginal, may well contain the seeds for an alternative Lakatosian 'research program' on science and religion that provides crucial contributions to a catholic debate on science and religion.

Looking at these complex cultural interactions, the joint and closely related attention that intercultural theology pays to both contextuality and catholicity invites us to propose a number of principles for navigating the tension between these two poles, in relation to both a broader intercultural exchange in general, and to science and religion in particular.

- In the first place, the notion of catholicity in theology cannot be separated from a basic confidence that God can be known even though humans are limited by their historical and cultural locations. This theological principle is directly related to the fundamental trust, on which other sciences are similarly based, that reality can be known. This trust is confirmed in the research process itself but remains essential to the process. The science and religion debate can similarly be engaged on the basis of a joint confidence that an open inquiry may lead to an increased understanding of the matter.
- Secondly, the notion of catholicity brings a normative element to the attitude proper to this inquiry, because it requires an attitude of receptivity. It nurtures humility towards the reality of God, the other, and nature itself. The catholic approach we propose combines an awareness of the (inter-) subjectivity of knowledge, with the effort to let these other realities speak for themselves.
- Thirdly, the notion of catholicity is richer than a reference to the universality or the 'universal intent' of scientific research. It not only places science in

the context of research communities, but in a 'community of communities'. The worldwide Christian community can only be catholic if it incorporates and listens to the voices of many culturally embedded Christian traditions. It envisages an intersubjectivity that is as wide as the global body of Christianbelievers. Similarly, the science and religion debate needs to be catholic in the sense that it consciously engages in a dialogue with a range of culturally and religiously embedded perspectives (Christian, secular, and other voices) that can each contribute their proper perspectives and insights. Other cultural perspectives may allow one to positively contribute insights that would otherwise be impossible or very unlikely.

– Fourthly, an intercultural approach would ask whether such an intercultural exchange might reveal blind spots to particular culturally embedded approaches. Are there either culturally shaped mindsets (such as methodological naturalism) or social pressures (such as cultural scientism) that function as a screen that hinder us from putting certain characteristics of the science and religion debate in a particular context into sharper focus?
– Fifthly, an intercultural approach would not simply ask for the most competitive research programs. It would ask whether weak and even marginal voices need to be brought to the fore where they risk being drowned out by more powerful players and traditions. This reflects the sensitivity of postcolonial analysis. Yet, these voices are not considered valuable because they are marginal, but in so far as their marginality allows them to perceive aspects of reality and of God that risk being drowned out by more powerful discourses. In the sixth place, intercultural theology is aware that formal academic theology is not the only voice worth listening to. It will also gather insights from what might be called 'espoused theology' or 'lived theology', just as we have been gathering insights from the lived engagement with science and religion in French-speaking Africa (see Chapter 2).
– Finally, an intercultural approach to science and religion also needs to respect the specificity of every context and therefore asks whether certain challenges demand context-specific answers.

CHAPTER 7

Science and Religion from a Catholic Perspective

In this final chapter we place the reconstructed and analysed discourses from francophone Africa in the framework of the wider debate on science and religion. In the first chapter we explained with the help of Bagir (2015), Livingstone (1999, 2003 and 2011), and others how the terms, science and religion, as well as the supposed relationship between the two already point to the Western origin of the debate. Designed in Europe and using a typical Western frame, our research of the understandings from francophone Africa is therefore also biased and mainly informed by typical Western suppositions and reflexes. When we focus in this chapter on relating these discourses from French-speaking Africa to a wider debate, this biased framework easily becomes a hindrance. A normative Western approach in the sciences alienates a person from their own background (Zhou 2012) and therefore diminishes the possibilities of a worldwide and open dialogue. This of course prevents a real exchange of ideas and knowledge. However, the discourses from French-speaking Africa show that the participants mainly understand science tout court as Western science (see Chapter 4).[1] Western normativity is therefore not only present on the side of Western researchers, but is also part of the discourses from French-speaking Africa as well. Therefore, we do not pretend we can avoid this bias, but we try to diagnose it more carefully in order to understand its function and limitations.

The search for a better and more critical understanding of the normative function of Western perspective on science is part of a broader venture. We join Willem Drees (2015) when he qualifies the task of a global approach to science and religion as both descriptive and hermeneutical. Chapters 4 and 5 offer a description of some discourses on science from French-speaking Africa and also include the first steps of the hermeneutics by analysing and comparing the discourses. In Chapters 6 and 7 we continue this process, putting the reconstructed views on science and faith into a wider perspective in order to discover their possible contribution to a more intercultural and global approach. Chapter 6 offers our perspective on the connection between the studied discourses and (the development of) intercultural theology. In this chapter we concentrate on the relation to the wider debate on science and religion. In the first section we offer a sketch of the two tendencies we find in the

1 See Chapter 4.

bibliography when a global approach to the understandings of science and religion is in view. Historians seem to be especially focussed on the tremendous local and historical diversity and complexities of the positions while most (systematic) theologians concentrate on the universal aspects of science and faith. In line with Chapter 6 we will develop an alternative, catholic approach that tries to include some important points from both perspectives. The limitations of the scope of our research on Christian faith does not imply that our understanding of the catholic approach is only valuable for Christian faith.

Indeed, other religious or philosophical worldviews are also invited to contribute. From our understanding the many possible ways to understand "the interaction between knowledge and values," as Drees (2015) puts it, become even more interesting and worthwhile when a proper contribution from one cultural approach to another can be worded. Although we recognize with Efron that "[f]ocussing on the historically specific, the contingent, the unique, the *sui generis*, makes it difficult to bring any given moment in time and space to bear on any other moment"(2010, 252), we do think this is possible.

In the second section, we consider some important characteristics of the encounter between the debates from different cultural backgrounds. Finally, we specify these considerations, identifying contributions from the studied discourses to the Western debate on science and religion and vice versa, and answering the question of how these interchanges enable the development of our knowledge of God.

1 Towards a Global Approach to Science and Religion

According to William Drees, a global approach to the questions related to science and religion is a desideratum in times of globalization. His efforts as editor of *Zygon* to come to a more global overview of the state of the art in different world regions is provocative and highly interesting, but it does not necessarily lead to a better understanding of the interrelation of specific (local or regional) situations. In the series of articles called "(the future of) religion and science around the world" published in 2015 there is explicit attention paid to the world outside the North Atlantic. For example, Ignacio Silva's portrayal of Latin America is an informative overview of the persons and activities that animate the debate in different Latin American countries, but does not offer an overview or an in depth understanding of the complexities of the Latin American versions of the debate on religion and science. Although we agree that this and other articles point to the great potential of a global approach, we conclude that in the current situation a global approach to science and

religion is still more desired than practised. We only have bits and pieces without a framework that permits comparison and without an overview of the diversity of understanding. This is not meant to discourage the focus on a more global approach, but to raise awareness about the different understandings of what a global approach is or should be. In the first section of this chapter we distinguish three approaches to the global perspective. The first one is focussed on the complexity of the global situation, the second one underlines the universality of the science and religion debate. At the end of the section we will add our alternative approach that is based on the notion of catholicity.

1.1 *Complexity Approaches*

The study of the history of science and religion has strongly pushed the debate in the direction of a global approach. In the foregoing chapters we already referred to authors such as Brooke, Numbers, and Livingstone who repeatedly point to the historical complexity of what is called science and religion. For example, Livingstone's geographic approach in *Putting Science in Its Place* (2003) is very helpful for understanding the direct relationship between science, including both its practices and its theories, and its cultural (including social and political) context. The case of the diverse responses to Darwin's theories by different Reformed communities in the Anglophone world is regularly referred to, and makes it tangible that even a well-defined shared theological framework does not exclude very different scholarly evaluations (Livingstone 2003, 116–121). According to Livingstone, local situations therefore play a decisive role in science. Science is not a "perspective from no-where" (2003, 184). Noah Efron, who enthusiastically portrays the contributions of John Hedley Brooke in this field, mentions Brooke's effort in *Science and Religion: Some Historical Perspectives* (1991) to de-reify both science and religion (2010, 248–249). Efron argues that after the publication of the book, despite the acclaim it received, the search for "something timeless in the nature of the relationship between 'science' and 'religion'" continued, for example in the understanding of different religious traditions towards science, like 'the Muslim view' or 'the Jewish view' (2010, 252). Nevertheless, he thinks that the real complexity is avoided.

This focus on complexity does not mean that all these authors deny the possibility of a more general or transcending perspective. Although very dedicated to the complexity approach, Ronald Numbers opens another window when he turns towards what he calls 'patterns' in the history of science and religion:

> Without abandoning the gospel of complexity and retreating to uncomplicated master-narratives we can – and I believe should – search for

> middle-scale patterns, whether epistemic or social, demographic or geographical, theological or scientific.... I shall therefore contribute to this task by offering five such middle-scale generalizations, addressing what I call naturalization, privatization, secularization, globalization and radicalization.
>
> NUMBERS 2010, 264

However, these five generalizations reveal some interesting presuppositions in Numbers' perspective. The first three generalizations are closely connected to the separation of 'science' and 'religion' which has dominated the debate in most of the North Atlantic world since the nineteenth century (Harrison 2010; Bagir 2015). Although naturalization, privatization and secularization might have a strong impact on the development of perspectives in the North Atlantic world, this cannot be assumed for the rest of the globe. The dominant perception in the discourses we studied from francophone Africa is a unified understanding of science and faith. According to Bagir (2015, 415) this is also the case in the traditional understandings from Indonesia, and this also appears to be the case in India (Raghuramaraju 2016). Numbers' understanding of middle-scale patterns therefore reflects a biased Western understanding and is not helpful for discovering 'middle-scale generalizations' that include cultural diversity worldwide.

Globalization and radicalization, the last two middle-scale generalizations mentioned by Numbers, do not necessarily depend on this separation, and are more promising. However, these more sociologically coined patterns are less helpful for finding shared content than they might seem. For example, the dissemination of creationism in Turkey, as is testified to by Harun Yahya's *Atlas of Creation* (Hameed 2010, 133 and 149), can easily be recognized as being co-produced by globalization. However, globalization does not explain the meaning of 'creationism' in this specific cultural context (Drees 2010, 150). In other words, the global inspiration (in this case mainly from a North American background) is received and elaborated locally and therefore produces distinct effects and meanings (Roggeband 2007).

1.2 *Universalist Approaches*

The attention paid to the global diversity of the understanding of science and religion among theologians is less usual and more recent. The relatively late recognition of its importance, by Drees (2010), for example, is meaningful. At least two developments should have earlier opened eyes to the importance of global diversity for theological reflection on this point. Firstly, take the approval of Kuhn's historical approach to science (cf. Brink, 2009, 46ff. and 193ff.).

Although Kuhn's theory about the major paradigm shifts in the past was widely recognized, theologians apparently did not relate the historical diversity of scientific paradigms to the cultural diversity. Drees (2010, 59–60) reveals at least one reason why theologians sometimes refrain from the use of Kuhn's theory. According to him, Kuhn's argument could be abused in a '*tu quoque* argument' suggesting that a loss of credibility for science would be a gain for theology. "Downplaying science," as Drees argues, is often based on a simplification of scientific approaches. Feierman & Janzen (2011) point to another way systematic theology from the West could have been informed about alternative understandings of science and religion. Western missionaries communicated extensive information about scientific engagement in other cultures, but this knowledge was not used to inform the position of (Western) systematic theologians in the science and religion debate. The restraint among systematic theologians in making use of the historical and local diversity in their argumentation is also related to the specialisation from which science and religion is studied. Most theologians involved in the debate tend to be connected to analytical philosophy, which is focussed on the logical structures of thought and not so much on its historical and cultural situation. This is the case for Van Huyssteen and Van den Brink for example. Among these theologians, some are natural scientists themselves, as in the case of Barbour, Polkinghorne, and Drees.

To understand this attitude better, we turn to an example of a concrete and influential theological contribution to the science and religion debate. We choose Wentzel van Huyssteen's *Alone in the World? Human Uniqueness in Science and Theology* (2006), a major theological publication in the field of science and religion in the last twenty years. This book was published some years after a number of influential publications by complexity thinkers such as Livingstone's ground-breaking *Putting Science in Its Place*.

In the debate on Van Huyssteen's book, theologian Nancy Howell argues that Van Huyssteen does not sufficiently take account of the Western cultural bias of his focus on the uniqueness of human being (*Zygon* 2008). In reference to the difference between Japanese and Western scientists observed by the famous primatologist Frans de Waal, Howell argues that, contrary to Western colleagues, human uniqueness was not really an issue for the Japanese primatologists because of "the absence of human-animal dualism in the culture and religions that shaped Japanese worldviews" (Howell 2008, 494). Howell's critical assessment of Van Huyssteen's position is based on the lack of care used in the application of Van Huyssteen's own contextual and experience based postfoundationalist epistemology. "By Van Huyssteen's postfoundationalist approach to theology and science we should expect culturally determined

differences to arise in diverse contexts" (495). This "cultural determination" affects (Western) paleoanthropology, Howell argues: "Scientific claims appear to be reminiscent of Christian historical theology in its quest to define the image of God (*imago Dei*) and human uniqueness in contrast to animals" (496). Howell's argument is therefore that Van Huyssteen's approach does not take sufficient critical distance from his project in order to understand its "situated particularity."[2] According to Howell, "Social location" and "cross-cultural and religious comparative reflection" should have informed Van Huyssteen's approach (497). Although cross-cultural diversity appears to be at the heart of Van Huyssteen's rationality (Van Huyssteen 2006, 12–13, 24–25, 33), he nevertheless fails to adequately address the social location of Western science – in this case its understanding of humanity.

In his response, Van Huyssteen admits the validity of Howell's critical remarks but he does not analyse why he did not raise the issue of the different cultural perspectives on humanity, as is testified to by the example of the Japanese primatologists (2008, 523). This is particularly interesting because Van Huyssteen is a white South-African theologian, and at least the geographical position of his primary social location creates a clear distance from the North Atlantic. Yet, even if Van Huyssteen were to identify himself theologically as completely or mainly connected with the Western world, the influence of this social and cultural location is equally relevant. However, the nicely elaborated conclusions of the book *Alone in the World?* neither testify of the relevance of African cultural involvement nor refer to the influence of the North Atlantic cultural context in relation to the understandings that are presented.

Although Howell's argument is directed towards Van Huyssteen's reception of Western science, in this case, palaeoanthropology, it also concerns Van Huyssteen's theological approach. When Western science as such is not adequately socially situated, this must include the theological positing of the author himself. However, Van Huyssteen's approach in *Alone in the World?* is far from the traditional universalist approach you might expect. He pays specific attention to the importance of cross-cultural research and severely criticizes modern scientific universalism (Van Huyssteen 2006, 10ff.). He even affirms that "it is no longer possible to see theological reflection as an activity in which we can still follow universal rules for understanding" (308). Nevertheless, there is no substantial place given to a reflection on the social and cultural location

2 At this point Howell refers to feminist philosopher Sandra Harding, who requires "strong reflexivity" in order to "achieve critical distance from his/her project in order to engage the socially situated particularity of the project in relation to other cultural projects and the lives of Others" (Howell 2008, 497). For more on Harding, see below.

of this theological contribution. This lack is due to Van Huyssteen's postfoundationalist approach. Although he recognizes culture and tradition as important influences, his intention is not so much to value these traditional and cultural differences as scientifically fruitful, but as challenges to be overcome.[3]

> But a specific tradition is unavoidable only as a starting point, not as a final destination, i.e., not as something that determines or defines later performances.... A post foundationalist approach helps us to realize, however, that we are not the intellectual prisoner of our contexts or traditions, but that we are epistemically empowered to cross contextual, cultural and disciplinary borders to explore critically the theories, meanings and beliefs through which we and others construct our worlds.
>
> VAN HUYSSTEEN 2006, 25

In such an understanding, situation and locality point to the partiality of an approach that has to be repaired. Despite the recognition of the cultural embeddedness of science, there is a crucial difference between Van Huyssteen's approach and that of the historians mentioned above, because cultural diversity is not appreciated as having potential for science, but primarily as something to overcome. In contrast to the historians we mentioned above, the author is focussed on a scientific discourse that transcends cultural contexts and diversities. However, Van Huyssteen not only neglects to take into account the cultural location of the scientific work to which he refers (as Howell points out), but also fails to address the cultural bias of his own research and that of the more general or overarching discourse on which he is focussed. Despite his important criticism of scientific universalism, Van Huyssteen's approach is still universalist when it comes to the appreciation of cultural diversity.

1.3 *A Catholic Approach*

In both arguments we recognize important elements that affirm our intercultural framework. In the first place we want to underline the crucial importance of the contextual and the situational. However, we also want to affirm a certain 'universal' focus, not in the sense of an 'ultimate' understanding of science and religion that eliminates the importance of culturally diverse perspectives, but

3 As Van Huyssteen (2008, 523) responds to Howell: "Already in my *The Shaping of Rationality* I argued that cross-disciplinary, cross-cultural and by implication also comparative religious reflection will expose biases, values, uncritical assumptions and back-ground beliefs and this should indeed – as Howell also argues – raise fundamental questions about our various approaches to the concept of human uniqueness."

in the sense that both scientific knowledge and knowledge of faith have a relation to a reality which implies that there is a universal point of reference (see the explanation of our 'realistic approach' in Chapter 2). Is there a creative synergy possible between the complexity approach as put forward by historians such as Livingstone, and the emphasis on universalism of the theological approaches such as found in Van Huyssteen's work (despite his own denial)? We think so and for our argument we focus on the theological contributions to the debate. This section starts with the neologism 'glocalisation', which underlines the necessity of an alternative approach, and then takes a historical detour to explain some crucial elements of the understanding of science and Christian faith in early modern Europe. This brings us to the presentation of two fundamental concepts of the catholic approach we propose, trust and community. We end this presentation of our approach with the exploration of the relation between catholic and universal.

1.3.1 Some Remarks on 'glocalisation'

Willem Drees makes mention of the question about the universal and the specific focus. In his book entitled *Religion and Science in Context: A Guide to the Debates* (2010) he uses the term glocal(isation), as we did in Chapter 6, to indicate how local and universal can be related:

> Though in their self-understanding and ambitions science and religion are universal, they are set in a particular disciplinary and confessional frame, at a particular place and time. But neither are science and religion just local, as local processes appropriate and adapt discussions going elsewhere.... This interaction between the specific and the general might provide a good framework for considering debates on religion and science.
>
> DREES 2010, 148

However, the term glocalisation and its explanation by Drees is very general. It raises important questions such as how the two levels or tendencies relate to each other (for example, is one of the two dominant?) and how they interact. Drees states that "in their self-understanding and ambition, science and religion are universal." However, this is less evident than the author presupposes. His stance reflects a Western understanding of both terms that might be supported by perspectives from other cultures that are driven by universal claims but not by most traditional African religions. Those religions do not make universal claims but are explicitly limited to a people and linked with an ethnic identity. This is therefore also true of traditional African science and is made explicit in the emphasis on secrecy and a lack

of transparency that are mentioned by the students from Abidjan (see the analysis of the discourse of the students from Abidjan in Chapter 4, cf. Feierman & Janzen 2011, 245).

Additionally, our research reveals that assuming universality as an essential feature of science also creates problematic situations when we try to gain a global and culturally diverse understanding of science and religion. In these African contexts, the theoretical claims of universality are directly related to Western power and unequal power relations between Northern and Southern hemisphere. When science is mainly understood as 'Western science', the accompanying claims of universality that come along are consequently connected to Western supremacy. This brings into question the value of a specific and thus not universal (or dominating) African perspectives, and this is supported by the last research session with the students from Yaoundé and with the academics from Abidjan. The participants indicated that their research is easily outclassed by Western research because there is so much more funding in Europe and the US (students from Yaoundé) and that African research is often neglected or side-lined (academics from Abidjan). A postcolonial perspective helps to understand why a 'universalist' position is not restricted to (mere) theory and epistemology.

Although we do not deny the importance of what is called 'universal' by Drees, the understanding of this term cannot simply be identified with the Western understanding. This term should therefore be handled very carefully in order to avoid stating that only one specific form of science, in this case *Western* science, is universal, and that an African or Indonesian form of science is not. Here we join an older epistemological debate, and more specifically Sandra Harding's (1993, 1998) understanding of what she called "standpoint epistemology." In this understanding, not only the embodied and situated character of knowledge, but also the crucial importance of communities (instead of primarily individuals) as well as the "genuine dialogue across differences" is advocated (1993, 63–69). We will elaborate this below.

1.3.2 A Historical Detour

First we turn to the catholic approach we came up with in Chapter 6. We argued that catholicity offers a wider and deeper understanding of universality; one in which cultural diversity is included. An understanding of the historical developments helps us reflect on the geographically and culturally diverse understandings of science and religion today. The universality claims of modern science from the North Atlantic world are related to the work of 'scientists' from early modernity that was nearly all embedded in a Christian understanding of God and the world (Harrison 2010; Brooke 2011). We referred earlier

to Peter Harrison who explains that both concepts, 'science' and 'religion', are "of relatively recent coinage" (2015) and that 'science' in particular only took on its modern meaning in the nineteenth century. Harrison concludes that before modern times, in the North Atlantic world "'science' and 'religion' were not independent entities which might bear some positive or negative relation to each other." He refers, among others, to Kepler who described astronomers as "priests of the most high God, with respect to the book of nature" (Harrison 2010, 26).

The early modern case of the condemnation of the theory of Galileo Galilei by the authorities of the Roman Catholic Church is revealing on this point. This intervention reflects the way the authorities understood the 'relationship' between Christian faith and science; in this case as completely intertwined and under their hierarchical authority. However, other Roman-catholic 'natural scientists' involved in the early modern 'sciences' did not agree with the Roman Catholic Church's position. The pointed comment on Rome's verdict on Galileo by the French physician and dedicated Roman Catholic, Blaise Pascal (1623–1662) makes it clear that a faith-related and thus non-independent science does not necessarily lead to suppressive relations between faith and science. He argues that Rome's judgement of Galileo discredits the senses and will have devastating consequences for faith. The reliability of the senses is not only a prime interest for experimental science, but also for the church due to the role of the senses in faith; after all, 'faith is from hearing' (Pascal 1963, 466). According to Pascal, epistemological and anthropological perspectives based on Christian faith should guarantee science's proper functioning. However, Pascal, and others who thought that Galileo's new scientific paradigm was compatible with Christian faith, in no way sought to separate 'science' from 'religion'. Indeed, the reactions of both Rome's authorities and of Pascal, show that in a context where science and religion are intertwined, the claims of science have to be endorsed by theological or religious authorities. The reach of the 'scientific' claims (universal or not) are therefore directly related to the reach of the 'religious' claims (Bom 2012, 352–359).[4]

1.3.3 Trust and Community as a Basic Layer

This historical example underlines the crucial roles of faith and trust in both religion and science, as we ourselves underlined at the end of Chapter 6. Pascal

4 Although Pascal recognizes the universal value of faith and certain rational knowledge, he denies the possibility of making universal claims based on scientific experiments, as is testified by his ideas on falsification. He would defend the application of his falsification method as universal as it leads to what he called "certain knowledge," he denies that sensorial knowledge can make universal claims (Bom 1999, 27–29).

was certainly not the only one in the seventeenth century who based his involvement in experimental, natural science on Christian beliefs (Brooke 2011, 93–94). The basic trust thus relates to a shared faith or worldview. As the case of Pascal makes clear, the reach of the scientific claims is directly related to Christian worldview and thus to God. The Enlightenment and the French revolution primarily relate the basic trust to a universally shared humanity. When, during the nineteenth century, 'science' is separated from 'religion', the foundational role of faith or trust as related to a broader understanding of the world is rejected by positivists (and rationalists) but continues to play an important role in the work of most outstanding scientists, like Darwin, Einstein, etc. (Brooke 2011; Jaeger 1999, 107–121). This trust is not an exclusive individual decision but relates directly to a community and even a culture. In Chapter 6 we recalled not only the importance of the catholic community of faith, but also mentioned science as fundamentally related to a community. This implies an ethical dimension; science is for the good of this community and all people.

With our catholic approach, instead of focussing on complexity or universality, we give priority to the trust or faith and the communal perspective that makes science and Christian faith possible, including its direction towards the good for all. This trust includes the natural and cultural diversity of the reality we know. In this way, global and local come together in a more meaningful, relational, and ethical concept than in the broadly accepted neologism 'glocal'. Catholicity takes the global and the local from the side of the community in which basic trust is fundamental. These two elements relate science and religion more closely than we are used to in the current Western debates.

1.3.4 Catholic and Universal

A catholic approach not only reveals some reductive characteristics of an understanding that separates science and religion, but also critiques an ethnically bound understanding of community that is quite common in Africa. The difficulties the student group from Yaoundé had in arguing that a proper African approach could make a contribution to a global debate on science and religion are telling. Starting from their own ethnic sciences they discovered it was impossible to come to a global perspective. Their strongly community-based understandings are exclusive and are not orientated towards a catholic understanding that includes a plurality of ethnic and cultural identities. Therefore, they mainly related the universal claims of Western sciences to the unequal balance of power and economics, as we explained above. However, a just and fair understanding of the universality of modern science needs a catholic background.

In such an understanding of catholicity the focus on reality, as we elaborated in Chapter 2, cannot be left out (cf. Polanyi's perspective according to Jaeger

1999, 44–58). In the catholic approach we put forward, this focus on reality undergirds that which is often called universality in the knowledge of both faith and sciences. However, this is not by the exclusion of cultural diversity. Catholicity only functions when various cultural perspectives are included; therefore, an exclusive Western position, despite its many diversities, cannot claim catholicity. In this framework, universality is not one of the points of departure but is rather an aim that is pursued from a catholic, communal approach which starts from trust and takes the ongoing dialogue as its major instrument. There is an interesting parallel here between the way catholic truth was and is formulated by ecumenical synods in which local and regional churches are represented, and the way our catholic approach can move forwards. This reminds us that the (political, economic, etc.) power of the communities involved plays a substantial role in this search that has to be analysed and discussed.

We therefore presuppose that science is multi-cultural in the sense that Christian faith and other religions are multi-cultural. It can be practised within different cultural contexts which will influence its performance and characteristics. In this context, Sandra Harding uses the expression "Cultures as toolboxes for science and technologies," referring more specifically to natural sciences. Harding argues that after World War II, post-colonial, feminist, and post-Kuhnian theories open the floor to a cultural approach to the sciences (Harding 1998, 68–69). Harding rejects neutrality as a condition for what we above called universality. Instead, she focusses on what she calls 'strong objectivity' (see the comment by Nancy Howell above) that helps to "figure out which of these cultural elements are at this particular historical moment advancing and which blocking the growth of knowledge" (Harding 1998, 145).

Harding's perspective is very helpful for the further development of our catholic approach. We want to include different cultural understandings in order to understand the relations between the diverse positions and how together they help to achieve a better understanding of God and creation. We do not intend to present a culturally and religiously 'neutralized' understanding, because catholic never was meant to be neutral. It is about a community based, and God and reality orientated, perspective that intends to include cultural diversity. Therefore, from the very start our catholic approach creates tensions with one-culture approaches, Western or African, but also approaches with the (absolute) separation of faith and science (because of the common ground in faith or trust), and with approaches that separate truth from reality. However, in the debate with these other approaches we see possibilities to grow in the understanding of what is truly catholic. Although in this study we concentrate on Christian faith, our approach explicitly includes the participation of communities from other faiths or worldviews. However, depending on

the character of those other religions or worldviews, the shared trust will also differ, which will influence the possible outcomes. Nonetheless, we think that differences in beliefs also contribute to the growth of knowledge and strengthen the community-based aspect of our approach. Sometimes, however, there is a wider agreement across cultures that a certain approach is not making any constructive contribution at all.

1.4 *The Focus of a Global Debate on Science and Religion*

Our catholic approach seeks an understanding of both science and religion from a worldwide community in which (cultural) diversity is not seen as a hindrance, but rather as a way to contribute cross-culturally and worldwide. As we have remarked above, from the complexity approach there seems to be no need to think in contributions while every local and cultural determined position can stand on its own. However, Numbers' mid-scale patterns show that at least some complexity scholars cannot resist further generalization. Shared characteristics help to better understand the local diversities in terms of contextualisation and what we have called 'interculturation', and to facilitate thinking in contributions across cultures. Meanwhile, the universality approach tends to see cultural embeddedness as a hindrance to reaching its goal. This approach therefore facilitates the neglect of one's cultural embeddedness which easily results in the universalisation of one's cultural position.

1.5 *Mutual Contributions Across Cultures?*

Above, we pointed to Willem Drees' interest in the diversity of the global perspective on science and religion. In this context, he promotes a functional understanding of the discourse on science and religion. Interestingly, one of the fathers of the complexity approach, John Hedley Brooke, also suggests focusing on functionality (Efron 2010, 250; Brooke, 2014). Drees distinguishes three major roles of this discourse: the apologetic towards outsiders, the provision of authority towards insiders, and finally the resolving of discomfort on a more individual level. Drees argues that these three roles have distinct forms and pursue different purposes at a local level (Drees 2010, 11–38 and 149–150). He argues that this offers more insight into how the diverse and complex understandings of science and religion relate at local and global levels. A nice example of such an apologetic function of the discourse at a local level can be found in the discourse of the students from Abidjan (see Chapter 5) which shows that a certain independence of science can be a desideratum in this context.

However, the emphasis on the apologetic function as argued by Drees makes far more sense in a context in which there is a certain common sense about the separation of science and religion. In that case, one of the two or a specific

relationship between the two has to be defended in a more or less hostile environment. When science and religion are mainly perceived as integrated parts, an understanding that is supported in all groups but is most explicitly expressed by the students from Yaoundé, there is no real internal diversity on this point and the apologetics will therefore be directed against an understanding that separates the two – in this case the Western option. Additionally, the apologetics from the North Atlantic, that presuppose a more or less independent position for both science and religion, are understood as a proclamation of (Western) cultural superiority which inspires cultural politics. This is a common practice in these African countries (see Chapter 3) and not so much as a defence of science and religion in its universal sense as meant by Drees. In this context, giving priority to the apologetic function of the discourse will therefore easily strengthen cultural oppositions. However, instead of strengthening cultural oppositions our intercultural theological approach seeks a dialogue between different cultural perspectives. Although the apologetic function is useful in a context in which a North Atlantic perspective is generally accepted, it does not fit the scope of our intercultural approach.

We therefore reach out to the second function mentioned by Drees: the strengthening of the insiders. From our catholic approach, we understand science and religion as an important theme in worldwide communication which helps local communities from different cultures to respond to the concrete challenges of today's world. In Chapter 6 we already underlined the importance of the words of Paul in Ephesians 3: 18: "with all the Lords holy people" we are able "to grasp how wide and long and high and deep is the love of Christ" (NIV). For this reason, we understand knowledge based on faith to include the knowledge of "all the Lord's people." This implies that the theological knowledge from different cultures is primarily perceived as compatible and complementary, as we elaborated on in Chapter 6.

Concentrating on the strengthening function of the discourse on science and faith for those within the community of faith, we perceive the process of moving towards a global debate as the ongoing understanding of the compatibility and complementarity of the different cultural perspectives. This may sound naïve or even triumphalist, but we understand this in line with the (ongoing) conversion approach to culture which we elaborated on in Chapter 6. This implies that this is a process in which the enslaving and idolatrous function of the existing understandings is uncovered, acknowledged, and dealt with, and that at the same time new understandings are explored through trial and error. Theologically we understand this as an eschatological process which includes elements of catharsis.

Therefore, we do not pretend to make a sketch of a 'multi-culturally integrated' discourse on science and faith, but rather to participate in a communication that facilitates the mutual understanding and testing of different cultural understandings. In this communication the question of how these perspectives both facilitate and block the growth of knowledge can be answered. In a contextual approach this question would be addressed in the light of contextual criteria. However, in the framework of a catholic approach this contextual approach is enriched by the criteria from one or more other contexts and contributes to the intercultural dialogue. The shared catholic network offers a context for constructive and critical feedback that takes cultural differences seriously and is directed towards the further development of the intercultural discourse. In this way we understand the discourse of science and religion as an intercultural space for the Spirit, as we argued in Chapter 2 (Jansen 2011).

1.6 *On the Proper Role of the North Atlantic*

However, this catholic approach as such cannot ensure the equal presentation of each of the cultural perspectives. In the introduction of this chapter we already noted that the Western bias of the debate on science and religion will not automatically disappear in a catholic approach. Our study also bears some characteristics of this as it is financed by, and academically embedded in, the North Atlantic world and takes the Western debate as its point of departure. These North Atlantic characteristics are also present in the execution of our research through the prominence of the Dutch facilitator and model builder, and in our theoretical framework which is mainly supported by Western authors. However, this North Atlantic dominance is felt considerably more strongly in the field of science than in the field of Christian faith. The participants strongly identified with Christian faith and yet no one argued that Christian faith is in fact as Western as science. The model built by the academics of Kinshasa even identified a Christian approach with the African understanding (see Chapter 5). Secularization in Western Europe and the growth of churches in the Southern hemisphere contributed to the general idea that Africa probably has a stronger position in the field of religion. However, the major part of the production of formal (academic) theology still takes place in the USA and Europe. This is representative for the whole field of scientific production in all academic disciplines.

In order to better understand the impact of the character of the West's cultural dominance in the field of science, we turn to Sandra Harding's (1998, 56–61) qualification of what she calls "European modern science," referring

more specifically to natural sciences and technology but certainly not only to these. From a postcolonial perspective, she highlights four characteristics. In the first place she points to the importance of Judeo-Christian traditions that had a powerful, positive effect on the growth of modern science in Europe, "though it is common to assume that modern science can only conflict with religion" (58). This Western framing of modern science as separated from, or even opposed to, religion is one of the major themes of the discourses we reconstructed and hides its deeply Christian background. Secondly, European expansion and the development of modern science mutually influenced each other. Modern sciences therefore solve the problems identified by "an expansionist North" (58). This expansionist view creates the "distinctive patterns of knowledge and ignorance characteristic of modern sciences" (59). Thirdly, the benefits of modern science follow the same pattern and are "disproportionately distributed to the elites in the North and their allies in the South and the costs disproportionately to everyone else" (60). Especially in the last session we had with the groups from Abidjan and Yaoundé these two latter points were explicitly discussed by the participants. Finally, according to Harding, European modern science claims to value cultural neutrality and perceives itself as culturally neutral. "Trying to maximize cultural neutrality … expresses a culturally specific value" (61).

We provide just two remarks on Harding's first point because of its direct relation to our main subject. The Christian roots of (experimental) science and today's academic world, brings forth the question of whether there is an intrinsic bond between this kind of science and Christian faith. Harrison recalls Arthur Peacocke's claim that "the relation of Christianity to science 'has a special significance for all forms of religious experience and cultures'" (Harrison 2010, 36). Harrison agrees that Christian religion is indeed a 'paradigm case' but in the sense that it is "the paradigmatic religion because the 'other religions' were constructed in its image." We agree with Peacocke's understanding of the specific relationship between Christian faith and experimental science, but we would argue differently here than Harrison. The catholic approach to intercultural theology that we advocate is directly related to the basic Christian understanding of faith and science. The basic trust in sensorial knowledge and the reliability of creation, specifically developed in Christian theology have a particular uniting meaning for the different cultural understandings of science and faith and even science and religion. One could however imagine cultural and religious contexts in which this conception is less evident or even rejected. We are aware that conditioning the dialogue on science and faith or religion by a kind of realism can easily be understood as a typically Western characteristic,

but we think that this condition is inevitable in relation to the meaningfulness of both science (especially experimental research) and religion.

Harding's first point also refers to a complication of the North Atlantic understanding of science when it comes to its Christian roots. From being part of a symbiotic whole dominated by Christian theology and values, the dominant understanding of science in Western cultures became independent of religion, or, as Harding calls it, 'neutral'. In Chapter 5 we argued that scientism may be understood as a next step in this development. There we agreed with Smedes' cultural understanding of the term and suggested that when there is no overarching religion or philosophy, science as such can take the place of religious or philosophical worldviews. When scientific knowledge is perceived as the highest form of knowledge, science easily receives a (semi-) religious status and becomes a social and political power. Where or when this is the case in the North Atlantic world, science is no longer one of the many cultural domains but is rather the pivotal instance of culture. This indicates a new phase in the understanding of science and religion, because in such a case the typical modern separation of facts and knowledge on one side, and values and meanings on the other – as maintained by Drees (2010, 2) – is outdated. In such a context, scientific knowledge also provides the values. However, scientism only functions properly if science pretends to be value-, or better, culturally-neutral. This points to a contradiction within what is called cultural scientism. Anyway, the (nearly) absolute position of science in scientism makes an intercultural approach such as the one we propose very difficult. An ongoing development in the direction of scientism will therefore intensify the identification between science and the North Atlantic world, and will thus disqualify science from other cultures when it is not in line with the Western norm.

All four characteristics of Western science mentioned by Harding make it difficult to move towards a global approach in which different cultural approaches are welcomed, as we propose. Above, we suggested that the context of expansion, together with the neutrality claim (and thus directly related to what we called 'universality') of Western science, make it very difficult for the student group from Yaoundé to imagine their proper contribution to the global debate. The development towards scientism in the North Atlantic world is also a complicating factor for a global debate on science and religion.

The effect of these characteristics cannot be easily overcome. The studied discourses show that the participants from francophone Africa have (more or less) accepted the Western hegemony of science. This is not a helpful starting point for a reflection on their own cultural contribution to the global debate. In this book we challenge culturally different approaches to science and

religion to speak out and make contributions. We deliberately choose to start the elaboration of the catholic approach on a modest scale in order to avoid the domination of Western influence. As we explained in the first part of this section, we prefer to focus on the mutual contributions that can be made by the discourses of participants in the research and Christian approaches from the North Atlantic. This places the two culturally embedded approaches in a constructive starting position. In the next section we will give an example of how this could be done, based on the results of this research. This example is to be understood as an extrapolation and a further elaboration of the first step of our catholic approach. However, we do not pretend to speak for the participants of this research (let alone for Christian academics and students from francophone Africa as whole), nor to articulate the North Atlantic position. All participants should speak for themselves and are invited to do so.

2 Making the First Step towards a Catholic Approach: Mutual Contributions from Francophone Africa and the North Atlantic World

The aim of a catholic approach to science and religion is to establish an intercultural dialogue in which questions such as how the different perspectives both facilitate and block the growth of knowledge, and what each approach contributes to the other(s), can be answered. In this section we indicate venues for such a dialogue between the perspectives from francophone Africa as reconstructed by our research and understandings from the North Atlantic world.

We first answer these questions on the growth of knowledge and the contributions from the perspective from French-speaking Africa and subsequently from the perspective of the North Atlantic debate. In Chapter 2 we already pointed to the inequality of the sources. The first can be qualified as espoused theology, while for the second we use academic contributions and can therefore be qualified as formal theology. However, in the given situation, we think that a dialogue between these two different types of theology is justified and possibly fruitful.

2.1 *Contributions from the Discourses on Science and Religion from Francophone Africa*

First, we portray how the facilitating and blocking of knowledge is understood by the participants of our research, and from there we move to the question of what contributions could be made to the North Atlantic approaches.

From the perspective of the studied discourses, Western scientific knowledge is mostly perceived as limited. There is a strong tendency among the participants to uncover a knowledge blocking element in Western science. One of the clearest understandings of this lack in Western science can be found in the discourse of the academics from Abidjan (see Chapter 5). What Western science is not able to perceive is called the spiritual, a dimension of reality which can be touched by diviners (mediums). They argue that African cultures are inclined to grasp this dimension of life. The academics themselves testified that they are aware of this dimension and use it in education when they relate to students. This element is also reflected in their understanding of research in which they refer to the guidance of the Holy Spirit and the use of prayer. In Kinshasa the academics related Western science to instrumental reasoning which is contrasted to encompassing reason. This also implies a kind of reduction on the side of Western science, more specifically located in the reasoning. Finally, we mention the two groups from Yaoundé that refer to the possible negative influence of science on Christian faith. Other limiting elements of Western science mentioned can be related to its embeddedness in postcolonial politics of expansion and universality claims, both in line with Sandra Harding's analysis. According to the dominant view of the studied discourse, the Western scientific approach is thus limited qua scope and approach.

Western science normally understands itself as a specific form of knowledge acquisition, and the implication that it excludes certain domains of knowledge is quite acceptable from this self-understanding. The rules of transparency and falsification of knowledge will exclude some other types of knowledge that are none the less acceptable in other domains of life (cf. De Rijk 2010). This makes it clear that this understanding is based on an understanding of the world which is divided into (relatively) autonomous spheres. The development of the idea of separated domains of life from Aquinas' understanding of nature and grace (or post-Aquinas, according to Henri de Lubac, see Walgrave 1966; Figura 1979; Veldhuis 1990, 21–41; Dekker 2004; Bom 2009) to the Enlightenment's separation of science and truth on one side and religion and values on the other, and the nineteenth century definitions of science and religion deeply impacts Western thought. Even alternative perspectives on science, such as Sandra Harding's (1998) defence of 'strong objectivity' that includes marginal perspectives and is open to a multi-cultural dialogue on knowledge, do not mention the spiritual as an essential dimension. This 'not-spiritual' approach contrasts with the encompassing approach to knowledge and reality demonstrated by the participants in the research.

The dominant perspective of the discourses present (human) life as a unity. From that perspective, the opposition of science and religion asks for a difficult,

if not impossible, move because it requires an understanding of these realities as (relatively) independent phenomena. Although the participants can handle Western concepts, it is clear that this understanding does not fit traditional African perspectives. This corresponds to Feierman and Janzen's conclusion when it comes to science and religion in sub-Saharan Africa: "The African scholarly universe appears to be open to acceptance of religion and science in the same framework, all the while many African scientists adhere to the Western separation of science from religion" (2011, 248). Thus, the participants of the research do not really appropriate the Western perspective. As we commented in Chapters 4 and 6, some of the participants understood themselves as 'hybrids' but most of them felt explicitly attached to the unity of life. They prefer living in two cultures at the same time above the separation of life. For instance, rather than being a non-religious scientist in the laboratory and a devout Christian at home and at church, some of the academics shared how they pray in the laboratory (academics from Abidjan) and how they understand their academic work as a place where God is revealed (academics from Yaoundé). Although they did not come up with typically Christian methodological or theoretical alternatives, in their spiritual practices they unite Christian faith and science in line with the heritage of the unity of life.

All theology that in one way or another rejects the typically modern separations that are so dominant in Western culture – for example, public and private, truths and values, etc., – and perceives itself as fully scientific is at odds with the classical modern separation between science and religion. The science and religion debate is therefore at the heart of theological self-understanding. When African scientists stick to the unity of life, they are communicating a holistic approach. The studied discourses therefore seem to encourage the science and religion debate in the North Atlantic world to move towards a more integrated understanding of science and religion. Such an understanding is also helpful for the sake of theology itself and its place at the (post)modern university (cf. Bom et al. 2016; Bom 2016). However, in Chapter 5 we also argued that from a Western perspective integration includes the acceptance of the (relative) independence of science and religion and is therefore different from the traditional African perspective as worded by the participants. We will return to this point below.

2.2 *Contributions from North Atlantic Perspectives*

From a North Atlantic perspective, the blocking of knowledge in traditional African culture is a fact. We recall the criticism mentioned by Feierman and Janzen (2011, 245) about the lack of transparency of secret knowledge, and

which was also mentioned by the students from Abidjan (see Chapter 5; Bom & Toren 2017). As we mentioned before, the idea of the power of secret knowledge appeared to be strong among the research population, and various participants in the research groups alleged that Rosicrucians and Freemasons are influential at the university. In Chapter 6 we suggested that from an African perspective these esoteric societies resemble variations of traditional secret societies. Apparently, the transparency argument is not generally shared at these universities.

The relation between religious power and science therefore questions the holistic approach favoured by the participants in our research. A holistic approach easily leads to the domination of religious and other power interests over knowledge. The second session with the students from Abidjan revealed that sometimes the churches, but more often traditional forces, reject academic knowledge because it questions their knowledge and thus their power. The student group from Abidjan suggested that from the perspective of traditional leaders the strict separation of science and religion appears to be the best solution. However, this opposes the main tendency of the research which holds that science and religion are intimately related. The North Atlantic criticism points to a vulnerable side of the so-called holistic position. If the role of religion, in this case Christian faith, is not clarified, all kind of leadership can easily block knowledge.

It therefore appears to be a typical mistake from the perspective of the (European) Enlightenment to think that this threat is especially concentrated in religious leaders or even in religion as such. Blocking knowledge in Sub-Saharan Africa is in the first place an effect of cultural politics from the colonial powers and the post-colonial state that uses education and university for their own goals. Harding (1998) confirms this more generally for the postcolonial situation. All kinds of power are therefore a possible threat to the open acquisition of knowledge and science and can lead to abuse. Nevertheless, power is always involved, and a neutral science is impossible. We think that a critical assessment by Western approaches can make an important contribution to the worldwide debate and therefore also to the holistic approach we found in the studied discourses. The critical assessment should not however be limited to blocking but should also include the facilitation of knowledge. The science and religion debate could be helpful for clarifying all kind of links between powers, values, and knowledge in order to understand the blocking and facilitation of knowledge. It will then become evident that in Western science, governmental programs and financing by industries, etc., can easily develop into knowledge blocking elements.

Finally, we turn to Barbour's typology, to which we referred earlier. In Chapter 5 we concluded that this typology should be expanded in order to make an intercultural debate possible. This presupposes that Barbour's typology can be a useful instrument for a catholic approach to the science and religion interface. Although we addressed some of its typical cultural limitations, we still think it can be an important tool for a catholic approach. This is especially the case because many Western understandings of science and religion are spread by colonialism, mission, and international scientific networks. However, in a non-Western cultural context the Western types or models will be interpreted differently. For example, in the conflict model the clash between science and faith, referred to by the participants and mainly related to some of the churches and the traditional leadership, is primarily a cultural conflict. The opposition of science and faith can only be understood well from the context of its defender(s). Above we argued that the context, including religion, power relations, etc., also influences Western understandings. Presenting a conflict as 'purely theoretical', without social and religious embedding is, at least from the perspective of most participants, something typically 'Western'. Including contextual elements such as culture, religion, and social situations in Barbour's typology would make it more complete and more accurate. Indicating from which cultural, social, and religious engagements a certain position in the science and religion interface is defended offers more insight into the content of this position. Smedes takes a first step in this direction by including an analysis of the North American and European scientific and specifically theological context (2008).

Nevertheless, Barbour's typology should be expanded with new 'models' as well. In Chapter 5 we highlighted the fact that the most dominant position in the researched discourses is the one that understands science and faith as being part of a bigger whole. Historically and culturally, this appears to be a broadly accepted position, as we argued above (see for example, the references to Harrison 2010 and Bagir 2015). This holistic understanding of science and faith should be recognized as a model as well. Importantly, though, this possible new model is probably more diverse than we realise from our perspective. Due to the dominance of the modern Western understanding, the positions that we characterise as a holistic perspective seem to represent one new model. However, it is likely that there is a similar diversity of positions among those who defend this holistic perspective as there is among those who separate the two. This diversity should be brought to the fore by further analysis of those positions and should be added as alternative models to Barbour's typology.

2.3 *An Ongoing Dialogue*

It is interesting that when we start to envisage the possibilities of mutual contributions, the North Atlantic approaches and those from the studied discourses cannot be isolated. Both perspectives are challenged to open up and to broaden their perspectives. Recently, some of the approaches from Christian theology in the North Atlantic world that move in the direction of integrating science and Christian faith, are informed by the worldwide Pentecostal movement. Because of the special interest in the role of the Holy Spirit as mentioned by the academics from Abidjan as well as in our own approach (see Chapters 2 and 6), we point to two approximations from the West that combine a non-excluding perspective with a particular focus on pneumatology. In the first place we mention John Pokinghorne's approach, as presented in the article 'The Hidden Spirit and the Cosmos' (2006). Here, Polkinghorne focuses on the relation between the Spirit and 'chaos-theory'.

The author starts from a Trinitarian perspective and seeks to relate the understanding of the role of the Spirit to the discovery of the intrinsic unpredictability of nature in the natural sciences, and the interaction between 'chance' and 'necessity' (lawful regularity). The author argues that the openness to the ongoing activity presumes that God is in both. There is no doubt that natural science and theology are neatly distinguished here, but the search is characterized by the compatibility and even complementarity of the two. Another example of such an approach is the volume edited by James Smith and Amos Yong, *Science and the Spirit: A Pentecostal Engagement with the Sciences* (2010). Smith argues against naturalism and also advocates a double understanding of the commitment of the Spirit: "the Spirit's faithfulness and the Spirit's surprises" (43–47), which is in line with Polkinghorne's contribution. Yong includes the importance of speaking in tongues as a hermeneutical key for understanding the variety of scientific voices that "declare the glory of God." Especially in Yong's contribution, theology receives an important role in the unified understanding of what so many, and such diverse, scientists are finding. Yong is especially keen on the way divine action can be worded in relation to science in general and underlines the hermeneutical character of all sciences, including theology. This overlaps nicely with what Clément, the chemist from Abidjan, argued (see Chapter 5).

Without arguing about the specific content or proposals of these examples, these contributions are particularly important for us because these authors communicate how scientific understandings are related to God's presence and action in such a way that a fruitful dialogue with the holistic approach of the research population seems to be attainable. In the context of Polkinghorn's,

Smith's, and Yong's texts, "Science as a place of revelation" as argued by the academics from Yaoundé makes sense.

3 To Conclude

In Chapter 6 we argued that in our understanding of intercultural theology we focus on the conversion of culture by Christian faith and therefore transformations of culture are important indicators. We then referred to the example of the *baruti* and their role in the transformation of the healthcare in Botswana (Feierman and Janzen 2011). A catholic approach to science and religion therefore mainly concentrates on the understanding and facilitation of this transformation through the knowledge of creation and God.

The studied discourses show that these African cases offer interesting ways of further understanding this transformation because there is a strong awareness of being between different cultural forces. This awareness by the participants, most explicitly by the students from Yaoundé but also palpably in the other groups, makes both a transformation of the traditional and a revision of the North Atlantic understandings probable. The overview of the major positions of the debate in the North Atlantic world by Barbour shows that there is also a discontent with the nineteenth century concepts in the Northern hemisphere. However, our review of Van Huyssteen's *Alone in the World?* shows how difficult it is to move beyond this discontent without the context of an intercultural encounter. Concerning the debate on science and religion, cultural transformation is therefore far more probable in Africa and in other contexts that try to deal with the hegemonic position of North Atlantic science from a different cultural context. Here our intercultural theological preference for what we called marginalized contexts (see Chapter 6) proves its relevance.

However, as in every process of conversion, the outcome is not certain. During the last research session, the students from Yaoundé expressed their doubts about whether it would really be possible to develop a proper, Cameroonian or francophone African perspective on science and Christian faith, given the economic, political, and academic power of the West. The example of Feierman and Janzen illustrates that the changes often need 'middle steps' and 'middle figures' such as the *baruti*. Finally, intercultural theology not only studies transformative processes of intercultural encounters but also helps to share the benefits of these changes worldwide. The effects of this are similarly uncertain, although the overcoming of the opposition between science and religion

seems an attractive perspective for many scientists in the West (Howard Ecklund 2010). However, we have hope that when the Catholic awareness among scientists grows, that which is brought forward in one part of the worldwide community will also be fruitful in the other parts.

Annexes

1 Online Survey

Introduction

Bienvenue!

Ce questionnaire fait partie de l'étude dont le but est de comprendre les perspectives d'Afrique francophone sur la relation entre science et religion. La présente recherche est conçue par l'Université Protestante de Théologie (PThU) aux Pays-Bas, en partenariat avec les Groupes Bibliques Universitaires d'Afrique Francophone (GBUAF), le Groupe Biblique des Elèves et Etudiants du Cameroun (GBEEC), le GBU-Côte d'Ivoire et le GBU-République Démocratique du Congo. La méthodologie participative de cette étude est conçue par PThU en coopération avec l'Université de Radboud.

Cela prendra environ 30 minutes pour remplir ce questionnaire. Vous pourrez le faire soit le mardi 19 mai ou le mercredi 20 mai 2015. S'il vous plaît, veuillez le remplir une seule fois et sans pause.

Nous vous remercions pour votre participation. Klaas Bom

Chercheur à PThU

Informations générales

Les questions suivantes sont en rapport avec vos antécédents.

Q1. Etes-vous universitaire ou étudiant ?
- Universitaire
- Etudiants en master ou en PHD

Q2. Dans quel pays étudiez-vous ou travaillez-vous en ce moment ?
- Cameroun
- République Démocratique du Congo
- Côte d'Ivoire

Q3. Quel est votre âge ?

Q4. Quel est votre genre ?
- Masculin
- Féminin

Q5. Dans quelle université étudiez-vous actuellement ?

Q6. Quelle est votre filière d'étude de Master ou de PHD ?

Q7. A quelle dénomination chrétienne êtes-vous affiliés ?
- Catholique-Romaine
- Anglicane
- Protestant traditionnel (Luthérien, Réformé, etc.)

- Evangélique (Baptiste, etc.)
- Pentecôtiste traditionnelle
- Pentecôtiste-charismatique (= 'neo-pentecostal')
- Autre

Q8. Veuillez indiquez votre engagement dans la foi chrétienne sur une échelle de 1 (pas du tout engagé, être un chrétien est simplement une question d'identité culturelle) à 10 (très engagé et cela se démontre dans l'assiduité aux réunions de l'église, dans l'engagement communautaire, par des prières et méditations quotidiennes)

Q9. Dans votre contexte (famille, région, pays), votre engagement en tant que chrétien est généralement perçu comme :

- Positif
- Normal
- Négatif
- Ils ne sont pas au courant
- Autre

Q10. Justifiez votre réponse

Q11a. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord Ma vision de mes travaux académiques est influencée par ma foi.

Q11b. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord Ma vision de mon domaine d'étude est influencée par ma foi. Q12. Justifiez votre réponse

Q13a. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord La perspective théologique de ma dénomination est *utile* à mes travaux académiques

Q13b. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord La perspective théologique de ma *dénomination* est *utile* à mon domaine d'étude Q14. Justifiez votre réponse

Q15a. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord Ma *foi* est *utile* à mes travaux académiques

Q15b. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :

Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord Ma *foi* est *utile* à mon domaine d'étude

Q16. Justifiez votre réponse

Q17. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord La perspective théologique de ma dénomination est une *entrave* ou barrière à mon domaine d'étude

Q18. Justifiez votre réponse

Q19. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord Ma *foi* est une *entrave* à mon domaine d'étude

Q20. Justifiez votre réponse

Q21. Sur le champ spécifique de votre domaine d'étude, quels sont les problèmes les plus difficiles que vous rencontrez en tant que chrétien ?

Q22. Comment pourriez-vous décrire la relation entre votre domaine d'étude et votre foi ?

Q23. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord L'université est le lieu où la foi chrétienne peut prospérer

Q24. Justifiez votre réponse

Q25. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Dans mon pays, les chrétiens perçoivent les universités comme des endroits spirituellement dangereux.
- Oui, cette perception est très courante
- Oui, mais cette perception est rare
- Non, je n'ai jamais entendu cette perception chez un chrétien Q26. Quelle est votre opinion sur ce point ?

Q27. Dans quel sens votre background culturel africain facilite votre compréhension de la relation entre votre domaine d'étude et la foi chrétienne ? Expliquez.

Q28. Veuillez indiquer sur l'échelle ci-dessous si vous êtes d'accord ou pas avec les énoncés suivants :
Fortement en désaccord Pas d'accord Neutre D'accord Très d'accord Je discute sur les questions et les perceptions concernant mon domaine d'étude et la foi avec mes pairs (étudiants)

Q29. Justifiez votre réponse.

Q30. Veuillez résumer

Pourriez-vous mentionner cinq concepts centraux ou mots-clés qui sont cruciaux pour votre compréhension de la relation entre la foi chrétienne et votre domaine d'étude ?

2 Lists of Participants

2.1 *Yaoundé*

Students from Yaoundé

Code/name	Gender	Discipline	Denomination
YaEt1 = Acha	F	Sociology	Protestant-Evangelical
YaEt2 = Eseck	M	Urban planning	Roman-Catholic
YaEt3 = Patrick	M	Linguistics	Protestant-Evangelical
YaEt4 = Junior	M	Law	Protestant-Evangelical
YaEt5 = Joaddan	F	Translation	Protestant-Evangelical
YaEt6 = Cedric	M	International Relations	Protestant-Evangelical
YaEt7 = Élias	M	Geography	Pentecostal
YaEt8 = Mairama	F	Economics	Pentecostal
YaEt9 = Loïc	M	Health sciences	Protestant-Evangelical
YaEt10 = Asta	F	Health sciences	Protestant-Evangelical
YaEt11 = Enow	M	Theology	Protestant-Evangelical
YaEt12 = Brice	M	Education	Protestant-Evangelical
YaEt13 = Janvier	M	Law	Protestant-Evangelical
YaEt14 = Armelle	F	Environmental Studies	Protestant-Evangelical

Academics from Yaoundé

Code/name	Gender	Discipline	Denomination
YaP1 = Armel	M	Physics	Protestant-Evangelical
YaP2 = Hervé	M	Philosophy	Protestant-Evangelical
YaP3 = Marie	F	Chemistry	Protestant-Evangelical
YaP4 = Tabot	M	Mathematics	Protestant-Evangelical
YaP5 = Martha	F	Urban planning	Pentecostal
YaP6 = Félix	M	Medicine	Protestant-Evangelical
YaP7 = Ayuk	M	Computer science	Protestant-Evangelical
YaP8 = Pascal	M	Economy	Protestant-Evangelical

Code/name	Gender	Discipline	Denomination
YaP9 = Ullrich	M	Physics	Roman-Catholic
YaP10= Amira	F	French	Roman-Catholic
YaP11 = Lachime	M	Theology	Protestant-Evangelical
YaP12 * = Clémentine	F	Biochemistry	Protestant-Evangelical
YaP13* = Tanyi	F	Literature	Protestant-Evangelical
YaP14* = Yaya	M	History	Protestant-Evangelical
YaP15* = Maëlla	F	Tourism	Protestant-Evangelical
YaP16* = Abigaelle	F	Law	Protestant-Evangelical
YaP17* = Aminou	M	Geology	Protestant-Evangelical

* participated in the last session only.

2.2 *Abidjan*

Students from Abidjan

Code/name	Gender	Academic discipline	Denomination
AbET1 =Aicha	F	Communication	Roman-Catholic
AbET2 = Rose	F	History	Pentecostal
AbET3 = Nadège	F	Law	Roman-Catholic
AbET4 = Priscilla	F	Law	Pentecostal
AbET5 = Emmanuel	M	Philosophy	Protestant-Evangelical
AbET6 = Adama	M	Law	Protestant-Evangelical
AbET7 = Séverin	M	Modern Languages	Protestant-Evangelical
AbET8 = Awa	F	Psychology	Protestant-Evangelical
AbET9 = Nessa	F	English	Protestant-Evangelical
AbET10 = Colombe	M	Broadcasting studies	Pentecostal
AbET11 = Fabrice	M	Sociology	Protestant-Evangelical
AbET12 = Princesse	F	Music	Pentecostal
AbET13 = Josué	M	Music	Pentecostal
AbET14 = Junior	M	Philosophy	Protestant-Evangelical
AbET15 = Aristide	M	Economics	Protestant-Evangelical
AbET16 = Rebecca*	F	Sociology	Protestant-Evangelical
AbET17 = Oriane*	F	Criminology	Protestant-Evangelical

* participated in the last session only.

Academics from Abidjan

Code/name	Gender	Academic discipline	Denomination
AbProf1 = Stéphane	M	Linguistics	Protestant-Evangelical
AbProf2 = Rebecca	F	French	Pentecostal
AbProf3 = Fidèle	M	Botany	Protestant-Evangelical
AbProf4 = Kouassi	M	Educational Psychology	Pentecostal
AbProf5 = Kone	M	Cultural development	Protestant-Evangelical
AbProf6 = Clément	M	Chemistry	Pentecostal
AbProf7 = Yao*	M	Economics	Protestant-Evangelical
AbProf8 = Jacob*	M	Arts and cultural development	Protestant-Evangelical
AbProf9 = Issouf*	M	Cultural animation	Pentecostal
AbProf10 = Jaures*	M	Sociology	Protestant-Evangelical

* participated in the last session only.

2.3 *Kinshasa*

Students from Kinshasa

Code/name	Gender	Academic discipline	Denomination
KiEt1 = Destin	M	Public works	Protestant-Evangelical
KiEt2 = Merveille	F	Polytechnics	Pentecostal
KiEt3 = Armand	M	Trade	Pentecostal
KiEt4 = Keicha	F	Styling and modelling	Protestant-Evangelical
KiEt5 = Rishi	M	Computer science	Protestant-Evangelical
KiEt6 = Cardin	M	Electricity	Pentecostal
KiEt7 = Staelle	F	Computer science	Pentecostal
KiEt8 = Lionel	M	Law	Pentecostal
KiEt9 = Régis	M	Public works	Protestant-Evangelical
KiEt10 = Nipcia	F	Urban planning	Protestant-Evangelical
KiEt11 = Gloire	M	Medicine	Pentecostal
KiEt12 = Congo	M	Communication	Pentecostal
KiEt13 = Grasnie	F	Sociology	Pentecostal

Academics from Kinshasa

Code/name	Gender	Discipline	Denomination
KiP1 = Paul	M	Theology	Protestant-Evangelical
KiP2 = Marc	M	Mechanical construction	Pentecostal
KiP3 = Jean	M	Administration	Protestant-Evangelical
KiP4 = Luc	M	Theology	Protestant-Evangelical
KiP5 = René	M	Theology	Protestant-Evangelical
KiP6 = Augustin	M	Christian philosophy	Roman-Catholic
KiP7 = Musimbwa	M	Spirituality and African religions	Roman-Catholic
KiP8 = Espoir	M	Mechanical engineering	Pentecostal

3 Models Built by the Researchers and the Participants

The researchers have built for every group a so-called 'concept-model' (the function of the concept models is explained in Chapter 2). The groups have built their own model. Only one group, that of the students from Kinshasa, have made an alternative model during the second research session. Below, the presentation of the models is organized by city.

3.1 *Yaoundé*

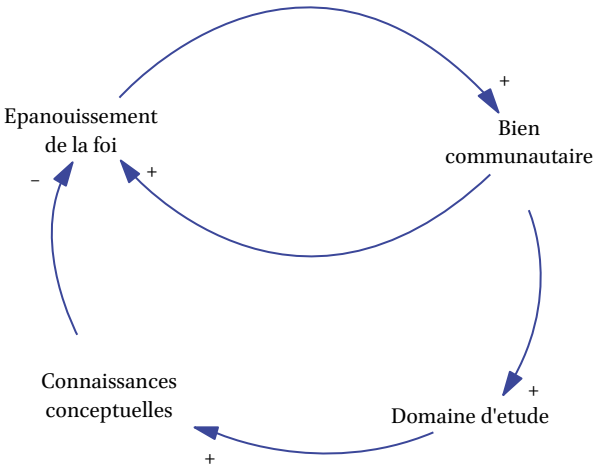

FIGURE YS1 Concept model built for the students

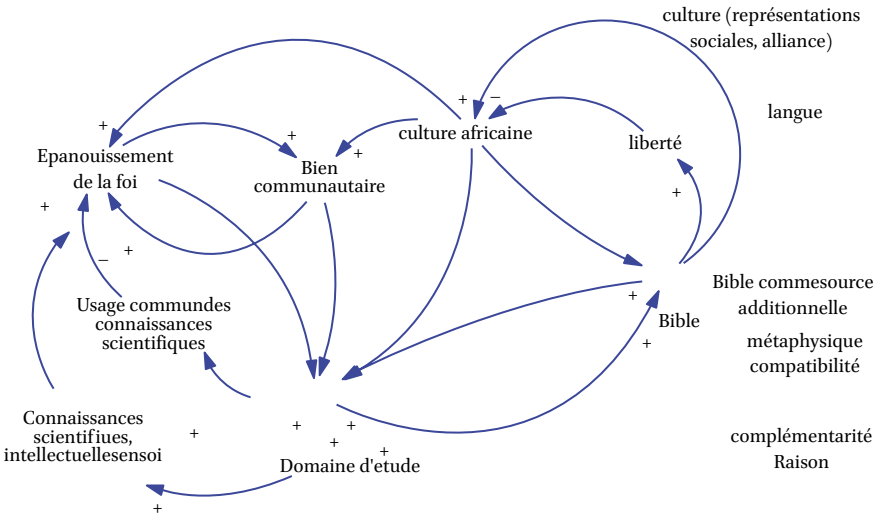

FIGURE YS2 Model built by the students from Yaoundé

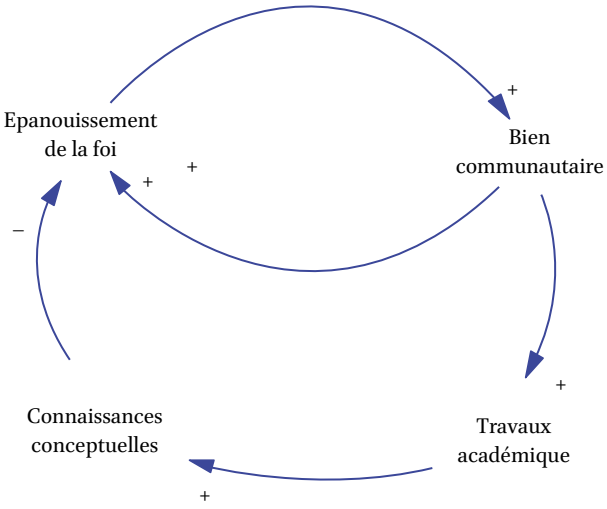

FIGURE YA1 Concept model built for the academics

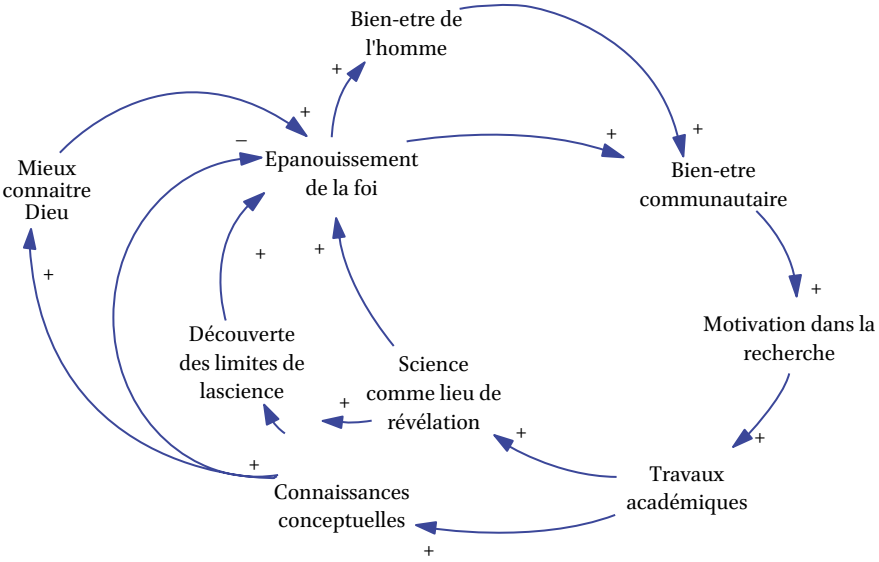

FIGURE YA2 Model built by the academics from Yaoundé

3.2 *Abidjan*

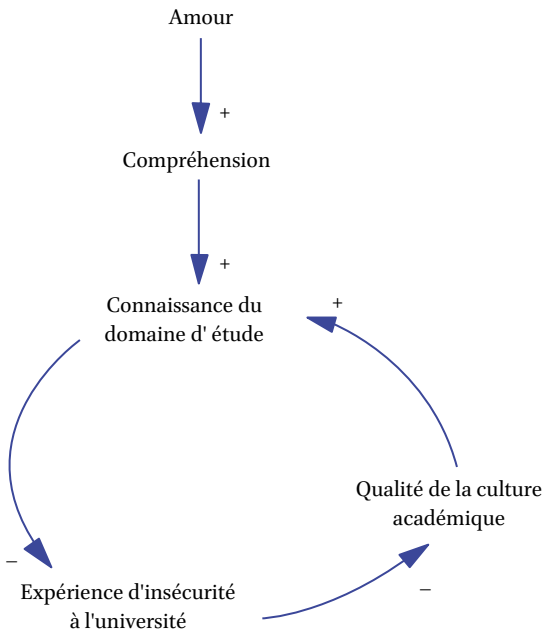

FIGURE AS1 Concept model built for the students

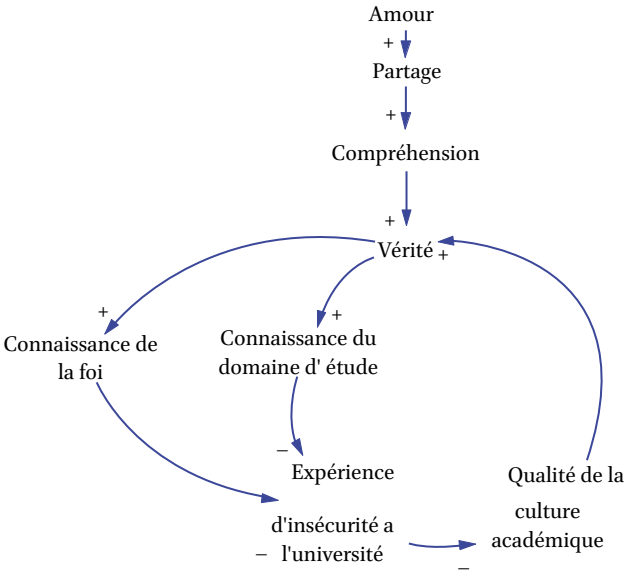

FIGURE AS2 Model built by the students from Abidjan

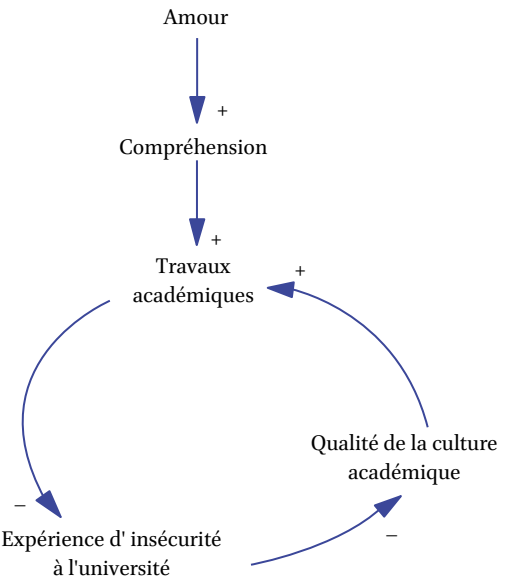

FIGURE AA1 Concept model built for the academics

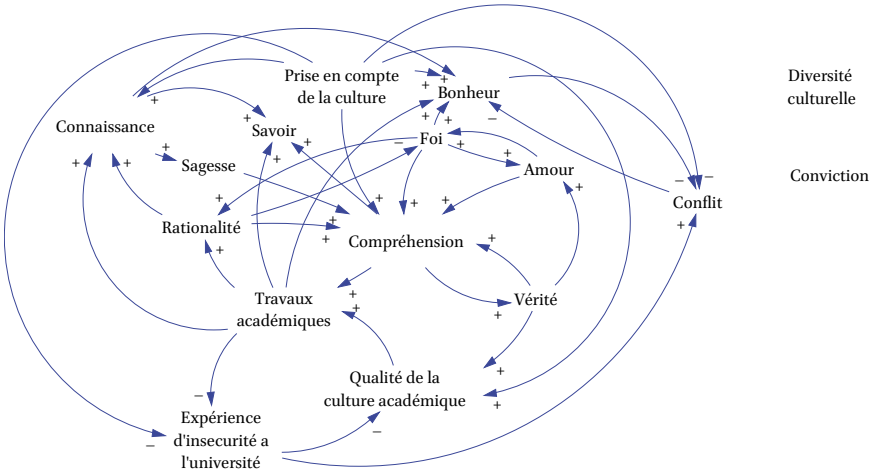

FIGURE AA2 Model built by the academics from Abidjan

3.3 *Kinshasa*

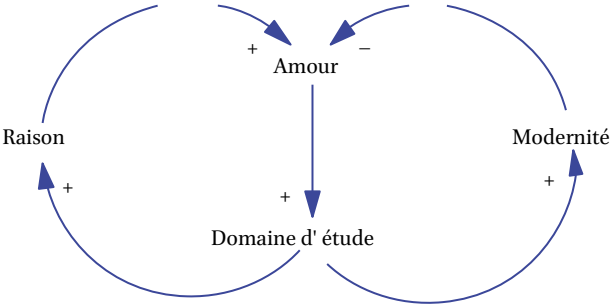

FIGURE KS1 Concept model built for the students from Kinshasa

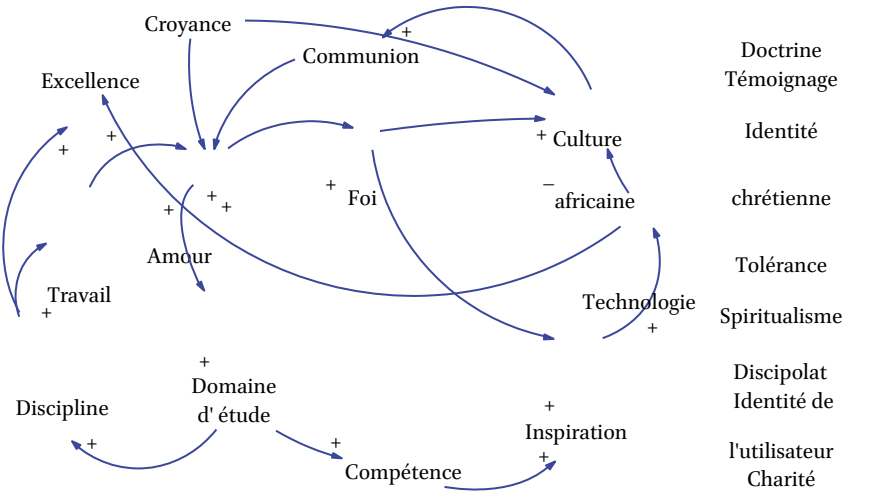

FIGURE KS2 First model built by the students from Kinshasa

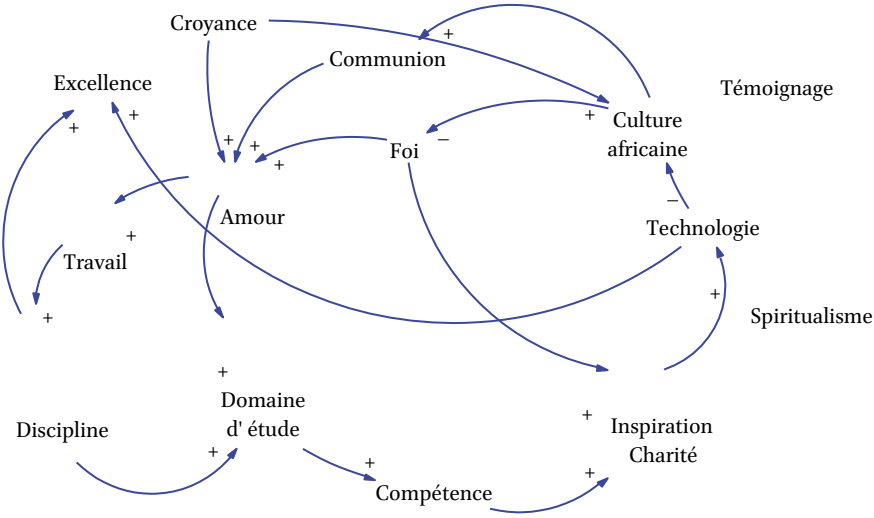

FIGURE KS3 Revised model built by the students from Kinshasa

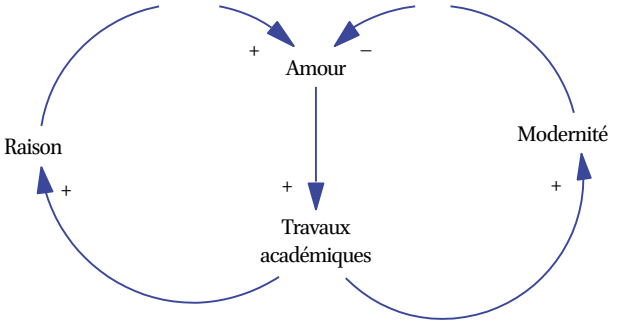

FIGURE KA1 Concept model built for the academics from Kinshasa

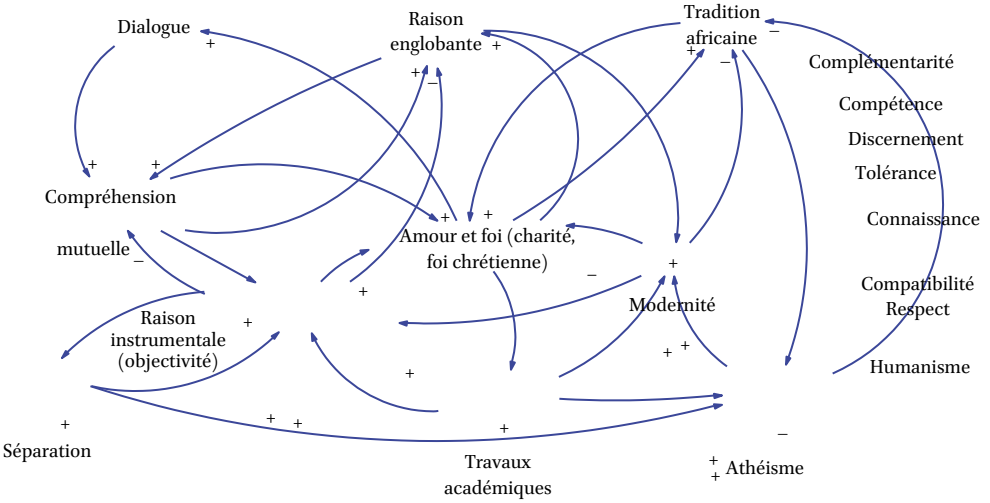

FIGURE KA2 Model built by the academics from Kinshasa

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