

# A CONTRIBUTION TO THE DEBATE ON SCIENCE AND FAITH BY CHRISTIAN STUDENTS FROM ABIDJAN

*by Klaas Bom and Benno van den Toren*

*Abstract.* The science and faith debate is dominated by Western voices. In order to enrich this debate, the authors study the discourses of different groups of Christian academics and master's students in francophone Africa. This article describes the process of reconstructing and analyzing the discourse of a group of master's students from Abidjan (Ivory Coast) with the help of group model building and focus groups. Three characteristic features that emerge from this discourse include the foundational position of faith, the central role of truth, and the ambiguous connotations of the term "science" in this context. The reconstructed discourse is then brought into conversation with the North Atlantic debate, with a special focus on the concept of scientism.

*Keywords:* Christian students; francophone Africa; group model building; scientism; theological reconstruction

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The Western dominance of the science and faith debate comes as no surprise. In most texts on this subject, a Western cultural context is presupposed, so much so that often no mention of context is made. The use of "Western science" can, therefore, sound pleonastic. The strong monocultural tendency goes against recent scientific developments, especially when science is understood as including all academic disciplines as we do. In the first place, it is not in line with developments in the philosophy of science since the sixties. The emphasis on the role of major theoretical paradigms in science, and their related worldviews, by authors like Thomas Kuhn and Imre Lakatos underlines the importance of the cultural context (including politics, society, religion, and so on) of academic activities

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(Barbour 1997, 130–61; 2008, 261; Van den Brink 2009, 46–67). The strong influence of postcolonial approaches, especially in the social sciences, not only points to the importance of the cultural context, but particularly to the need to tackle Northern or Western dominance because of its oppressive and obscuring effects. Furthermore, the monocultural tendency does not fit with recent historical inquiry. David Livingstone's geography of science, for example, shows that science is not a "perspective from no-where" (2003, 184). On the contrary, the cultural contexts in which scientific studies are conducted and presented influence both research and the reception of theories. Finally, although other academic disciplines could also be mentioned here, a monocultural approach is theologically problematic. Seen from Paul's perspective that only "together with all the Lord's holy people" (Ephesians 3:18 NIV) can the love of Christ be known, a Western-dominated perspective is extremely limiting and weakens the catholicity of the church worldwide (Schreiter 1997). Studying perspectives on science and faith from other cultural contexts is therefore not merely an interesting pastime but a vital undertaking in order to keep in step with key scientific developments. Nevertheless, it is not the goal of developing Western scholarship that makes perspectives from other cultures indispensable, but the intrinsic value of the perspectives and the related intercultural conversations.

We do not want to suggest that we are the first to mention this. Apart from the attention paid to the relation between science and religions other than Christianity, which also normally involve a more contextual approach, there has recently been a more specific interest in the developments of the debate around the globe. The June 2015 issue of *Zygon: Journal of Religion and Science* offers a nice example of this fresh interest in the global "state of the art," presented as "Religion and Science around the World." The German, Chinese, Latin American, and South African approaches show, however, that the different authors' understandings of the importance of the cultural context are diverse. It is probably not accidental that Ernst Conradie and Cornel du Toit's (2015) article about the South African situation places considerably more emphasis on the local culture and how it differs from the Western context than the other contributions, for example, in the appreciation of knowledge. Although the other authors focus on different themes, this does not imply that the cultural differences in comparison with the North Atlantic context are far less important in Latin America or China, or that the proper German (theological) understanding of this context does not have its own specific characteristics. George Zhou (2012) underlines the importance of all the cultural backgrounds of the students in science education, taking his own experiences from a Chinese background as an example. We follow a similar line of thought in this article. In order to come to a better understanding of the importance of the cultural backgrounds of the different perspectives on science and religion, we studied the discourse on science and faith of a group of Christian students from

Abidjan, Ivory Coast. In this article, we explain the process of reconstructing and analyzing a discourse, and explore what this discourse can contribute to the Western debate on science and Christian faith. We engage in this debate from a systematic theological perspective and therefore we start our reflections with the importance of such discourses for doing theology. In the second section, we provide some necessary information about and justification of the methods we used for this reconstruction, especially group model building (GMB). Subsequently, the reconstructed discourse of the students in Abidjan is presented and analyzed. In the fourth section, we connect the reconstructed discourse to the North Atlantic debate in order to facilitate an intercultural conversation and conclude with an outlook concerning further research.

#### FROM ORAL DISCOURSE TO SYSTEMATIC THEOLOGY

One of the major problems caused by the Western dominance of the debate is that texts discussing science and faith in which other cultural outlooks are elaborated are scarce. Although Ignacio Silva (2015, 499–500), for example, provides a nice overview of the developments of the debate in Latin America, he admits that it is too early to speak of solid, thoroughly Latin American written contributions to the global debate. This does not deny the existence of lively and interesting local debates on science and religion in different world regions. Because of our experiences participating in debates about science and faith in Africa and Latin America, we chose to start with these debates among professors and students. Since we wanted to connect to these “oral traditions,” we had to engage in the reconstruction of the discourses on science and faith of specific groups in a certain world region. Conradie and du Toit’s specific emphasis on cultural context undergirds our impression that in the different African cultures the differences in comparison with North Atlantic perspectives, especially when it comes to science, are probably more pronounced than in other cultural settings. This potential contrast gives an African case study a certain attractiveness. We chose French-speaking Africa as the region for this research because the Christian traditions in this region are less well-known in the English-speaking world and the peoples here have less access to the international literature on science and faith. Also the diversity of traditional cultures and the colonial and postcolonial impact of French culture increase the probability of discovering alternative stances on science and faith. In particular, the concept of *laïcité*, which refers to a strict separation of state and religion, has had a long history in the field of education, not only in France but in its colonies as well (Holder and Sow 2013). In order to conduct this research, we selected three major university cities in the French-speaking part of Africa, in different countries with different colonial backgrounds: Abidjan (Ivory Coast, a former French colony), Yaoundé (Cameroon, first

colonized by Germany and afterwards partly French partly British until independence), and Kinshasa (Democratic Republic of Congo, a former Belgian colony).

Discourse analysis is defined by Stephanie Taylor (2001) as a “close study of language in use.” The concept of “discourse” includes the assumption that language is structured and that its meaning closely relates to the context in which this structure is used (Philips and Jorgensen 2002, 12). One of the classic questions, provoked especially by the impact of Michel Foucault’s theory of discourse, is about the hegemonic character of the discourse and the role of agency of the individual (or group) who uses it. Carol Bacchi (2005), discussing the use of “discourse” in feminist political sciences, defends those theories that “preserve room for subjects to move within the constraints imposed by the hegemonic discourses.” The political dimension and its related questions cannot be ignored in our research, especially because of its postcolonial context. This was underlined by the period of student strikes and unrest at the universities in Abidjan just before the research sessions took place. Despite the state universities’ self-qualification as *laïque* (secular), the hegemonic discourse on science and religion in the francophone African context is not to be identified with dominant Western perspectives or even more specifically with the typical French concept of *laïcité*. During the research sessions it appeared that the traditional understandings of the relation between science and religion, which are mainly anti-Western, are influential. The different denominations and churches the participants belong to appeared to have a considerable impact as well. Because these discourses represent different powers, it is important to presuppose “room to move” for individuals and groups in order to understand how they negotiate their own position.

“Discourse” is a general term that can be applied to all kinds of language. In our research it refers specifically to oral language used during debate sessions. The debate is not meant to be merely theoretical but to be built on the experiences of the participants. Given this aim, in our preliminary survey we used the concepts of “field of study” (“*domaine d’étude*”) for the students and “academic work” (“*travaux académiques*”) for the academics instead of “science.” The discourse, therefore, concerns concrete scientific activities. This discourse is perceived as a theological voice, drawing on theological action research developed by Helen Cameron and others (2010). They underline that their approach is “theological all the way through” and oppose a typical modernist approach that separates world and church, secular and sacred, theory and practice, as well as practical and systematic theology. Within theology, the science and faith debate is normally related to systematic theology. In our research we want to make a systematic theological contribution but we start with the practices and the convictions of those who are scientifically engaged. Cameron et al. (2010, 49–60) helpfully distinguish four voices of theology. The first voice

is “operant theology.” Clare Watkins (2015, 35) argues that practices themselves are “embodiments of faith seeking understanding,” Cameron et al. argue, and are therefore not to be perceived as mere data but as a proper form of theology. Espoused theology, the second voice, accompanies the operant theology, often in spoken but also in written form. It is defined as “the theology embedded within a group’s articulation of its beliefs” (Cameron et al., 2010, 54). The discourse in our research is an example of this theological voice. These two voices of theology are connected with “the normative voices of Christian theology” and formal theology, that is, academic theology. Theology is thus defined as the ongoing conversation between these different voices (Watkins 2015, 37). In our research, GMB and focus groups’ debates are the main tools used to collect and analyze the espoused theology of Christian academics and master’s students from three major university cities from francophone Africa. Cameron, Watkins, and their colleagues underline that the four voices do not exist in their “pure” form. The espoused theology we study, for example, also contains aspects of normative theology. Because the majority of the participants are from a Protestant and Pentecostal background, Scripture is the most referenced normative source. At the end of the article, we bring the espoused theology into conversation with the formal voice of Western theology to encourage further conversation.

#### GMB AND THE RESEARCH TRACK

We understand the discourse we reconstruct as a theological voice that should be related to a broader theological conversation. However, the reconstruction and analysis of the debates cannot be realized without the participants themselves. We therefore need a participatory research method (Bom in press). Additionally, because we understand the discourse specifically as the result of a debate between participants, this method should focus on the dynamics of the discourse of a group rather than of individuals. The group character of the research is especially helpful in African contexts, where theology is often developed in communal conversation (Munikwa and Hendriks 2011). Because we want the research to be participatory, instruments like surveys or interviews do not sufficiently guarantee the necessary participation in the analysis and the African ownership of the reconstruction. Finally, as we aim to make a contribution to the science and faith debate in systematic theology, the research method should be helpful for such an approach. GMB best fulfills these needs. GMB stems from the large family of system dynamics–related research tools in the natural and social sciences and is recognized as an instrument for discourse analysis (Luna-Reyes et al. 2006). It is a tool used to understand and help decision making in groups and often applied in management sciences (Richardson, Anderson, and Luna-Reyes 2012; Rouwette, Bleijenbergh,

and Vennix 2016). Bleijenbergh, Korzilius, and Verschuren (2011) count GMB among what they call “participative research methods.” The GMB version we use provides so-called expert-based research. In a series of group sessions, experts or shareholders describe their situation in the form of a qualitative model assisted by a facilitator and a modeler. Below we will present and explain such a model. The model is a visualization of the confrontation of the ideas of the participants. Bleijenbergh et al. underline GMB’s holistic approach, which prevents the participants from concentrating on a limited number of themes. The model construction has two fundamental elements: the variables and the connecting arrows between these variables. In our research, we understand the variables as key concepts related to the practices of scientific engagement and the involvement of faith. Every session starts with the collection of these variables. We used a survey to collect these variables, as explained below, but we also did this at the beginning of every session, so that everyone was included and heard at the start of the meeting. During the process, the participants can add new variables as well. These variables are graphically connected to each other with the help of arrows. GMB permits only two types of relation (arrow)—positive (see + sign at the side of the arrow in the model) or negative (see – sign at the side of the arrow). The positive arrow indicates that the variables on both ends diminish or increase in the same direction; the negative arrow indicates that the development of both variables moves in an opposite direction.

With help of the local partners, we organized two GMB sessions in each city (May–June 2015). We decided to separate master’s students and academics in order to avoid influence along hierarchical lines. A few months later (October–November 2015), we conducted focus group sessions in the same cities in which the models were confirmed and analyzed. Unfortunately, the participants in the GMB sessions were not identical to those in the focus groups; 67% of the participants in the student focus group sessions in Abidjan had participated in the GMB session a few months before.

With help of two GMB specialists from Radboud University Nijmegen, we designed a research track.<sup>1</sup> This track started with a small online survey of the participants before the GMB sessions (beginning of May 2015), followed by the GMB sessions in a specific city and a selected group. The goal of the preliminary survey was to help the participants focus on the theme, to acquire some relevant information about their backgrounds, and to collect some basic notions concerning the debate on science and faith from the perspectives of the participants. In order to prepare the participants, we mainly asked for their reaction to several theses concerning the relation between science and faith (five options), like “My faith is a hindrance to my study” (in the case of the master’s students) and “University is a place where Christian faith can prosper” (both groups). One of the final questions asks

for some main keywords that capture what they argued before about the relation between science and faith. We used these concepts gathered in the survey to make an example of a small model, a so-called “concept model.” The presentation of a “concept model” at the start of a GMB session enables the explanation of how model building functions with help of crucial concepts selected by participants themselves (Richardson 2013). The “concept model” is very simple and the participants usually change it significantly during the GMB session. As explained above, it mainly has an instrumental significance (i.e., to explain how GMB works), although the changes made during the sessions can be very revealing, as they were in this particular case.

In Abidjan, the three-hour GMB session took place in a well equipped and nicely situated room, close to the university district Cocody. The GMB session included female and male master’s students from both different disciplines and different denominational backgrounds (see the Appendix). The selection of the participants was made with help from the local partner, Groupes Bibliques Universitaires (GBU)–Côte d’Ivoire, deliberately including participants from other Christian student organizations. Within two weeks after the session, the participants received a summary of the debate session and were invited to send their comments to the researcher. The models constructed during the sessions are the starting point of the next phase of the research: the consolidation of the model and a contextual analysis in focus groups. The focus groups sessions fit the conversational approach of Cameron and Watkins, GMB, and the theological research of practices (de Roest 2015). In the case of Abidjan, the two focus group sessions each took nearly two hours. After revisiting the model, which was persistently confirmed by the participants, we discussed a practical case and spoke about the influence of the churches and the traditional cultures on the group’s perceptions of the relation between science and faith. Although the facilitator introduced the case and the two themes, he did not participate in the debate. All GMB and focus group sessions were filmed and audiotaped and afterwards transcribed and analyzed with help of Atlas-ti.<sup>2</sup>

#### MODELS AND PERSPECTIVES ON SCIENCE AND FAITH FROM STUDENTS FROM ABIDJAN

After a short explanation of the research and how a GMB session functions, we started the discussion with the concept model. Based on the survey outcomes, we had made the concept model for the session, as shown in Figure 1.

The students in Abidjan finally agreed on the model presented. On the right-hand side is a list of collected variables that in the end were not taken into the model. This model was confirmed and further analyzed in the two focus group sessions (see Figure 2).

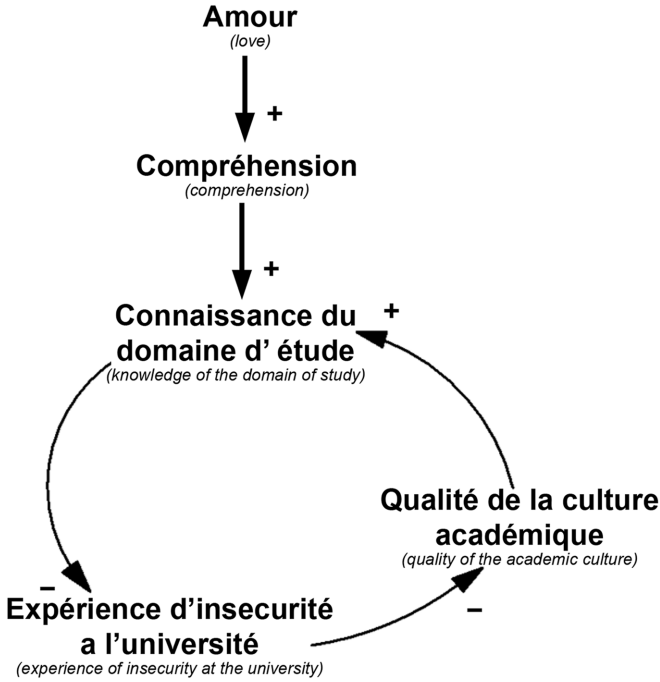


Figure 1. Concept Model for the Students from Abidjan

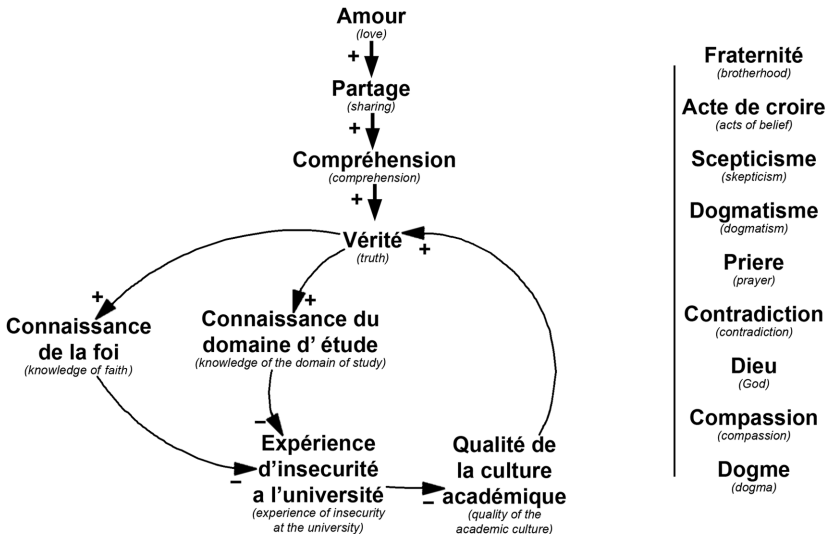


Figure 2. Model Built by the Students from Abidjan



*The GMB Session*

After “sharing” (“*partage*”) was added between “love” (“*amour*”) and “comprehension,” the discussion began with the question of whether “love” should be maintained because “sharing” could include the notion of love. Nevertheless, several participants insisted on the importance of “love.” Other concepts, like “brotherhood” were considered but finally not included in the model. The central debate in this group, however, was dedicated to the question of whether there should be only one general term for all kinds of knowledge, as participant Emmanuel and others argued (e.g., P1, 255). Aicha and Nadège argued that general knowledge includes all kinds of knowledge and the “knowledge of the domain of study” is a specification (P1, 261, 265). Adama, in contrast, maintained that this kind of general knowledge was too vague (P1, 269). Emmanuel was willing to specify general knowledge further, suggesting that it could be defined as knowledge of study and religious knowledge (P1, 277).

In the midst of this debate, the issue of “insecurity at the university” came up and appeared to be a difficult one to tackle (P1, 293–371). Someone said it was not relevant, because there was no structural relation between the scientific work and this (political) violence. Emmanuel argued that this issue is not only related to the very recent student strikes but that there is an academic culture of violence at the university, you could “be battered” or “thrown out” (P1, 344). Finally the group decided to maintain “insecurity” as an essential element of the model.

In the last stage of the session, the discussion came back to knowledge. Nadège, who played an important role in the final stage of the model building, brought “truth” in relation to “insecurity at the university” through the two types of knowledge (P1, 535). Aicha supported her when she argued that “for me the knowledge of faith comes first and the knowledge of the field of study supports this. Take, for example, the tolerance that is advocated by faith. . . . It helps you to avoid certain situations and therefore avoid experiences of insecurity.”<sup>3</sup> Emmanuel and Josué defended the notion of general knowledge explaining that this is not meant to be an abstraction, but a knowledge that is present in all sciences and in faith (P1, 407–15). Nadège, Fabrice, and Princesse, however, argued that “general knowledge” would make it impossible to distinguish between science and faith (P1, 419–36). When the idea of general knowledge was left out, however, the understanding of the relation between “knowledge of faith” and “knowledge of the field of study” became uncertain. The idea that “knowledge of faith” makes a positive contribution to “knowledge of the field of study” was quickly accepted, but the opposite, from “knowledge of the field of study” to “knowledge of faith,” seemed to be more problematic. Although there was a broad consensus that the two types of knowledge were complementary, this variable was not inserted into the model. The

discussion of this theme finally resulted in a simpler version of the model that was approved by all participants. The parallelization of both types of knowledge establishes both a positive dependence on “truth” and a negative relation toward “insecurity at the university” (P1, 529–35). This implies that not only knowledge of the field of study but also knowledge of faith contribute indirectly to the academic culture, and the academic culture contributes to “truth,” as Josué argued (P1, 601, 608).

### *The Focus Group Session*

Unfortunately, a substantial number of the participants in the GMB session could not participate in the focus group session due to other obligations and the uncertainty of life in Abidjan, so there were only six participants. First, the model built in June was revisited and consolidated. Subsequently, the facilitator gave three “challenge” questions to generate more insight into how the participants themselves understood the model. The first involved the presentation of a concrete case of a doctor who deals with the relation between science and faith in practice to clarify how the participants would relate the model to scientific practices. The second, on the relation between the denominational background of the participants and the model, and the third, concerning the relation between the model and the traditional cultures of the participants, were meant to explore the participants’ reflections on how their context influences the model.

The discussion of the case in the focus group resulted in a rich palette of opinions and meaning concerning the relation between science and faith. The case is described below.

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 cannot make a diagnosis because the outcomes of the exams do not point to a defined pathology. In that case she concludes there must be a spiritual problem and she decides to pray with the patient.

During the debate about this case, some of the participants recognized the handling of the patient by the doctor as corresponding to their model, in which both types of knowledge are used. Emmanuel and Nadège underlined the distinction between the two types of knowledge, each with its own domain (P7, 100–13, 137–38), and Emmanuel concluded that this case offers “a nice example of the marriage between faith and [science].”<sup>4</sup> Later on he added that the knowledge of faith sometimes appeared to be very useful in his field of study, so he repudiated a strict separation between the two (P7, 177). Adama, however, argued that what the doctor does is not in line with the model. In his understanding, the model says that the knowledge of the field of study is limited. Therefore, she should have

prayed before she knew the outcomes of the exams, because “medicine is medicine, but it is God who heals” (see also P7, 115, and 149).<sup>5</sup> And Princesse, reacting to Emmanuel, firmly opposed “dissociating” the two kinds of knowledge: “I think that faith supports science and its development” (see also 212).<sup>6</sup> Finally, all accepted that faith is the basic layer (for Nadège, see P7, 182, for example), which makes it foundational for all knowledge, as expressed during the GMB session, although Emmanuel maintained that it is not always possible to unite faith and science (P7, 196, 216, and 247).

The second question consisted of analyzing the model from the perspective of participants’ religious backgrounds. First, the facilitator asked about how education and academic study were viewed in their respective churches and denominations and invited them to consider whether they recognized any influence of this background in the model. It appeared that the extent of affiliation or belonging to a denomination is connected to the concrete situation of the family. For example, both Emmanuel and Adama were sons of a pastor of a traditional evangelical church and had a specific feeling of belonging, while Nadège, although an engaged Roman Catholic herself with a Muslim father and an evangelical mother and brother, had a different understanding from her affiliation. According to the participants, generally both Roman Catholics and Protestants have a very positive and facilitating attitude toward education. At the level of higher education, however, Emmanuel identified a problem. A critical academic approach is not really appreciated (P8, 036). Others confirmed this and explained that certain disciplines, like philosophy and psychology, have a negative reputation. Junior confirmed that in his denomination a change is taking place: university education is much more valued now than several years ago and the denomination wants to start its own (theological) university (P8, 040–041 and 059). Emmanuel and Junior argued that the distinction between the two types of knowledge in the model reflects the perspective of the churches, which are often concerned about those who are studying at university, fearing they will lose the truth of faith, according to Emmanuel (P8, 055). Distinguishing “the knowledge of faith” from “the knowledge of the field of study” would both reflect and meet these worries. “I agree,” Adama added, “Because we are university students there is this big question of truth.”<sup>7</sup> Also, the priority of “love” in the model and its relation to “sharing” is perceived as inspired by faith and so corresponding to the teaching of the churches (P8, 065–070).

Finally, we turned to the question about the influence of the traditional cultures on the model. Ivory Coast is a melting pot of cultures where many people still speak traditional languages. In the countryside it is common for people live in a traditional setting, abiding by the traditional culture. Emmanuel and Nadège appeared to belong to the same ethnic group, as did Adama and Aristide. All participants live in the big city but all

are acquainted with their cultural background and speak their traditional language, although their knowledge and appreciation of their cultures differ. Talking about the influence on the model, special attention was paid to the role of secret knowledge in traditional culture (P8, 119, 130, and *passim*), referring to the initiation rites that some of them had participated in. There were other stories about family members who wanted them to pass these initiation rites, but their parents opposed this because of their faith (both Christian and Muslim; P8, e.g., 087, 103, 157). Aristide emphasized that from a traditional perspective academic knowledge is seen as a hindrance because of its relation to colonialism, just as Christian faith is perceived as “a white men’s affair” (P8, 159). Others confirmed that the traditional opposition to the knowledge of the field of study is more substantial than in the churches. When Emmanuel stated that “the mystique and occult knowledge . . . has nothing to do with the knowledge of the field of study,”<sup>8</sup> he not only confirmed what Aristide said, but also underlined that the distinction of the two types of knowledge in the model has a parallel in the distinction between open and secret knowledge in traditional culture. We elaborate on this below. According to the participants, it is fundamental that these two types of knowledge are not mixed nor confused both from a Christian perspective and from a traditional point of view.

#### *The Main Characteristics of the Reconstructed Discourse*

Although the students had diverse opinions, their discourse had certain characteristics that give important indications about the basic ideas that are shared or to which the students feel accountable. With help of the model and the reconstructed discourse, as described above, the following major characteristics and basic ideas can be distinguished.

In the first place, faith is the basic layer of this discourse on science and faith. This is primarily expressed in the way the model originates in “love,” which is understood as a kind of source that brings forth the model. Although Nadège resists a too exclusively Christian interpretation of “love” and “sharing,” she does not oppose the Christian interpretation and background at all (P8, 070). In the model, “truth” occupies the central position. Like “sharing” it is dependent on “love” and therefore has a religious flavor. Even the two types of knowledge should not be too easily understood as being two equal ways. According to Aicha, these two types of knowledge do not have the same value but “the knowledge of faith comes first and the knowledge of the field of study supports this.”<sup>9</sup> The focus group participants confirmed this, especially Adama and Princesse.

Second, the distinction between “the knowledge of faith” and “the knowledge of the field of study” appears to be a necessary move in order to come to a constructive perception of the relation between science

and faith, according to the participants. The genesis of the model shows that these two “ways” replace the idea of only one “(general) knowledge.” In the final model, however, the unity of the knowing process is not expressed in “(general) knowledge” but in “truth,” an element that did not form part of the concept model. This initial model created by the facilitator and the modeler from the Netherlands has been changed in order to give “truth” a central place. Princesse’s interpretation of the case of the doctor (“the truth for [the doctor] is that this patient does not suffer from a physical but from a spiritual disease,” and so on) is a very explicit expression of this orientation toward “truth.”<sup>10</sup> This has two major effects:

- (1) First, knowledge is instrumentally understood as being in the service of “truth.” This leads to a more object- or reality-focused understanding in contrast to a more subject-focused perception that places knowledge at the center.
- (2) Second, although the model recognizes two types of knowledge these are not separated because both serve one truth.

The relation between the two types of knowledge, however, was not completely solved during the focus group. Emmanuel and Nadège’s understanding, which attributes a proper domain to both types of knowledge without denying the foundational truth of faith, clashed with Adama and Princesse’s interpretation, which underlines the fundamental character of the knowledge of faith. The model leaves both possibilities open. Although Emmanuel and Nadège do not defend the French concept of *laïcité* that prescribes a complete separation and requires therefore a “double truth,” a certain influence of this conception on their logic cannot be ignored. Emmanuel’s remark that the knowledge of faith is sometimes very useful in his field of study indicates, however, that his understanding does not promote a simple separation but a very clear distinction with a certain possibility of (mutual?) influence.

Third, during the GMB session some participants attempted to exclude the variable “insecurity at the university” of the model with the motivation that this contextual element is only incidental and not structural. This might be the case if it referred exclusively to a certain frailty of the university in the actual political landscape, but it seems to refer to more, because it was not removed. If we relate this to Aristide’s remark that the colonial origins of science give it a political connotation, as opposed to the local and the traditional, “insecurity at the university” seems to indicate that science cannot so easily escape its colonial origins.<sup>11</sup> We conclude from the model that, according to local experience, this insecurity is part of science’s character and (still) dominates its performance. This implies that scientific knowledge is not perceived as the only or the normative kind of knowledge, as is often the case in Europe or the United States (see below).

In a sense, the Christian faith has a similar problem, according to Aristide, although for the participants, as well as for many other African Christians, the independence of the African churches and the proper development of Christianity in Africa contribute to the perception that the Christian faith is not typically Western, let alone colonial.

The place given to “insecurity at the university” seems to be related to the opposition between “Western” and traditional. This makes the participants’ understanding of the influence of traditional culture on the model even more relevant. The focus group sessions underline that this influence is felt specifically in the distinction of the two types of knowledge. The participants argue that traditional culture presents a similar distinction between two types of knowledge, open and secret. Because of the importance of different stages of initiation, secret knowledge receives the highest appreciation. Emmanuel was very excited when he discovered that this secret knowledge is quite the opposite of scientific knowledge, which is essentially open to questioning. The traditional approach therefore defends a strict separation of its own (secret) knowledge and that of science, according to the participants. Although Beryl Bellman argues convincingly that the secrecy of this kind of traditional knowledge is not related to its content (which is often widely known by others who are not part of the restricted group), this is still an interesting observation. Bellman’s understanding of secret societies in Liberia frames the secret knowledge as the handling of certain information within a community in relation to the group’s social distinctions (Bellman 1984, 139–44). Similarly, Emmanuel’s understanding is focused on the social aspect. Scientific knowledge, with its claim of radical openness, is at odds with the social functioning of traditional secret knowledge. Scientific knowledge, therefore, challenges traditional society and community structures, because authority and social trust seem to play no substantial role in it.

From a Christian perspective, this is different. “The knowledge of faith” and “the knowledge of the field of study” are not opposed, according to the participants, but complementary. Nevertheless, despite the positive appreciation of study and science, churches are also worried about losing the distinction between the two types of knowledge. According to the students, the churches perceive the critical attitude of science as a threat, mainly because they fear that this will destroy the authority of faith. When Emmanuel and Nadège defend a proper domain for science, they seem to be asking for more space for scientific deliberation and critical questioning without rejecting the priority of faith.

#### STARTING A CONVERSATION WITH FORMAL THEOLOGY

One of the advantages of the more recent contextual approach in the science and religion debate is that it allows for intercultural comparison

and the possibility of an outside perspective on the distinctive features of the Western contribution. As we argue below, various Western authors identify “scientism” as one of the most influential features of this context. In search of an opening for a conversation between espoused and formal theology, we relate the main characteristics of the student discourse from Abidjan to the conversation about scientism.

In the recent North Atlantic debate, Taede Smedes (2006, 2008) uses the term “scientism” to describe the appreciation of science in the European and North American contexts. Mikael Stenmark (2001) distinguishes and evaluates a variety of conceptions of scientism as different understandings of science, but Smedes perceives scientism as more specifically from a cultural angle. He understands scientism “as a cultural mode of thinking,” the “tacit assumption of present-day Western culture,” and defines it as “a tacit faith or trust in science, an incorporation and internalization of scientific modes of thinking in our everyday-life mode of thinking” (Smedes 2008, 242). In order to identify scientism in the science and religion debate, he points to what Michael Potter calls “theological naturalism,” which “seeks to describe divine action in the same terms that in other parts of life are used to describe natural phenomena” (Smedes 2008, 245). When Smedes claims that Ian Barbour, one of the founding fathers of the science and religion debate, is influenced by scientism, he uses a more specific definition: “There is an assumption here that rational elements are found in religion and it is with regard to those elements that religion shares in the rationality of science. In other words, science is tacitly assumed to be the standard of rationality” (Smedes 2008, 253). In his response, Barbour explained that his definition of scientism does not refer to a cultural dimension but includes “(1) the epistemological claim that science 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). Restricting the definition does not imply that Barbour wants to minimize the importance of scientism. In Barbour’s view, Smedes perceives the complete independence or separation of (the languages of) science and religion as the best defense against scientism. According to Barbour this compartmentalization does not really protect theology against the threat of scientism (Barbour 2008, 262–66). Theology itself is part of culture and, based on Smedes’ cultural understanding of scientism, it would be nearly impossible to avoid its influence on Western theology. Barbour therefore defends the dialogue between science and religion and certainly does not exclude a form of integration between the two, as, for example, in process theology.

There are certain elements of the student discourse from Abidjan that indicate a strong contrast to scientism, both in Barbour’s more limited sense and in Smedes’s broader cultural understanding. The model shows not just one path to real knowledge but two, coming forth from “love”

and “truth.” Additionally, during the sessions the students prioritized the knowledge of faith as a basic knowledge that is sustained by scientific knowledge. This opposes both Barbour’s understanding of scientism and scientism as an (often subconscious) cultural assumption. In particular, the traditional cultural context limits the influence of science, according to the participants. Nevertheless, the separation of science and faith appears to be an attractive option for traditional culture as well as for the churches. It seems that both parties fear the critical influence of science that undermines their authority or even identity because of its colonial or Western origins. Scientific questioning and demand for demonstration or proof contradict and destroy the social context on which traditional knowledge relies. Emmanuel and Nadège reflect this attitude in their tendency to distinguish two separate domains for the two types of knowledge. Although this seems to create an overlap with Smedes’s separation of science and faith, their solution can neither be identified with his position nor with its specific institutionalized version that is represented by the French notion of *laïcité*. Hence, these students maintain one truth and recognize “the knowledge of faith” as basic and complementary to “the knowledge of the field of study.” They distinguish the two types of knowledge but do not separate them. There was only one clear expression of a more elaborate perspective on two different domains or spheres. When Emmanuel spoke about the knowledge of faith that appeared to be helpful in the domain of philosophy, his position could be compared to that of consonance, a particular form of dialogue that presupposes the idea of independent domains of science and faith (Barbour 1997, 91–92; van den Brink 2015).

The priority of love and faith in the model so passionately defended by Adama and Princesse is reminiscent of Anselm’s famous expression, *fides quaerens intellectum* (McCord Adams 1992). The centrality of truth instead of knowledge also indicates a distance from Western modernity and its strong emphasis on the (Cartesian) ego and his/her knowledge (cf. Marion 1986; Charles Taylor 1989). This distance from Western modernity, however, makes an interesting connection with late modern approaches that criticize the modern project. In the model built by the students from Abidjan, truth is the unique source of knowledge. This perspective therefore challenges all approaches that are prepared to divide the truth into different departments or languages (Barbour 2008, 261). The students’ interpretation of the model indicates that truth is closely connected to God and therefore to divine revelation. In line with this, both faith and science can be understood as instruments to receive this revelation and, consequently, it is not strange that the students perceive both types of knowledge as complementary. This understanding could easily lead to the integration of both types of knowledge, one of the four models Barbour introduces to distinguish the main positions in the science and religion debate. In particular, what Barbour calls a “natural theology” approach



(1997, 98–99; 2008, 267) seems the most appropriate way of categorizing the students' rudimentary model.

## OUTLOOK

The reconstructed student discourse from Abidjan has some intriguing characteristics. The dominance of the perspective of faith reflects not only a specific stance in the debate but also a specific cultural context, which is different from Europe or the United States. This raises the question about the relation between stance or position in the debate and context. As Barbour argues, cultural relativism is not very helpful here (Barbour 2008, 264–65), but more needs to be said on this, especially to avoid a gap between social and natural scientific understandings. Theology seems well placed to propose some more precise alternatives in view of its multicultural and intercultural dimension and the catholic claims of the Christian faith (Schreiter 1997). Although just one case study as presented in this article does not provide sufficient base for the formulation of a possible "French-speaking African approach" to the debate on science and faith, it is worthwhile considering some questions that it provokes, especially in its contrast to Western scientism. It is clear that, in a context of cultural scientism, scientific knowledge dominates religious knowledge. That is why Barbour argues that faith and theology are influenced by what Smedes calls "cultural scientism" as well. Is Smedes's solution, the strict separation of scientific and religious language, not a product of this cultural scientism itself? The model of the students from Abidjan questions the separation of science and faith in its different forms. They perceive scientific knowledge and the knowledge of faith as products of one truth. This raises another question. Does cultural scientism's focus on science as an absolute, or at least a strongly prioritized, form of knowledge not only diminish but also absorb some characteristics of the knowledge of faith? If this is the case, what does this mean for the understanding of science in Western societies? Conversely, if the Western perspective on science cannot easily avoid cultural scientism, what does this mean for its understanding and evaluations of scientific contributions from other cultural contexts like Abidjan? The intersubjective character of the scientific community, which is now spread across different cultural contexts, cannot avoid an intercultural dialogue in which faith and religion will play an important role.

The study of Christian perspectives from different world regions, therefore, makes an important contribution to this theological task. However, the dominance of "the knowledge of faith" in the students' model must not hide the need for a more independent domain for scientific endeavor. According to some of the participants, the strong position of faith does not leave enough space for scientific development. This desire for more independence may well be related to the Western character of science. Despite

the complex cultural context, however, Western approaches and specifically the influence of scientism are not dominant at all in the students' discourse. This seems to suggest that there is a kind of African Christian "resilience" that is able to produce an alternative perspective. Other research, including our reconstructions of other discourses from this region, must clarify whether this alternative perspective is common among Christians from this world region who are involved in science, and, if so, what its (or their) main characteristics are.

#### APPENDIX: PARTICIPANTS OF THE STUDENT GROUP IN ABIDJAN

Some students are indicated by a fictitious "name" that is used in the main text.

Code	Gender	Academic discipline	Denomination
Student 1 = Aicha	F	Communication	Roman Catholic
Student 2	F	History	Pentecostal
Student 3 = Nadège	F	Law	Roman Catholic
Student 4	F	Law	Pentecostal
Student 5 = Emmanuel	M	Philosophy	Protestant—Evangelical
Student 6 = Adama	M	Law	Protestant—Evangelical
Student 7	M	Modern languages	Protestant—Evangelical
Student 8	F	Psychology	Protestant-Evangelical
Student 9	F	English	Protestant-Evangelical
Student 10	M	Broadcasting studies	Pentecostal
Student 11 = Fabrice	M	Sociology	Protestant—Evangelical
Student 12 = Princesse	F	Music	Pentecostal
Student 13 = Josué	M	Music	Pentecostal
Student 14 = Junior	M	Philosophy	Protestant—Evangelical
Student 15 = Aristide	M	Economics	Protestant—Evangelical

*GMB session:* Thirteen participants (students 1–13).

*Focus group session:* Six participants (students 3, 5, 6, 12, 14, and 15).

#### NOTES

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1. Thanks to Brigit Fokkinga and Hendrik Stouten, both professors at the Department of Management Studies.

2. The indications in parentheses refer to the Atlas-ti indications: P followed by a number between 1 and 16 refers to the specific transcription, the next number refers to the specific quote.

3. "la connaissance de la foi pour moi vient d'abord et sous euh connaissance du domaine d'étude vient pour soutenir. Quand on prend par exemple la tolérance que la foi prône par exemple . . . on arrive à éviter certaines situations" (P1, 549).

4. "Je pense qu'elle est un bel exemple du mariage entre foi et (science)" (P7, 114).

5. "car la médecine, c'est la médecine, mais c'est Dieu qui guérit" (P7, 099).

6. "Moi je pense que la foi soutient la science en son développement" (P7, 178).

7. "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)" (P8, 057).

8. "le savoir mystique exotérique est à part, n'a rien à voir avec le savoir la connaissance du domaine d'étude" (P8, 119).
9. See endnote 3.
10. "La vérité pour elle, c'est que euh ce malade là ne souffre pas d'un mal physique, mais d'un mal spirituel" (P7, 101).
11. Although France did not found a university in those countries during colonial rule, only in Dakar (see Tour and Cisse 2008).

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