



Faith in international agricultural development: Conservation Agriculture in sub-Saharan Africa

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Abstract

The role of faith and religion in international development cooperation is hotly debated today. The *legitimacy* of this role remains, however, often confined to instrumental reasons. Yet, thinking about faith and religion only in instrumental terms leaves unquestioned the possibility of a religious background of development cooperation as a practice *itself* and the potential role of faith through individual practitioners that operate within secular NGOs, and research and policy institutes. The aim of the present paper is therefore to consider the structural role of faith and worldview in relation to agricultural development, moving beyond the discourse of instrumentality. We do this by focusing on Giller and Andersson's political agronomy analysis of the promotion of Conservation Agriculture in Zimbabwe by the faith-based organisation 'Foundations for Farming'. We argue that a distinction should be made between religion as a practice of believers and faith functioning as a worldview in *every* practice. In addition, we argue that it is helpful to distinguish between different *kinds* of practices involved in agricultural development in sub-Saharan Africa, namely farming practice, agronomic scientific practice, and faith practice. The value of this philosophical analysis is that it challenges a dichotomous model of 'science-based versus faith-based' approaches to agricultural development. Furthermore, specific kinds of normativity are identified as always already functioning *inside* practices, rather than practices being neutral spaces that are (subjectively) infused with normativity by applying external ethical standards.

Keywords Conservation agriculture · Faith · Worldview · Development · Instrumentalisation · Practice

Abbreviations

AGRITEX	Agricultural Technical and Extension Services (of Zimbabwe)	Contill	Conservation Tillage for Sustainable Crop Production System
CA	Conservation Agriculture	DfID	(United Kingdom) Department for International Development
CCAP	Church of Central Africa Presbyterian	EU	European Union
CF	Conservation Farming	FAO	Food and Agriculture Organization (of the United Nations)
CGIAR	Consultative Group for International Agricultural Research	FBO	Faith-Based Organisation
CIMMYT	International Wheat and Maize Improvement Center	FfF	Foundations for Farming
		FGW	Farming God's Way
		ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
		NGO	Non-Governmental Organisation
		NPA	Normative Practice Approach
		PRP	Protracted Relief Programme (for Zimbabwe)
		SOLDEV	Malawian Synod of Livingstonia Development Department
		SSA	Sub-Saharan Africa

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Introduction

There is a debate in the development studies literature about the role of faith and religion in international development cooperation.¹ This debate ranges from the role of so-called faith-based organisations (FBOs)² within international development cooperation practice (Clarke 2006, 2007; McDuie-Ra and Rees 2010; Tomalin 2012) to diverging epistemologies and worldviews due to different religious or secular starting-points of actors within international development cooperation theory and practice (Ellis and ter Haar 2007; Jones and Petersen 2011; Lunn 2009). In general, since the 1990s it has increasingly been recognized that to understand and facilitate development processes, the religious outlook of intended beneficiaries and the many involved FBOs needs to be taken seriously.

Within the more specific development-oriented agronomy literature, the existence of diverging ‘knowledges’ due to diverging vested interests, values and ideologies and their implications for agronomic research and development is hotly debated today (Andersson and Sumberg 2015; Sumberg et al. 2013; Sumberg and Thompson 2012). Sumberg et al. (2013, p. 79) therefore make a plea for a political agronomy analysis to bring to the fore the “contestation around framing and narratives, agenda setting, partnerships, and the validation and use of the results of agronomic research.” The need for such an analysis results from the changed landscape of international agronomic research and development (Sumberg et al. 2013). Until the mid-late twentieth century most formal research took place within state-funded institutions. This has changed dramatically due to critiques of state-led development as inefficient, environmentally damaging, and undemocratic. As a result, the long-standing congruence of

purpose between government policy and agronomic research objectives has ended. Neoliberalisation—exemplified by the infamous structural adjustment programmes in developing countries—set out to change public-sector agricultural research by improving focus, efficiency, and accountability to both funders and farmers. This both caused public-sector agricultural research to re-frame its role in terms of providing for ‘public goods’ and led to a new emphasis on the formation of public–private partnerships and alliances. On the one hand, this has led to the opening-up of new spaces of contestation around the meaning, purpose and priorities of agronomic research and development, thereby enhancing “flexibility, diversity, adaptation and reflexivity” (Sumberg et al. 2013, p. 76). On the other hand, a tendency arose to close down discussion in favour of particular research agendas and development pathways.

One such case, as Andersson and Giller (2012, p. 22) argue, is the promotion of Conservation Agriculture (CA) by a “conglomerate of faith-based, science-based and policy organisations”. Although its definition is contested, CA can be understood as a “resource saving agricultural crop production concept that strives to achieve acceptable profits together with high and sustained productivity levels while concurrently conserving the environment” (FAO REOSA 2010). Andersson and Giller’s case study focuses on the Zimbabwean FBO ‘Foundations for Farming’ and claims that the policy success of CA was due to the religious sanctioning of CA as “the only way to farm that is faithful to God” (Andersson and Giller 2012, p. 23). In this way, it broke off a trend towards more farmer-oriented, participatory research and development in Zimbabwe and as such closed down the space for contestation. Thus, according to Andersson and Giller, faith functioned as a barrier to meaningful agricultural development in Zimbabwe, namely a barrier to a development where farmers and their needs (co-) determine in a participatory way the agronomic research and development agendas.

In a sense, Andersson and Giller’s analysis can be interpreted as an example of *negative instrumentality*: in pursuing meaningful agricultural development in Zimbabwe—and sub-Saharan Africa (SSA) more generally—faith is seen as an obstacle rather than a helpful factor in pursuing agricultural development. The same negative instrumentality, but in a different form, can often be heard in the public media, for instance in the suspicion that FBOs use development projects as covers for proselytization (e.g. The Guardian 2015).³

³ In another (co-authored) publication Andersson and Giller also hint at this: “Brian Oldreive’s River of Life Church has been at the forefront of its promotion in Zimbabwe. Viewing CA as a way to farm ‘faithfully’, he equated it with ‘Farming God’s Way’ [reference omitted]. Soil cover with mulch is referred to as ‘God’s blanket’. The promotion of CA thus becomes an *evangelising enterprise*” (Baudron et al. 2012, p. 401; emphasis added).

¹ Even though we will elaborate on the concept of faith later—especially in relation to worldview—we would like to provide some provisional clarification here. Religion is a complex phenomenon that we will not try to define here, but in the literature often four different aspects, or manifestations are distinguished (Ter Haar and Ellis 2006): *religious experiences* (e.g. experience of inner peace), *religious ideas* (what people actually believe), *religious practices* (habits and rituals), and *religious organizations* (the organizational shaping and control of the transfer of religious ideas, experiences and practices). In all four of these, faith is active as a *function* (trust, fiduciary function of faith), whereas religious ideas describe the content of what is believed. Worldviews have a bridging function as they provide for a translation of religious ideas into everyday practice, and back again. Acknowledging that not all people see themselves as religious, neither hold an explicitly articulated worldview, we do think it can be maintained that people that are not affiliated to a specific religion, do have faith in the sense of trust which significantly influences their worldview. See Jochemsen (2018) for a more extensive explanation of religion in development.

² With the term FBOs we refer to organisations that explicitly position themselves as such. For convenience sake we also include local churches, mosques, etc.

This contrasts with the predominantly *positive instrumentality* we began with, namely, religious outlooks and FBOs need to be engaged with by academics to be able to understand and facilitate development processes. Yet, thinking about faith and religion only in instrumental terms, either positive or negative, leaves both unquestioned the possibility of the religious background of development cooperation as a practice *itself* and the potential role of faith through individual practitioners that operate within self-professed secular NGOs and research and policy institutes (Jones and Petersen 2011; Salemink 2015).

The aim of the present paper is therefore to consider the structural role of faith and religion in relation to agricultural development (cooperation) that moves beyond the discourse of instrumentality. We will pursue this through a philosophical analysis of especially Andersson and Giller's position in this respect. Even though Andersson and Giller focused on a specific Zimbabwean FBO, their argument has a broader relevance as the particular form of CA promoted by the FBO, which is also called *Farming God's Way* (FGW), is the most explicit, visible and elaborated form of agricultural development cooperation from a Christian perspective. As such, FGW is practiced by a host of other FBOs across diverse contexts. Furthermore, also from the Islamic faith CA is promoted as a proper way of farming, but then for Muslim farmers (Ahmad 2014). This justifies a normative reflection on the general role of faith and religion in agricultural development.

Using the Normative Practice Approach (NPA), we will argue that a distinction should be made between religion as an normative practice of believers (religious practices and religious organisations)—that is empirically recognisable and practiced in, for instance, churches, mosques, shrines, temples and 'holy places'—and faith functioning as a worldview in *every* normative practice. In addition, we argue that it is helpful to distinguish between different kinds of normative practices involved in agricultural development in SSA. The value of this philosophical analysis is that a dichotomous model of 'science-based versus faith-based' approaches to agricultural development is challenged and a level-playing field is introduced between different worldviews from which science can be practiced (which is at least a matter of epistemic justice). Furthermore, specific *kinds* of normativity are identified as always already functioning *inside* practices, rather than practices being neutral spaces that are (subjectively) infused with normativity by applying external ethical standards. Altogether, the analysis will open the eyes for the responsibility of scientists in the daily work they perform, but also the contribution they make to agricultural development at a societal level.

Background of Conservation Agriculture and Foundations for Farming

As Andersson and Giller (2012) aptly write, CA has captured the imagination of an impressive array of organisations, including donors like the United Kingdom Department for International Development (DfID) and the European Union (EU), international research and development institutes like the International Wheat and Maize Improvement Center (CIMMYT) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), policy institutes like the Food and Agriculture Organization of the United Nations (FAO), and numerous non-governmental organisations (NGOs). Binding those different actors together is the promotion of CA "as a potential solution to the production problems faced by smallholder farming families in sub-Saharan Africa" (Twomlow et al. 2008, p. 2). CA is a package of land, water, and crop management techniques to improve farm productivity, profitability, and sustainability. Central principles are: (1) disturb the soil as little as possible; (2) implement operations, especially planting and weeding, in a timely manner; (3) keep the soil covered with organic materials (crop residues or cover crops) as much as possible; and (4) mix and rotate crops, i.e., practice intercropping and crop rotation (Twomlow et al. 2008).⁴

The roots of this alliance around CA can be traced to the year 2004 when the Protracted Relief Programme for Zimbabwe (PRP) was formed, funded (initially only) by DfID. The involved FBO FfF had already extensive experience with extension of CA to smallholder farmers, as it had initiated and unrolled in the 1990s its Hinton Estates Out-Reach Program, followed in 2000 by Operation Joseph which ended in 2008. FfF, formerly named 'Farming God's Way', is a subsidiary of the River of Life Church in Harare, Zimbabwe, and was founded by Brian Oldreive, a large-scale commercial farmer in Zimbabwe. In the 1980s, Oldreive was a manager of a large-scale farm that faced problems of soil erosion, declining yields, and high operation costs. As a practising Christian, Oldreive observed during one of his prayer moments in the bush, that "there is no mechanism in nature in which the soil is inverted and there is a thick blanket of fallen leaves and grass which covers the

⁴ Actually, there is much disagreement about the definition of CA and which principles are involved. In the agronomic scientific literature only three of the four principles mentioned return: minimum tillage, soil surface cover and diversified crop rotations (FAO REOSA 2010; Sommer et al. 2014; Vanlauwe et al. 2014). The principle of good management in relation to planting and weeding is absent, although some argue that appropriate use of fertilizer should be included as a fourth principle (Sommer et al. 2014). In addition to the four mentioned principles, the Zimbabwean Conservation Agriculture Task Force also mentions the principles of "not burning crop residues" and "efficient use of inputs" (ZCATF 2008, p. 3).

surface of the soil [which] prevented the soil from being washed away” (Oldreive 2009, 7, cited in Andersson and Giller 2012, p. 30). This inspired him to develop a minimum-tillage technology to tackle the problems he faced on the farm. This minimum-tillage approach became known as Conservation Farming (CF) and is characterised by planting basins or shallow planting furrows in combination with mulch, seeds, fertilizer and a cereal-legume rotation. CF can be considered as a particular approach within the broader CA as it involves minimum tillage, soil surface cover and diversified crop rotations, but also requires planting basins or shallow planting furrows. The term Farming God’s Way (FGW), once the name of the FBO, is still sometimes used to connote the ‘holistic’ approach that is promoted by FfF. As such, it is broader than CF as it “is not just a technology but a well balanced [*sic*] biblical, management and technological solution for the agricultural domain, to equip the poor to come out of poverty, with what God has put in their hands and to reveal the fullness of His promised abundant life” (Dryden 2009, p. 7).

The promotion of CF by FfF happens through training of (NGO) extension staff, demonstration plots, monitoring and evaluation, and research undertaken by institutes belonging to the Consultative Group for International Agricultural Research (CGIAR) (Andersson and Giller 2012, p. 33). Activities have also spread to other African countries. For instance, FfF has trained project staff of the Malawian Synod of Livingstonia Development Department (SOLDEV), an organization of the Church of Central Africa Presbyterian (CCAP) (Boone-van der Poel 2016). International ties are also visible at funding level: FfF is or has been supported by the international FBOs Tear Netherlands (Heynis 2014) and TEAR Australia (Stathis 2014).⁵ In addition, in 2015 Foundations for Farming Nederland has been established that supports development projects worldwide that practice FGW.

Agricultural curses and blessings

Even though the name change from Farming God’s Way to Foundations for Farming mitigated political sensitivity, in the actual agricultural approach the reference to God remains important (e.g. Dryden 2009). What has brought FfF to emphasise so strongly the religious component in their agricultural approach? In a sense, this is the same phenomenon that fascinated Max Weber in his study of the protestant ethic: the relationship—or absence of it—between spiritual salvation and earthly blessings. As Dryden (2009,

p. 1) writes in the Farming God’s Way Trainer’s Reference Guide: “The question is, if so much of Africa has come to [spiritual] salvation, why do we still see so much of the curse [namely, poverty and undernourishment] rather than the promise of His blessing?” The answer that is given is threefold: there are technical, managerial and spiritual reasons. First, unlike what happens in ‘nature’, farmers practice ploughing and burning and/or removal of mulch from the field on a large scale. Next to that, management is often failing with respect to planting on time, maintaining high standards, and avoiding waste in the agricultural practice. However, spiritual reasons for the “yoke of poverty” are most fundamental (Dryden 2009, p. 27). In this regard, FGW points to practices of witchcraft and ancestral worship. In much of SSA, witchdoctors are asked to pray over the land in order that it will produce a bumper harvest (Dryden 2009, p. 30). Yet,

[t]he Bible clearly states that consulting witchdoctors and ancestral worship is witchcraft and demon worship. ... The curse on those that practise these things is severe indeed; undernourishment, hunger, living in distress and darkness, depression and fear. If we see these things in evidence in communities, we have to understand that this is foremostly because God has removed His hand of blessing and the curse which comes from satan’s [*sic*] rule has been instituted” (Dryden 2009, p. 30).

In this light, it is understandable that FfF says that only tackling the technical and management issues will not be enough to tackle the ‘yoke of poverty’. At bottom, personal *conversion* is needed.

If farmers do convert to ‘farming in God’s way’, it is believed that the result will be relief from the ‘yoke of poverty’ and undernourishment, *i.e.*, real spiritual salvation will then be accompanied by earthly blessings. The basis for this belief is God’s own promise in the Bible that those who turn to Him will have “abundant life” (cf. Bornstein 2003, p. 50; Dryden 2009, p. 1). The way it will come about is immanent, but at times God may “supernaturally [turn] to them and [bless] them far more abundantly than the science of the benefits allow [*sic*] for” (Dryden 2009, p. 56). How it may come about *immanently* is precisely what Andersson and Giller focus on.

Andersson and Giller on heretics and God’s blanket salesmen

In *On heretics and God’s blanket salesmen*, Andersson and Giller (2012, p. 22) investigate the development of the CA conglomerate of “faith-based, science-based and policy organisations as a distinct epistemic community.” They

⁵ The Malawian organisation SOLDEV is supported by Tear Fund UK (Boone- van der Poel 2016).

understand an epistemic community as “a network of professionals with recognised expertise in a particular domain, who help decision-makers to define problems, identify policy solutions and assess policy outcomes” (Andersson and Giller 2012, p. 22). More in particular, they are interested in how this epistemic community around CA *excludes* or *silences* alternative policy options and expertise, and as such closes down spaces for contestation (see above). To this end they undertake two lines of inquiry. The first is an analysis into the economic and political conditions that made this emergence of CA policy a success. The second is an agronomic analysis of the suitability of CA in the circumstances of smallholder farmers in SSA. Together, these lines of inquiry put forward that CA has become a policy success *because* it was sanctioned by religion and *despite* earlier agronomic research indicating other options and contestation over the suitability of particular CA techniques under particular circumstances. We will further unpack the first line of inquiry, because that line of inquiry is most relevant for our purposes.

Andersson and Giller start out by describing the history of scientific research on conservation tillage in what is now Zimbabwe. While after 1965 agronomic research had benefited mostly the large-scale farming sector, since Zimbabwe’s independence in 1980, research was reoriented towards the smallholder sector. However, with the intensification of the development and promotion of conservation tillage for the smallholder sector in the 1990s, research shifted from formal trials on research stations to on-farm experimentation with farmers, e.g. in the Conservation Tillage for Sustainable Crop Production System (Contill) project. This shift was motivated not only by the desire to adjust farming methods to the socio-economic circumstances of farmers in agro-ecologically marginal areas, but also to ‘empower’ farmers. According to Andersson and Giller, the overall conclusion of those decades of research on conservation tillage is that “given the diversity in agro-ecological and socio-economic conditions, ‘different techniques and systems should be promoted as options’ ... as ‘it is impossible to develop blanket recommendations’” (Andersson and Giller 2012, p. 29).

The successful spreading of what they call a ‘faith-based approach to agriculture’, at the expense of ‘adaptive scientific research’, Andersson and Giller try to explain through Zimbabwe’s political and economic conditions at that time. In their words: “[t]he apparent epistemological contradiction between scientific experimentation and Oldreive’s faith-based approach to CA can only be understood through an appreciation of Zimbabwe’s political and economic crisis and the politics of humanitarian relief and development aid” (Andersson and Giller 2012, p. 32). What was the case in Zimbabwe at the time? Due to a violent land redistribution the Zimbabwean government had isolated itself

internationally, while at the same time the economic situation of the country was in decline. In response to this and the droughts of 2001/02 and 2002/03, food aid and seeds for planting were provided by donors via NGOs. At first, these initial responses lacked coordination, but soon staff from donors, NGOs, government and international agricultural research institutes began to cooperate. DfID was willing to finance relief and development efforts, while international research institutes and NGOs like FfF could provide for the knowledge and extension services. Thus, an organisation like DfID was critical in the formation of an epistemic community around CA because it provided for the financial resources in the “production of policy success” (Andersson and Giller 2012, p. 34). In addition, according to Andersson and Giller, the engagement of international agricultural research institutes gave the large-scale promotion of Oldreive’s faith-based approach to CA under the PRP unintendedly a scientific legitimisation. The upshot was that negotiations between those donor, policy, research and faith-based organisations resulted in a “standardized package” that was, however, not “evidence-based” (Andersson and Giller 2012, p. 33).

In addition, according to Andersson and Giller (2012, p. 37), religion legitimized CA policy by providing a language to portray farmers who did not adopt CA or stepped out of the program as ‘non-believers’ who were stuck in the ‘mindset of the plough’ and in need of ‘conversion’. Also, practicing CA was framed by its proponents as the only way to farm that is faithful to God. In this way, critical questions concerning the value and suitability of CA—or particular technologies within it—for African smallholders could not be raised, for it were the *farmers* that needed to convert to what the CA proponents already knew was good for them.

Thus, Andersson and Giller conclude, “CA became a policy success sanctioned by religion, despite earlier agronomic research suggesting the value of other options, evidence of dis-adoption, and contestation over the suitability of particular CA technologies” (Andersson and Giller 2012, p. 23, cf. 41).

Justifying agricultural knowledge, technology, and extension

In this section we want to problematize Andersson and Giller’s conclusion that CA became a policy success because it was sanctioned by religion. Specifically, this conclusion is puzzling in the light of their own analysis where they put much emphasis on the political and economic conditions of Zimbabwe and subsequent development and relief efforts that enabled FfF to obtain both money and scientific legitimisation. Following this analysis, it seems that precisely those unique political and economic conditions explain how

it could be that FGW became scaled up to CA/CF within a broad epistemic community. And yet, what Andersson and Giller conclude is that *religion* explains the success of CA through its sanctioning effect.

This is a conclusion that itself begs for an explanation. Of course, it could be that the political and economic conditions of Zimbabwe *together with* the sanctioning of CA/CF as ‘the only way to farm that is faithful to God’ enabled the policy success of CA.⁶ That does, however, not explain why only the latter part ends up in Andersson and Giller’s conclusion.

A better understanding of what is going on here might be achieved through considering a particular remark made by Andersson and Giller in more detail. Andersson and Giller state that “[t]he *apparent epistemological contradiction* between scientific experimentation and Oldreive’s faith-based approach to CA can only be understood through an appreciation of Zimbabwe’s political and economic crisis and the politics of humanitarian relief and development aid” (Andersson and Giller 2012, p. 32; emphasis added). On the one hand, we see here the move to an analysis of the Zimbabwean economic and political situation; yet, on the other hand, this move is thought to be necessitated by the *apparent epistemological contradiction between a science- versus a faith-based approach to agricultural development*. But that means that the problematisation of the policy success of CA—‘what made it possible?’—becomes intermingled with a problematisation of Oldreive’s faith-based approach—‘how is it possible that it gained momentum considering the agronomic scientific evidence available at the time?’.

In our interpretation, this problem in argumentation structure points to a deeper problem that Andersson and Giller have with CA/CF/FGW, namely an *epistemological* problem. It concerns, first, the question how agronomic knowledge is to be justified generally. Second, it has an explicit normative dimension when it comes to extension to farmers. Thus, Andersson and Giller complain that when CA principles come to be seen as universal prerequisites for sustainable agriculture—‘the only way that is faithful to God’—the socio-economic and agro-ecological circumstances of the farmers stop to be structuring forces of agricultural practice. Hence, their rejection of (God’s) blanket recommendations. In another publication they speak of the need for a radical shift away from “dogma and prescriptive approaches ... such as CA” (Giller et al. 2015, pp. 1, 10) and “CA principles

[that] also confer a value statement—norms that must be adhered to” (Giller et al. 2015, p. 9).

The normativity that they perceive in CA, Andersson and Giller connect with the religious ‘source’ of CA: FfF and its Christian inspiration. Interestingly, Andersson and Giller (2012) do not mention that in the earlier research on conservation agriculture in Zimbabwe that they cite—the Contill project—researchers *also* battled against ‘blanket recommendations’. Blanket recommendations not from the side of FfF or any other FBO, but from the side of AGRI-TEX, the Zimbabwean governmental agricultural extension service. Thus, researchers within the Contill project wrote: “[F]armers are being taught normative, rigid blanket recommendations in a top-down manner which hardly encourages dialogical, interactive learning, adapting of technologies and developing their own solutions” (Hagmann et al. 1996, p. 16). The researchers rather favoured “participatory research & innovation, development and extension” (Hagmann et al. 1996, p. 18), where learning is based on experience from the lifeworld of the actors. Extension then consists in dialogue via problem-posing, helping people to find causes and solutions themselves for the problems they face, rather than “teaching of ‘foreign’ knowledge and realities” (Hagmann et al. 1996, p. 17).

This shows that the problem of justifying normativity in agricultural extension is older than appears from Andersson and Giller’s analysis. Also, considering that it is unlikely that explicit religious reasons provided a rationale for AGRITEX officials to justify their ‘normative’ agricultural extension practice, we see that normativity cannot be limited to its alleged origin in explicitly religiously founded ideas like those of FfF, but can have a diversity of sources.

A modern problem

We have seen that for Andersson and Giller genuine agronomic knowledge and techniques is ‘science-based’. As Andersson and Giller constantly refer to ‘experimentation’ with particular agronomic techniques to see if and why they would work, we may safely assume it is the *experimental*, presumably *objective*, method of agricultural science that should provide for the justification of agronomic knowledge and techniques. Admittedly, the objectivity of the experimental method—“[o]bjective measurement” (Giller et al. 2015, p. 2)—functions as a normative ideal for them—but can they acknowledge that?—as they do realise that “agronomy is deeply embedded in political and power relations” (Andersson et al. 2014, p. 21) and consequently objective science as an accomplished fact can probably never be reached.

On the other hand, we have seen that when it comes to the proper role of agronomic science in relation to farmers

⁶ As Andersson and Giller focus in their paper for the most part on Zimbabwe’s economic and political situation to explain the policy success of CA, the empirical evidence they provide with respect to their claim that CA proponents indeed consistently sanction CA by reference to God is scanty. At least in policy circles, it is not very likely that just referring to God’s will in promoting an agricultural approach is sufficient.

and farming practices, prescriptive approaches are to be prevented, according to Andersson and Giller. What is needed is “a radical shift away from adapting principles or technologies to local circumstances, toward localized agronomic knowledge production”.⁷ (Giller et al. 2015, p. 9) The role of agronomic science is then to provide a ‘basket of options’ (Giller et al. 2015), echoing a notion dating back to the Contill project (cf. Hagmann et al. 1997) and even further back to Chambers and colleagues (1989, pp. 182–183) who spoke about a “basket of choices”. This ‘basket of options’ is understood as “explor[ing] systematically the needs and opportunities of the diversity of farmers in any given region”⁸ (Giller et al. 2015, p. 9).

Given that Andersson and Giller criticise CA for being value-laden and normative, and arguing for a ‘radical shift’ away from such an approach, the implicit suggestion seems to be that their ‘basket of options’ is neutral with respect to values and norms. However, this does not fully accord with what they write in another (extensively co-authored) publication; there they do acknowledge that they have a “‘partisan’ role ... primarily in the research questions we select. Much attention is given, therefore, to identifying researchable questions that are especially relevant to weaker groups” (Giller et al. 2008, n.p.). The latter does challenge any neutrality of the ‘basket of options’. At the same time, however, there remains a hint of what Richard Bawden (2012), following Lawrence Busch, calls an ‘abdication of moral responsibilities’, because privileging the questions and interests of ‘weaker groups’ does not necessarily mean to contribute as scientists to a sustainable and just agricultural practice and development.

FfF, in contrast, is very explicit about normativity and connects it with God’s will—God’s way. Indeed, important for farmers is to submit to God’s will: “why do we ‘lean on our own understanding’ and not trust in the way He has shown us how to farm? Do we presume to be better at farming than God? Or is it our pride to do it our way? Or is it that we still trust our earthly father’s way?” (Dryden 2009, p. 9).

According to FfF, the way God has agriculture meant to be, can be observed from ‘nature’, as we noted in the

paragraph “Agricultural curses and blessings”.⁹ This provides for the technical norms of no ploughing and no burning or removal of mulch from the field. Important is imitation: “[w]e need to follow what we see Him do in creation as closely as we can, to simulate His laws in an agricultural environment where there are high demands and pressures” (Dryden 2009, p. 33).

Yet, those technical norms, together with managerial norms, remain *proximate* norms to achieve food security and prosperity.¹⁰ *Ultimately*, the spiritual norm of turning from the Kingdom of Satan to the Kingdom of God—by abandoning witchcraft and ancestral worship—is considered most important to tackle the ‘yoke’ of food insecurity and poverty. This is, for instance, illustrated by Dryden’s deploring of the partial adoption of FGW by the Zambian agricultural extension department. As he notes, the Zambians “changed important fundamentals of the technology” and did not incorporate “the holistic teaching of Farming God’s Way and only the technology was rolled out which was a great tragedy considering the potential for Farming God’s Way to extend God’s Kingdom” (Dryden 2009, p. 14).

Thus, we can conclude that the fundamental difference between Andersson and Giller and FfF is located in the *source and knowability of normativity*. In the broader Western philosophical history this source and knowability of normativity has increasingly become a problem.¹¹ Since the Enlightenment, the human self-understanding is characterised by both rationality and freedom. For Enlightenment thinkers, freedom means that the source of values and norms, the meaning of human being, is placed in the human subject itself. Freedom is autonomy. On the other hand, rationality is the instrument for controlling reality and realising this human freedom. At the same time, this rationality is goal in itself as ideal of absolute and sure knowledge. The latter represents an inheritance from Greek philosophy, for it was there that human reason came to be seen as having access to true and sure knowledge. In this way, acquiring knowledge through reason equalled liberation from mere opinion.

Standing at the beginning of the Enlightenment period, Descartes still thought that God’s existence was as sure as his own subjective (thinking) existence. However, over the centuries this idea gradually lost its appeal: God’s existence became a question. Thus, although with the Greeks a rational order was conceived to be outside, given to human

⁷ Andersson and Giller are not fully consistent themselves, as they write that “[a]gronomy, and the identification and validation of new technologies or practices, thus becomes a ‘place-based’ science in which general production ecology principles (theory) and agricultural development aspirations (direction) are applied in specific local contexts and systems” (Giller et al. 2015, p. 10). So, also with them, principles play a role.

⁸ Interestingly, in this 2015 paper, Giller and Andersson and others do not speak of ‘participation’, but stick to ‘farmer needs’. This is a move away from the more Habermasian dialogue-approach articulated by Hagmann, Chuma, and Murwira (1996).

⁹ This argument from nature shows interesting parallels with the currently popular concept of *biomimicry*. See e.g. Blok and Gremmen (2016). Note, however, that it always concerns an *interpretation* of what is normative in nature.

¹⁰ It is less clear where managerial norms are derived from by FfF.

¹¹ We rely here on Geertsema’s (1992) narrative of modernity, but this narrative is broadly shared (cf. Taylor 1989).

beings, possibly by a divine world, in modern times the foundation of the rational order is more and more located within the human subject. It is the human subject which has to give meaning to a reality that is in itself meaningless. This has become known as the Cartesian subject-object scheme.

If we look at agriculture, we can note that the dominant, industrial way of farming, that has been shaped, among others by the Cartesian subject-object scheme (Rademaker and Van den Hee 2018), has run into all kinds of different problems, which are well-known today. In this vein, the question as to the *meaning* of agricultural development beyond individual preference or profit has imposed itself. Also, as Geertsema (1993, 2000, 2011) has argued, the Cartesian subject-object scheme cannot account for our experience as finite and responsible beings, due to the emphasis on absolute and sure knowledge. Carefully we would like to suggest that the latter finds its equivalent in agricultural research when moral responsibilities are abdicated.

As we argued, the latter problem can be identified in Andersson and Giller's work. Their dismissal of CA, as promoted by FfF, in the name of neutrality is too stringent, because it ignores that we, as scientists, are always already co-responsible for the agricultural development we contribute to. For one thing, also something like 'participation' is not necessarily an accomplished fact, but requires intensive effort (speaking to the scientist's responsibility). However, maybe more important is that the designed techniques and crops ('the basket of options') will reflect the *direction* that has been chosen in the design process (Verkerk et al. 2015).¹² Even when there are several 'options' in the 'basket', there will always be other options that are excluded. In our scientific practice we cannot avoid to contribute to a *particular* agricultural development. That is, 'the basket' will never be *just* 'science-based'.

Even though we have been most critical of Andersson and Giller's position, this does neither mean that FfF's agricultural approach is unproblematic, nor that the agricultural approaches of FBOs in general are necessarily unproblematic. We agree with Andersson and Giller that a hierarchical, prescriptive approach is to be eschewed. Yet, according to us, the problem is *not* that in a way normativity is seen as *inherent* to reality. In the next section we therefore want to give more philosophical flesh to this intuition.

An alternative approach

We start with the observation that we, as human beings, in our everyday dealings always already encounter a world full of qualitatively different relationships. Somewhat depending on our situation, we relate to parents, husbands, wives, children, friends, peers, employers, clients, patients, but also pets, bugs, trees, highways, chairs, etc. We do not treat them all alike: for instance, with my long-time friend I maintain a relationship of friendship that I do not entertain with my office chair. Thus, human being is primarily *relational* being, where relations have different *qualities*; we find ourselves in all different kinds of relationships to other entities that also influences how we behave towards them.

This has also implications for epistemology. To give some examples, we know what *care* is because we are already in care-relationships to fellow human beings, and not primarily because at a certain point we start to scientifically reflect on what care is. We know what *life* is because we are related to all different kinds of living beings: plants, animals and human beings. Scientific thought can sharpen and deepen this knowledge of things, but only at the price of being restricted: it abstracts from concrete reality as experienced and understood in everyday life (Dooyeweerd 1969a, b). This means that science and scientific theories, being abstract, cannot provide for a comprehensive view of reality, *i.e.*, they cannot provide for a *worldview*. It is in everyday existence or "naïve pre-theoretical experience" (Dooyeweerd 1969a, p. 3) that we experience coherence and unity in the diversity of reality. That is, there is not an original gulf between the thinking subject and the objective world around him or her that is to be bridged by knowledge; rather, the relationships we are already in—and which we encounter in everyday reality—provide the possibility for acquiring knowledge.

Now, to return to the different kinds of relationships to other entities we mentioned, this qualitative nature of reality implies *normativity*. This is best illustrated with an example offered by Geertsema (2008):

Someone who enters a room where a court session is being held will not understand what is happening if he has no notion of what jurisdiction involves. The qualitatively distinctive nature of justice versus beauty, but also versus political power and economic benefit must be appreciated if someone is to understand what the judge is doing. The interest of justice may be at odds with the political advantage or economic benefit of those involved. The judge may include these aspects of the case in his considerations, but as such they should not be the deciding factor. The judgement must meet the criteria of the law, even if this involves political or economic disadvantage for parties. The quality of the

¹² This often comes to the fore when agronomists describe the functions of artefacts and techniques. Thus, for instance, Woomer, Huisling, and Giller (2014) speak of 'good yields', 'good price', 'good inoculants', 'good Lead Farmers', 'seed of good quality', etc.

law depends on the application of the law in a normative sense.

For jurisdiction to be jurisdiction the actors like the judge, the prosecutor and the lawyer have to follow certain rules that are characteristic, even defining, for that practice; i.e., the practice has a normative character. A judge advantaging economic interests above the juridical norm of justice violates the structure of that practice. If this would be consistently done, the juridical practice would lose any meaning as juridical practice. This means that juridical norms make the juridical practice possible.

Yet, we claim, norms do not only make possible the juridical practice, but they do so for all human practices. In the Normative Practice Approach—that we would like to link up with—this has been further developed.¹³ In the NPA, a normative practice—henceforth ‘practice’ for short—is understood as a social structure that embodies a coherent form of socially established, cooperative human activity (Hoogland and Jochemsen 2000; Jochemsen 2006). As such, practices have developed historically and embody normative choices that have been made by practitioners over the course of the practices’ history. This can be further elucidated by distinguishing between the *constitutive*, *regulative*, and *contextual* side to practices. First, the constitutive side refers to the norms and values that really constitute practices: they are always already presupposed in practices. In the courtroom example, for instance, this centred around impartiality and doing justice. This is to say that established practices have an inherent purpose, end, or value. Also, norms pervade a practice that enable the realization of the inherent end of the practice and provide boundary conditions to it. Thus, normativity is always already part of practices. This normativity we can find first of all in the implicit knowledge of rules that allow the competent performance of the practice. We can refer to the knowledge of those implicit rules as know-how or tacit knowledge. However, this tacit knowledge can to a certain extent also be formalized in explicit rules, such as in teaching materials and codes of conduct.

Especially important on the constitutive side are *qualifying* norms (Hoogland and Jochemsen 2000; Jochemsen 2006). Qualifying norms refer to the inherent end of a practice, that what it is all about. In the case of farming, for instance, this is about the production of food and fibre for human consumption.

Second, the contextual side of practices refers to the environment—including both the natural and societal environment—of practices that influences the roles and responsibilities of practitioners (Glas 2017). Important here is the

organisational environment; practices can be and often are embedded in organisations, the most familiar of which are public, for-profit, and non-profit or non-governmental organisations.

Third, the directional or regulative side rather refers to the overall orientation of practices at a certain point in time: some aspects are disclosed, others are not (Glas 2009a). For instance, a just jurisdiction (disclosing the juridical aspect) that is so expensive so as to completely drain governmental resources violates an economic norm (not disclosing the economic aspect). This normative ‘directedness’ of practices reflects the normative choices made by practitioners in the course of the practices’ histories under influence of different—and often unarticulated—ethoi and worldviews (Jochemsen 2006, p. 106). For instance, a farmer in his or her everyday practice faces the choice “*how to play her or his role, cheerfully or sullenly, carelessly or conscientiously, efficiently or inefficiently*” (MacIntyre 1999, p. 326). This appeals to the *ethos* of the practitioner. However, as MacIntyre further notes, “the way in which the role is enacted presupposes not only an answer to a question posed to and by the role-player: ‘How is it best for me to play this role?’, but also to such further questions: ‘By what standards am I to judge what is best?’ and ‘Should I continue to play this role in this way?’” (MacIntyre 1999, p. 326). Those questions are pre-eminently of a worldview character as it asks for a stance concerning my place, as a human being, in the world. In the world—and not merely in this practice, as those questions impose themselves across the diversity of practices and roles played.

At this point we note that it is through worldviews that faith and religion play an important role in practices. Even though worldviews arise from the life-worlds of people, and hence have a contextual component, worldviews always also claim both our *assent* and *ultimacy* (Griffioen 2012), i.e., they express our deepest convictions and commitments with respect to our place, as human beings, in the world. Another way of saying this is that every human being is religious and has faith, in the sense that in our daily lives we all trust in and commit ourselves to something we consider Ultimate (Geertsema 1993, 2000; Olthuis 1989), which influences how we interpret and perform practices. Without this orientation provided by worldviews we would not know how to live our lives and perform our practices.

Faith and religion in agricultural development

In our view, the NPA is highly relevant in the debate around ‘science-based versus faith-based’ approaches in agricultural development, in particular because it problematizes the dichotomy of science versus faith. Furthermore, it provides

¹³ The NPA is based on work of MacIntyre (1985) and Dooyeweerd (1969a, 1969b, 1969c).

a way to account for normativity, which, as we noticed in the section “[A modern problem](#)”, is hard on the modern, Cartesian understanding.

We cannot at this point recapitulate all the literature that has been produced concerning the relationship between science and faith/religion.¹⁴ What we rather want to do here is to use the NPA to sketch an alternative to the conflictual model implied by the ‘science-based versus faith-based’ position in agricultural development.

According to us, it is important to distinguish between (at least) three different normative practices in the case of agricultural development in SSA: the *farming practice* as practiced by farmers and fieldworkers, the *agronomic scientific practice* as practiced by scientists, and the *faith practice* as practiced by believers (be they Christian, Muslim or animist).¹⁵ Whereas the farming practice is structurally characterized by the production of food and fibre crops for consumption, the agronomic scientific practice is structurally characterized by theory-formulation of production-ecological phenomena, possibly with a view to practical application in the farming practice.¹⁶ On the other hand, the faith practice is structurally characterized by trust and commitment, and because of that worship, of what is considered Ultimate—in the monotheistic religions God or Allah. Hence, in terms of the NPA, we could say that the farming practice is qualified by the *economic* aspect (cf. Jochemsen 2012), the agronomic scientific practice is qualified by the *analytical* aspect, and the faith practice by the *faith* aspect we can distinguish to reality.¹⁷ Those aspects and those

practices are irreducible to each other, i.e., they differ qualitatively from each other.

The aspects that qualify the different practices are *normative* aspects. A central normative principle for the farming practice is to achieve a positive balance of benefits, viz., a valuable farm product or service for society, over costs (Rademaker et al. 2017). In contrast, in the agronomic scientific practice a central normative principle is to distinguish well between concepts so as to prevent contradiction and confusion. And, finally, in the faith practice a central normative principle is to trust in, commit oneself to, and worship what is considered Ultimate. As mentioned already in the context of the example of the juridical practice, this normativity is always already presupposed; without it the practice would be meaningless, and, stronger, would not exist as that practice.

In the section “[A modern problem](#)” we noticed that the Cartesian way of thinking has problems to account for normativity. On the one hand human freedom is taken to be incompatible with normativity, but on the other hand it is expected of science to show how we ought to live and perform our practices (‘science-based’). The NPA makes clear that normativity is *constitutive* for practices, including the (agronomic) scientific practice (cf. Alrøe and Kristensen 2002). Norms related to doing good science—such as scrupulousness and reliability in The Netherlands Code of Conduct for Scientific Practice (VSNU 2012)—need to be lived up to count for science *as science*.¹⁸ This becomes especially clear in the light of sociological and anthropological analyses that have shown that scientific practice is frequently bound up with external interests and power structures. Clearly, also Andersson and Giller do not want to yield to a view that science is just expression of interests and power (Andersson et al. 2014). Yet, to maintain that, it would require an acknowledgement that normativity is *inherent* to the agronomic scientific practice. Science cannot *itself* account for the normativity that nonetheless is presupposed in the scientific practice.¹⁹ To account for this normativity we have to take recourse to worldviews (and philosophy), which, as we have shown, are intimately linked to faith as content (the regulative side of practices). In this

¹⁴ A classical work is that of Ian Barbour (1990).

¹⁵ Our approach is in line with Briggs who proposes to reconceptualise ‘indigenous knowledge’ in terms of ‘practice’, meaning “grounded and rooted in a particular context and [being] a clearly integral part of the everyday practice of production.” (Briggs 2013, p. 238) This shift also does justice to Agrawal’s argument that common elements can be found in both Western and indigenous knowledge, such as agroforestry (‘Western’) and “the multiple tree cropping systems of smallholders in many parts of the world” (‘indigenous’), thus undermining the idea of a strong difference between Western and indigenous knowledge (Agrawal 1995, p. 421). Or, in Scott’s words, we are talking here about a know-how that is “implicit in the most modern of activities” (Scott 1998, pp. 313, 424n8).

¹⁶ Using this knowledge in the practical reality of farming is quite a different thing than just applying this knowledge (Gremmen 1993), as many a graduated farmer’s son or daughter will experience when trying to apply scientific knowledge in actual agricultural practice. As Glas (2009b) notes, the just graduated knows the principles and concepts, but does not know whether what he or she observes in the actual farming practice fits the concepts. He or she is uncertain about the relative weight of a particular explanation in light of the bigger whole. In this context, knowing how to act needs to be learned. This is often referred to as ‘knowing how’, as distinct from ‘knowing that’ (e.g. Leeuwis and Van den Ban 2004), and constitutes a tradition of how one ought to farm.

¹⁷ Philosopher Herman Dooyeweerd (1969b) has argued that some fifteen ‘modal aspects’, or ways of functioning, can be distinguished

Footnote 17 (continued)

to entities. Those include the analytical, economic and faith aspects, and the formative aspect that we will introduce later. These aspects relate to the diversity in reality we referred to earlier. For a practical application of this theory on (scaling in) agricultural development: Wigboldus et al. (2016).

¹⁸ Hence, Giller et al.’s (2008) remark that the scientific “‘partisan’ role ... lies primarily in the research questions we select” is too limited. It also extends to the research process itself.

¹⁹ And, we should note, it is precisely this normativity that *enables* scientific freedom.

sense, Andersson and Giller are right to link up normativity with faith, but are not right to limit this to explicitly faith-based approaches like FfF's. Faith commitments are operative in agronomic science as well, as they should.

In saying that agronomic science structurally presupposes an intimate relationship to normativity, we have not as yet said something explicit about the way different practices are (and ought to be) relating to each other. Yet, the NPA can provide guidance here as well. As noted, the three practices of farming, agronomic science, and faith are qualitatively different. They aim at different things. This has consequences for the way the agronomic science and faith practice ought to relate to the farming practice. To enable the flourishing and unfolding of the agricultural practice, as one manifestation of the rich *diversity* of reality, it should be kept in mind that it is primarily an economic practice, rather than an analytical or faith practice. For instance, overly stressing the scientific performance of the farming practice effectively denies farming practice its existence as farming practice, *i.e.*, it neglects that farming is qualified as an economic rather than analytical practice. If this is not observed, the danger is that the farming practice becomes instrumentalised by the other practices. In the past, for instance, Christian churches and missionaries have been accused of proselytization where provision of material rewards was conditional upon becoming a Christian. Something analogous is pertinent to FBOs like FfF, but also present for agronomic scientists if the focus is only on 'scientificness' and effectiveness (Hardeman and Jochemsen 2012).

The background of the problem of instrumentalisation originates in practitioners' total identification of the diversity of practices we encounter in everyday life with the qualification of one type of practice. It seems this is the problem that Andersson and Giller associate with FfF: adopting a particular farming approach—CF/FGW—is framed primarily in terms of an act of faith. As such, the own nature of the farming practice threatens to become stifled. However, a discussion on what good farming means can never side-step the inherent end of agriculture. Indeed, in line with what we have argued, the aspect of faith does not qualify the farming practice, even though it is not absent from it. The farming practice is not the same thing as a church worship service. They have a different normative structure. For FfF—and FBOs in general—this means that in the discussion about the appropriateness of particular proposed agricultural (sub-) practices and techniques, arguments will have to relate to the production of food for consumption and ways to improve this, quantitatively *and* qualitatively. The faith understanding may then come to the fore especially in the way broader normativity is taken into account, besides the central values of

effectiveness and efficiency in industrial agriculture (Glenna 2002; Hardeman and Jochemsen 2012; Thompson 2010).²⁰

Conclusion

Gray (2004, p. 23) writes in *Heresies* that “[b]elievers in progress are seeking from technology what they once looked for in political ideologies, and before that in religion: salvation from themselves.” In line with this, several scholars have argued that mainstream international development cooperation, with its belief in progress and improvement, can be seen as a *religious* endeavour (Plant 2009; Rist 2014; Salemlink 2015).

By now it must be clear that what is needed to evaluate the claim that international (agricultural) development cooperation is a religious practice, is a philosophical analysis of the structure of international (agricultural) development cooperation. This will articulate the normative characteristics of this practice that function as presuppositions for this practice. The most important question here will be whether the faith aspect, whatever its content, normatively *qualifies* the practice, for it is only then that we can speak about international (agricultural) development cooperation as a religious practice as such. However, if the faith aspect does not qualify the (agricultural) development cooperation practice—and we think it does not—this does not mean that faith is absent from the practice. The NPA makes clear that it will continue to function as a worldview (part of the regulative side), influencing the interpretation of all the normative rules of the practice (constitutive side), as we have argued in this paper.

Indeed, the most important conclusion of this paper is that every normative practice has a faith aspect, but not every practice is normatively qualified by the faith aspect; in fact most practices are not. More specifically, we have argued that we should distinguish between farming, agronomic science, and faith practices, which are qualified by economic, analytical, and faith aspects, respectively.

The most important implication of the NPA is that it comprises a critique of a narrow 'science-based', or, as popular in policy circles, 'evidence-based' approach. We emphasize 'narrow', because clearly science and evidence do have an important role to play in relation to agricultural development. Yet, as we have argued, we will have to keep in view

²⁰ Andersson and Giller do realise that agriculture cannot do without “agricultural development aspirations” (Giller et al. 2015, p. 10). We could see aspirations as a manifestation of the regulative function of faith in agricultural practice: when in good order, we as human beings involved with farming do pose the question what makes for a *meaningful* agricultural development. And the farmer will ask him- or herself what his or her place is in this process.

that farming is not a scientifically qualified practice, but an economically qualified practice. Science is important and scientific findings will always need to be integrated into the farming practice. But this integration happens from a broader outlook on the world and the place of human beings in it. That is, the direction agricultural development takes, is not only determined by ‘the scientific evidence’, but in an important sense also by the worldview commitments of practitioners, be they farmers, scientists, or FBO staff. And it is precisely here that faith and religion play their crucial role.

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