SINE QUA NON CAUSES AND THEIR DISCONTENTS

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Abstract. For theological reasons, medieval thinkers maintained that sacraments "effect what they figure," that is, they are more than mere signs of grace; and yet, they also maintained that they are not proper causes of grace in the way fire is proper cause of heat. One way to reconcile these requirements is to explicate sacramental causation in terms of *sine qua non* causes, which were distinguished from accidental causes on the one hand, and from proper efficient causes on the other hand. This paper traces the development of this concept, as discussed in the context of the sacraments, from Scotus and Auriol, via Ockham and Peter of Ailly, to Gabriel Biel. It shows how the discussion, in its later stages, opened up concerns about occasionalism, offering thereby a case study of how particular theological issues led to metaphysical ones in the fourteenth and fifteenth century.

"If God determined that from this day... to the uttering of certain words, God would give rain, then those words... would be just as properly causes of rain... as heat is the cause of heat" (*Coll.* IV.1.1.1),[1] claims Gabriel Biel in the fifteenth century. From the standpoint of a broadly-speaking Aristotelian tradition, to which Biel, according to his own appraisal, belongs,[2] this remark is rather puzzling. According to that tradition, things act in certain ways because their causal powers, by which they elicit their characteristic actions, are rooted in their natures; words, however, certainly do not possess a *nature* to elicit rain-production, and indeed, according to the quote above, it is God and not the words that do the producing.

Because of such remarks, Biel is usually regarded as an occasionalist—maintaining that God is the only causally active agent in the world.[3] Yet, the above remark does not appear in the context of discussing the possibility of creaturely causation, nor does Biel offer the "standard" medieval (and early modern) argument for occasionalism, found in thinkers such as Al-Ghazali, Nicolas of Autrecourt, or Malebranche, proceeding from the claim that there is no necessary connection between what we perceive as causes and effects in the created world.[4] Instead, Biel makes his surprising claim in the context of sacramental causation, that is, in his question on how sacraments cause grace.

The focus of this paper is not so much Biel's occasionalism but rather the tradition of discussing sacramental causation in terms of *sine qua non* causes (more about that below), in which tradition he also belongs. For while it is true that apart from the lineage from Al-Ghazali to Nicolas of Autrecourt,[5] we find very few arguments in the Latin Middle Ages for the conclusion that created causation is illusory, nevertheless, the discussion about the

1. Biel, *Collectorium*, book IV, distinction 1, part 1, question 1: "si Deus determinaret se, quod ab hac die ad prolationem alicuius verbi a quocumque prolati velit dare pluviam, verbum illud iam prolatum ita proprie esset causa pluviae ad eius prolationem a Deo causatae sicut calor est causa caloris" (Gabriel Biel 1975, 17). Unless otherwise noted, all translations from the Latin are mine.

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2. Cf. *Coll.* IV.1.1.1, 36.

3. See, e.g., the relevant chapter in Perler and Rudolph 2000, 189–200.

4. For the discussion of this "no necessary connection" argument, see, e.g., Nadler 1996.

5. These are the medieval authors discussed by Nadler, in Nadler 1996.

distinction between proper and *sine qua non* causes can offer a different approach to the same problem.[6]

There were at least four contexts in which medieval thinkers would customarily discuss *sine qua non* causation. First, concerning the will and its object, namely the question whether, and in what way, the object of a volition can be regarded as the cause of that volition.[7] Second, the parallel question about cognition, i.e, the question whether, and in what way, the object of a cognitive act can be regarded as the cause of that cognitive act.[8] Third, the theological question whether, and in what way, merit can be said to cause reward or salvation.[9] And finally, fourth, the also theological question about sacraments, whether, and in what way, sacraments are causes of grace. It is this last question and some possible answers to it that will provide the backbone of the present paper.

Sacramental causation in medieval theology has been studied,[10] and the same is true about bits and pieces of the medieval history of *sine qua non* causation, including Gabriel Biel's connection to early modern occasionalism.[11] But our understanding of this history is at best gappy. This paper aims to fill some of these gaps, by offering a more comprehensive overview of the development of the notion of *sine qua non* causes in the Middle Ages, as motivated by the problem of the sacraments (more about that below). It is during this development that the rather innocuous claim that sacraments are *sine qua non* causes turned into Biel's surprising claim that there is no distinction between the way in which fire causes heat and the way in which sacraments cause grace. By showing how the discussion about sacramental causation encouraged thinkers to develop and refine the concept of *sine qua non* causation as a genuine causal category, the paper also provides a case study of how theological problems stimulated philosophical reflection in the fourteenth century.

In the rest of the paper, I proceed as follows. In Section 1, I briefly illustrate some of the difficulties of positing *sine qua non* causation as a causal category, and, also briefly, present the sacramental problem, to which the later discussions of *sine qua non* causation offered some possible solutions. In Section 2, I present how Duns Scotus (1266–1308) and Peter Auriol (1280–1322) solve the sacramental problem by developing something that will strongly resemble *sine qua non* causation as discussed in the subsequent section. In Section 3, I turn to what I call the "standard view" of *sine qua non* causes, as described by William Ockham (1285–1347) and Peter of Ailly (1351–1420). In Section 4, I compare Gabriel Biel's (1420–1495) account to the previously seen ones; at that point, it will be apparent how it grows out of especially the Franciscan tradition.

Section 1. Preliminaries: Discontents and Motivations

As Peter Hartman has put it in a recent paper, "[v]ery roughly, the relation of *sine qua non* causality is what we would recognize nowadays as a relation of causal dependence. By contrast, the relation of efficient causality is causal dependence *plus something more*" (Hartman 2014, 230, emphasis in the original). As the subsequent examples suggest, "what we would recognize as causal dependence" is, by and large, constant conjunction or counterfactual dependence, while the "*plus something more*" refers to a process that can be metaphysically explicated by active and passive causal powers. (More precisely, efficient

6. *Sine qua non* causation and occasionalism are discussed in Perler and Rudolph 2000. See also Sangiacomo 2019, focusing on Malebranche's influence on Kant, but also mentioning Ockham's view.

7. For an overview of some of the issues, and for further literature, see, e.g., Kent 1995.

8. For an analysis of some of the issues especially in the early fourteenth century, see Hartman 2014; and Solère 2014. See also Perler 2020.

9. For an overview, see McGrath 2005, especially 148ff.

10. See especially Adams 2007 and Adams 2010b, as well as the papers in Courtenay 1984.

11. For Biel, see especially Perler and Rudolph 2000. For Ockham, see Goddu 1996 and Sangiacomo 2019.

causation is a relation in which an agent produces, by its active power, a form in the patient endowed with the relevant passive powers.) This (admittedly vague) characterization seems to suggest that the notion of *sine qua non* causality is relatively unproblematic, and the distinction between *sine qua non* and proper efficient causes is clear-cut.

Despite appearances, however, the distinction was not unproblematic for medieval authors. In particular, it was not altogether obvious how to distinguish the *sine qua non* causal relation from other kinds of causal relations, and in general, how to find place for it in a broadly-speaking Aristotelian framework.

According to Aristotle and most medieval Aristotelians, there are two basic kinds of causal relation.[12] On the one hand, there is a strong correlation that is called *per se* causation: c is a *per se* cause of e in case e really depends on c in its existence, which dependence is often described in terms of active and passive causal powers. As Aristotle illustrates it in the *Physics*, the builder is a *per se* cause of the (process of) building, because the term 'builder' is used for a person who has building power, the characteristic activity of which results in building.[13] On the other hand, there is another kind of correlation that is much weaker, which is called accidental (*per accidens*) causation. If the builder happens to be of a pale complexion, we can truly say that "a pale man builds the house." But the complexion of the builder makes no contribution to the building whatsoever, nor to the building power of the person. In other words, while effects depend on their *per se* causes for their existence, they do not so depend on their *per accidens* causes; the same builder could have built the same house had he been sunburnt.[14]

Given this general background, the question immediately arises: if *sine qua non* causes are causes at all, under which of these two kinds do they fall? On the one hand, if it turns out that *sine qua non* causes are neither *per se* nor *per accidens* causes, that may suggest that there is no place for them in the Aristotelian framework. On the other hand, if *sine qua non* causes do belong to one of the main categories, that may suggest that they do not constitute a distinct causal category after all, and that the notion is altogether dispensable.[15]

Indeed, we can find criticisms of *sine qua non* causation along these lines in various medieval authors. In the context of the will and its object, for instance, while Henry of Ghent arguably holds that the object of volition is a *sine qua non* cause of the volition,[16] Scotus objects to him by claiming that *sine qua non* causation does not pick out a causal concept at all (even though, as will be seen below, Scotus does allow for *sine qua non*

12. Here and in the following, unless otherwise noted, we are talking about efficient causes.

13. *Physics* 2.3, 195a15–b3. There are several details to be worked out in such an account—what causal powers really are, how they work, etc.—but these questions fall outside the scope of the present paper. For a recent analysis and further literature, see Frost 2018. See also Löwe 2017 for Auriol's account. It should also be kept in mind that in another one of Aristotle's examples, Polycletus the sculptor is said to be the accidental cause of the statue. But this is so since the sculptor, the *per se* cause of the statue, only accidentally happens to be Polycletus (in other words, being Polycletus has no causal influence on the statue, but only being a sculptor does). For a characterization similar to the above, in the context of sacramental causation, see Adams 2010a, 191.

14. Accidental causation encompasses more than this brief characterization would suggest; it was customary to distinguish accidents that inhere in the *per se* cause, and ones that inhere in the effect. (The builder is also an accidental cause of the "white house," where whiteness is considered as an accidental feature of the house being built.) These distinctions will not play a role in what follows, thus we can mostly disregard them here. On how to identify and characterize accidental causes, see, e.g., Frede 1992 and Huismann 2017.

15. According to Solère 2014, *sine qua non* causation is troublesome for the Aristotelian because it is a Stoic concept, originating perhaps from Cicero. Since the authors I discuss have at most a superficial knowledge of Stoic philosophy, I am not going to address this question here.

16. For an analysis of Henry's view, see, e.g., Vucu 2017.

dependence when discussing the sacramental problem).[17] As he notes, "One cannot find such a *sine qua non* cause in the whole universe, as that is called a *sine qua non* cause, which when it does not act, the other does not act, and [nevertheless] which has no causality on the other, nor on its act" (*Secundae additiones*, 200).[18] Scotus seems to think that *sine qua non* causes either exert some causal influence, in which case they are just like proper causes; or, if a *sine qua non* cause is something that exerts no causal influence and yet is required for a cause to act, then we simply will not find any, since there are no such "inert" causes in nature.

Apart from the concern that *sine qua non* causes seem to be either proper causes or no causes at all, there are authors who think that *sine qua non* causes are problematic because they fall into the category of accidental causes. This is, among others, Aquinas's position when discussing sacramental causation:

> For some say that [the sacraments]... are *sine qua non* causes.... For [according to them] God so ordained the world that who receive the sacraments, receive also grace from Him; not that the sacraments actually do anything to that.... But this does not seem to be sufficient to solve the sayings of the saints; for a *sine qua non* cause, if it does not do anything to induce the effect... as a cause, has nothing above *per accidens* causes, just as [when we say that] the pale is the cause of the house if the builder is pale (*Sent.* IV.1.1.4).[19]

According to Aquinas, *sine qua non* causes are accidental causes: they are no more strongly related to their effects than the pale person is related to the house being built. As such, they can contribute nothing to metaphysical explanations that are supposed to rely on essential features, and every explanation that relies on them is insufficient.[20]

Given all this criticism, the primary challenge in what follows is to work out a concept of *sine qua non* causation that is explanatorily meaningful and can resist these objections. My contention is that the theological problem of sacramental causality served as a catalyst for developing and refining such a concept.

The various philosophical and theological problems surrounding sacraments have been treated elsewhere in great detail,[21] thus the bare minimum will suffice here. According to medieval theological consensus, sacraments, such as baptism or the Eucharist, are "efficacious signs of grace." Two of their characteristics will be important here. First,

17. As is carefully documented by Dumont 2001, this is not the final position of Scotus regarding the will and its object. See also Ingham 2002 for some further analysis.

18. "In toto universo non invenitur talis causa sine qua non, ut illud dicatur causa sine qua non, quo non agente, aliud non agit, quod non habet causalitatem super illud, nec super actum eius" (Balic 1931, 200, quoted by Kent 1995, 145).

19. Aquinas, *Sententiarum* book IV, distinction 1, question 1, article 4: "Quidam enim dicunt quod non sunt causae quasi facientes aliquid in anima, sed *causae sine quibus non*.... Sic enim ordinavit et quasi pepigit Deus, ut qui sacramenta accipiunt, simul ab iis gratiam recipiant, non quasi sacramenta aliquid faciant ad hoc.... ¶Sed hoc non videtur sufficere ad salvandum dicta sanctorum. *Causa enim sine qua non*, si nihil omnino faciat ad inducendum effectum... quantum ad rationem causandi, nihil habebit supra causas per accidens: sicut album est causa domus, si aedificator sit albus" (Thomas Aquinas 1947, 31, emphasis in the original). In the following, medieval commentaries on the *Sentences* will be denoted by *Sent.*, followed by the book number, distinction number, question number, and article number (or whichever these is applicable).

20. Many later Dominican authors follow Aquinas in this assessment (with the notable exception of Durand of St.-Pourçain in the early fourteenth century, who explicitly distinguishes *sine qua non* causes from accidental ones when discussing the sacraments (Durand of St.-Pourçain 2014, 28–29)). While not arguing for it explicitly, and despite his frequent critical remarks about the Thomistic position, Nielsen 1997 also seems to be taking Aquinas's concept of *sine qua non* causes for granted.

21. Adams 2007; Adams 2010a; and Adams 2010b, especially chapter 3.

sacraments tend to have a material constituent,[22] such as the baptismal water or the Eucharistic bread, and if the words that need to be uttered are in fact uttered, the sacraments convey some spiritual benefit to the recipient. Baptism, for instance, frees the receiving person from original sin; the Eucharist unites the receiving person with the body of Christ. Second, connectedly, what distinguishes real sacraments as established in the New Testament from their forerunners in the Old Law, is that while the latter are mere signs of grace, the former "effect what they figure"—in other words, real sacraments are, in some sense, causally responsible for the grace they signify.[23]

While this broad theological picture is relatively clear, its metaphysical underpinnings are remarkably murky. In what sense can the sacraments be called causes? If they are *per se* causes of grace, this means that they possess some power by which they act—but is this power material or spiritual? If material, how would it act on the immaterial soul? If spiritual, how would it inhere in the material body of the sacrament? How can a sacrament, a material thing, produce grace, which is spiritual? How can it produce grace at all, given that grace inheres in the immaterial soul, and thus its production would amount to creation? Moreover, if sacraments produce grace, determining thereby the recipient's final eschatological status (i.e., whether they end up in heaven or hell), does that mean that God has no freedom with respect to whom to grant salvation?

Trying to rescue sacramental causation from this quagmire opened up plenty of opportunities for medieval thinkers to refine the causal concepts at play in the initial definition of sacraments.[24] These more refined causal concepts, in one way or another, enabled them to maintain that sacraments are more than merely accidentally related to the grace they signify, yet also claim that they are not efficient causes in precisely the same way as, for instance, fire is the efficient cause of heat.

There were, by and large, two main strategies to deal with the difficulties, which I will call the "Inherent Power Theory" and the "Contract Theory."[25] First, according to the Inherent Power Theory, usually attributed to Hugh of St.-Victor and becoming the solution mostly favored by Dominicans (from Aquinas to the fourteenth-century Hervaeus Natalis and Peter of Palude to John of Capreolus and Cajetan, just to mention a few),[26] while sacraments are not *per se* efficient causes of grace, they still possess some inherent, infused causal power by which they act. According to this view, the sacraments are either instrumental causes, by being instruments of the higher, grace-producing cause, and as

22. The sacrament of matrimony is an exception, which thus presented special problems for the general treatment of sacraments. I will disregard these problems here.

23. Interestingly, official formulations of this doctrine tend to come later, mostly from the Council of Trent (see especially session VII, canons 2 and 6, Denzinger 2012, §§845, 849.) But for a somewhat vague way of putting it particularly against the Albigensians, see the *Fourth Lateran Council*, Denzinger 2012, §802.

24. According to William Courtenay, "[c]arefully argued theories concerning sacramental causality were not developed before the thirteenth century" (Courtenay 1973a, 112), and although certain sacraments played an important role in Patristic theology, it was not until the generation of Bernard of Clairvaux when the efficacy of the sacraments started to receive systematic philosophical attention. Thus, the above remark should be understood to apply especially to late thirteenth- and fourteenth-century thought.

25. Individual authors, of course, display a great variety within these general strategies. For a different and more fine-grained grouping, see Courtenay 1971, especially 97–101. For an overview of some authors, see Adams 2010b, ch. 3.

26. The usual place to discuss this question and where all the above authors do so, is in the first distinction of book IV of the *Sentences*. Durand of St.-Pourçain, Peter of Palude's contemporary, is an exception here; at least in the first redaction of his *Sentences* commentary, he maintains that sacraments are merely *sine qua non* causes. (The same question is missing from the second redaction of his commentary, which may suggest that this could have been a contentious issue during the investigation he had to face about his orthodoxy.) For an examination of Durand's view and its changes, see Jeschke 2013. See also Nielsen 1997, 232–236.

such, they can contribute to a production that would surpass their own limited power (just as a saw can contribute to the production of a bench that would on its own surpass its power);[27] or they are dispositive causes, by bringing about an appropriate disposition or character in the soul that would make the soul able to receive grace, which is then produced by the higher power. There are many details to work out in the Inherent Power Theory, but it can seemingly solve the problems concerning the action of the material sacrament on the immaterial soul, while also taking care of the difficulty about divine freedom.

Second, the Contract Theory maintains that sacraments have no special powers and are not proper causes (whether dispositive or instrumental) at all, as the Inherent Power Theory would have it, but are instead merely *sine qua non* causes. What this precisely means, as will be seen below, slightly varies from author to author; but the general idea is that a kind of contract between God and the Church underlies the seeming causality of sacraments. The main challenge of this second strategy is to explain what this precisely means: that is, to allow sacraments to be more than mere signs of grace (a theologically unacceptable option), and yet maintain that they do not possess an inherent causal power by which they would contribute to its production. (Call this the *Sacramental Problem*.) In other words, the Contract Theory requires a viable concept of *sine qua non* causation, distinguishing it from merely accidental causation on the one hand, and from proper efficient causation on the other hand. It is this second strategy—and the resulting ways of working out such a viable concept—that will be the main concern of the rest of this paper. While the history of the Contract Theory goes back at least to Richard Fishacre and Robert Kilwardby in the mid-thirteenth century,[28] or even to Bernard of Clairvaux (the standard authority to mention when discussing the position) in the twelfth,[29] I focus on later authors—Duns Scotus, Peter Auriol, William Ockham, and Peter of Ailly—who more or less explicitly address the difficulty of positing *sine qua non* causation as a genuine causal category.

Section 2. Equivocal Views: Duns Scotus and Peter Auriol

While both Scotus and Auriol reject the Inherent Power Theory of sacraments explicitly,[30] they are not so explicit in spelling out sacramental causation in terms of *sine qua non* causes. (In fact, as was mentioned above, Scotus himself is rather skeptical of the notion in other contexts.) This has lead some interpreters to think that they deny that sacraments are *sine qua non* causes altogether.[31] For besides rejecting the Inherent Power Theory, they also deny that sacraments are merely accidental causes of grace; hence, if it turns out

27. Cf. Aquinas, *Sent.* IV.1.1.4.1. This strategy thus depends on a specific understanding of instrumental causality, as Peter Auriol already explains when discussing Aquinas's position. For Aquinas's relevant notion of instrumental causes, see, e.g., *Summa theologiae* III.62.1.co.. For an overview and comparison of two competing understandings of instrumental causes, see Solère 2019.

28. Cf. Courtenay 1972, 191–193.

29. The interpretation of Bernard's passage in *De cena Domini* was somewhat controversial in the thirteenth century. For some details, see especially Courtenay 1973a.

30. For Scotus, see *Reportatio* IV.1.4 (Johannes Duns Scotus 2016, 34–44). For Auriol, see *Sent.* IV.1.1.1 (Peter Auriol 1605, fols. 9a–12a). For Auriol's text, I mostly rely on the Rome 1605 edition, which is, in many cases, sub-optimal (for some of the difficulties, see, e.g., Tachau 1997; Schabel 2000; and Nielsen 2002). When necessary, I have corrected it against Paplin, Bibl. Seminarium Duchownego, 46 (85). (I am grateful to Russ Friedman for providing me with the manuscript). I respect the spelling but not always the punctuation of the Rome edition.

31. See, e.g., Nielsen 1997: "According to Scotus, it would equally be a total misunderstanding to claim that his view of the sacraments reduce them to the feeble position of being *causae sine quibus non*" (231, emphasis in the original); "According to Auriol. . . the sacraments cannot be viewed as accidental causes or *causae sine quibus non*" (236, emphasis in the original). For a reading of Scotus that is closer to mine,

that *sine qua non* causes are nothing but accidental causes, this would indeed imply that they cannot consistently maintain that sacraments are *sine qua non* causes. I will argue, however, that neither Scotus nor Auriol regards *sine qua non* causes as falling under the general category of accidental causes, and that in this, they foreshadow Ockham's and Peter of Ailly's understanding of the same concept.

Scotus summarizes his solution to the Sacramental Problem in the *Reportatio* by claiming that "the sacrament of baptism acts dispositively towards grace, because God so contracted with the Church that whenever such a sign is given... God would assist with granting what the sign signifies" (*Rep.* IV.1.1).[32] This is a clear endorsement of the Contract Theory: the baptismal water is efficacious not because of its own causal power, but because God had established by a contract with the Church that whenever water is present and certain words are uttered, God would grant what the water and the words signify (i.e., grace).

Scotus does not say here explicitly that sacraments are *sine qua non* causes. Nevertheless, the kind of relation in which sacraments and grace stand according to the above description, is similar to what he elsewhere describes as *sine qua non* dependence:

> I say, therefore, that when one effect is posterior to another effect, and neither has a causal dependence on the other, the posterior effect depends on the proper cause, and also on the prior effect as a *sine qua non*.... Properly speaking, therefore, about the dependence of the effect to that which gives it being, the effect only depends on the *per se* causes; but speaking of that, on which it depends as a necessary condition, it depends on that as something *sine qua non* (*Rep.* II.25.1.16).[33]

According to this description, *sine qua non* dependence is not a *per se* causal relation, properly speaking, and not just because it is not *per se*, but, more emphatically, because it is not a causal relation at all. This means, however, that *sine qua non* dependence is not a merely accidental causal relation either; first, because again, it is not a *causal* relation, and also because while the accidental causal relation, by its accidental nature, is not a necessary dependence (in other words, as we have seen in the previous section, accidental causes are not necessary for their effects), the *sine qua non* dependence *is* necessary. More precisely, as Marilyn McCord Adams has shown,[34] for Scotus, *sine qua non* causation can be regarded as a certain kind of essential dependence.[35]

In the *De primo principio*, Scotus distinguishes various ways in which one thing can essentially depend on another. Some of these ways are causal (such as a thing's dependence on its *per se* cause), but the last one is not: b can essentially depend on a even if a is not causally related to b at all, but they are both causally related to a common cause c, and b

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and for a further analysis concerning how Scotus's view of sacramental causation fits into his more general framework of essential dependence, see Adams 2010a.

32. "[I]ta potest vere dici sacramentum baptismi dispositive agere ad gratiam, quia sic pepigit Deus cum ecclesia ut quandocumque esset tale signum efficaciter significans signatum, quod datur in sacramento, Deus assisteret ad dandum quod signum significat" (ed. and tr. Bychkov, 20).

33. "Dico igitur quod quando unus effectus est posterior alio effectu, et neuter habet rationem causae respectu alterius, posterior effectus habet dependentiam ad causam propriam, et ad effectum priorem, tanquam ad *sine qua non*.... Proprie igitur loquendo de dependentia effectus ad illud, quod dat sibi *esse*, effectus tantum dependet ex causis per se; loquendo tamen de illo, ad quod dependet tanquam necessario praeexactum, dependet ad illud tanquam ad aliquid *sine qua non*" (Johannes Duns Scotus 1639, 370b).

34. Adams 2010a; see also Adams 2007, especially 62–66.

35. By 'essential dependence,' Scotus means an order of priority and posteriority where "the prior according to nature and essence can exist without the posterior, but the reverse is not true" (Johannes Duns Scotus 1966, 4, tr. Wolter). For an overview of Scotus's notion of essential dependence, and further bibliography, see, e.g., Flores 2000.

is a more remote effect of c than a is.[36] (Taking this as applying to essentially ordered effects of a common cause,[37] one could say that while both light and melting a piece of wax are effects of the sun, the former is more prior than the latter and so there is an essential order of dependence between them, even though they are not causally related.) According to the above-quoted *Reportatio* passage, explicitly describing *sine qua non* causes and their effects as the more and less proximate effects of a common cause, *sine qua non* causes also belong in this last, non-causal category of essential dependence.

Consequently, for Scotus, the phrase "*sine qua non* cause" is somewhat of a misnomer: *sine qua non* dependence is not a causal dependence, and therefore *sine qua non* causes are not causes at all. Overall, it is because of this that Scotus can maintain, on the one hand, that there is a difference between *sine qua non* "causes" and proper efficient causes (the former has no causal power that would be responsible for the production of the effect, while the latter does); and also maintain, on the other hand, that *sine qua non* "causes" are more than accidental causes (the former is a kind of essential dependence, while the latter is not).

As can be seen from the first *Reportatio* passage quoted above, it is in this way that sacraments and grace are related. Sacraments have no inherent causal power to bring about grace, nevertheless, they are more than accidental causes: by the God-instituted contract, grace is not produced without them. God as a common cause grounds the essential dependence between sacrament and grace, without thereby making this dependence a causal one; indeed, the dependence is merely *sine qua non*.

Similarly to Scotus, Peter Auriol also maintains that it is God who brings about grace directly in the recipient of sacraments. But while Scotus regards *sine qua non* "causation" as a kind of non-causal essential dependence, Auriol places it in the category of *per se* causation.

Auriol starts dealing with the Sacramental Problem by arguing that ultimately, there is no meaningful distinction to be made between proper and *sine qua non* causes—formulating thereby an argument that Ockham and Peter of Ailly will later treat as objections to their accounts. As Auriol argues,

> We cannot distinguish *sine qua non* causes from *per se* causes, which I show in this way: the negation of which is the cause of negating [something], its affirmation is the cause of affirming [the same thing]. . . . Therefore, if something is a *sine qua non* cause, since its negation is the cause of negating the effect, therefore, its position is the cause of positing the effect. Therefore, what is a *sine qua non* cause, is [also] a *cum qua sic* cause, and even more so, if something is a *cum qua sic* cause, then it is a *sine qua non* cause (*Sent.* IV.1.4).[38]

36. Cf. *De primo principio* I.13: "Nam prius, quod est causatum propinquius causae, non tantum dicitur quod est propinquius causae proximae utriusque sed etiam remotae; puta si proxima causa unius, sit A, non est aliquo modo causa alterius, sit B; sed aliqua alia causa prior est causa eius B proxima et est causa remota illius cuius alia est causa proxima; adhuc inter ista causata erit ordo essentialis" (Johannes Duns Scotus 1966, 9).

37. The *De primo principio* is primarily concerned with order among *causes* – i.e., essential dependence in the act of causing. Scotus's example for the last, non causal category of essential dependence is the mind and an object causing knowledge.

38. "Nec oportet distinguere causam sine qua non a causa per se, quod probo sic: cuius enim negatio est causa negationis, eius affirmatio est causa affirmationis. . . ; ergo si aliquid sit causa sine qua non, cum eius negatio sit causa negationis effectus: ergo eius positio est causa positionis effectus; ergo quod est causa sine qua non, est causa cum qua sic, immo quia aliquid est causa cum qua sic, ideo illud est causa sine qua non" (Rome ed., 17aF–bA).

Auriol seems to be thinking of cases where—just as in Scotus's examples of non-causal essential dependence—the effect always comes about when its *sine qua non* cause is present in the proper circumstances. The example he gives later well illustrates this point: when a human being is brought about by the parents and the sun,[39] we may be tempted to say that the sun is a mere *sine qua non* cause of the generation. This is, however, misleading, according to Auriol: when all the other circumstances are present (including the parents' procreating), then the offspring will come about just in case the sun is cooperating—in other words, the sun is not merely a *sine qua non* cause but also a *cum qua sic* cause (*Sent.* IV.1.4 (Rome ed., 17bB)). Auriol thinks that this example generalizes, that is, that *sine qua non* and *cum qua sic* descriptions of causes are always interchangeable.[40]

While Auriol thinks that we cannot make the customary distinction between merely *sine qua non* and *per se* causes, it is true that not all causes act in the same way. The distinction, however, is not made in terms of causal influence but in terms of directness: among causes, there are some that directly act on the effect, and there are others that act indirectly, by the mediation of some other cause.[41] Fire would not be able to cause heat (or burn down a house) without having been set; an thus in this sense, the one who is building the fire is an indirect cause of the produced heat, even though not acting on the house directly at all.[42] Oxygen can similarly be called an indirect cause of the burning down of the house, since it enables the fire to burn, even though again, it does not act on the house directly at all. Auriol's examples also suggest that his category of direct causes will roughly pick out what we customarily call *per se* causes, while his category of indirect causes roughly refers to what we customarily regard as *sine qua non* causes. If this is correct, then we can see an attempt, again, to distinguish (what we would customarily call) merely *sine qua non* causation from accidental causation on the one hand,[43] and from (what we would customarily call) *per se* causation, on the other hand.

According to Auriol, sacraments are also indirect causes of grace (and hence, if the above is correct, fall into what we would customarily regard as *sine qua non* causes):

> Sacraments are *per se* causes of grace, not because their causality is *per se* and directly [terminated] in the effect of grace... but... because they act in some way on the cause from which the effect flows forth: for they apply the divine power to action, which otherwise would not act (*Sent.* IV.1.4).[44]

39. Cf. "Homo generat ex materia hominem et sol," *Auct. Arist.* 2, 65 (Hamesse 1974, 145).

40. Cf. *Sent.* IV.1.4: "Causae sine qua [pro: quo] non circuit omnes causas, nam omnes causae sunt causae sine qua non" (Rome ed., 17aF).

41. Cf. *Sent.* IV.1.4: "Causarum enim per se quaedam sunt, quarum causalitas est directe et per se in effectum; quaedam vero quarum causalitas non est directe in effectum sed mediante causa principali" (Rome ed., 17bE).

42. Durand of St.-Pourçain seems to have a similar (albeit not identical) view of *sine qua non* causation; *sine qua non* causes are what reduce an accidental potency to act. See *Sent.* II.3.5 (Durand of St.-Pourçain 2012, 159–160); and Hartman 2014, 244–249.

43. Auriol does not worry about this distinction here, presumably because he thinks that accidental causes do not fit the definition of a cause (they can come and go without affecting whether the effect be produced), and also because the context is sacramental causation, and as was seen in Section 1 above, spelling out sacramental causation in terms of accidentaly causes is theologically a no-go.

44. "Sacramenta sunt causa gratiae per se, non quod eorum causalitas sit per se et primo in effectum gratiae (sola enim causalitas divina attingit per se et primo ipsam gratiam), sed sunt causa gratiae per se quia aliquid faciunt circa causam, a qua profluit effectus: applicant enim virtutem divinam ad agere, quae alias non ageret, nisi sic applicata" (Rome ed., 17bE).

Thus, according to Auriol, while sacraments do not effect grace directly, they enable its production by God, and are, in this way, *per se* albeit indirect causes.[45] They resemble what will be usually called *sine qua non* causes in that they do not act on the effect, which rather comes about by the action of a third, voluntary agent.

All in all, both Scotus and Auriol think that sacraments are efficacious because of a God-instituted contract between God and the Church. I labeled their views 'equivocal,' since neither of them explicitly describes sacraments as *sine qua non* causes. Nevertheless, they both think that sacramental causality is a kind that is neither properly *per se* nor merely *per accidens*, and in this it resembles what is usually called *sine qua non* causation: while according to Scotus, it is a form of non-causal essential dependence, according to Auriol, it is a form of indirect causation that is terminated in the direct cause. They both fall under what I have labeled as the 'Contract Theory' in that they hold that the sacraments do not act on the recipient, but their efficacy is due to some agreement between God and the Church that whenever sacraments are present, God will produce grace. In this, their solution to the Sacramental Problem resembles Ockham's and Peter of Ailly's subsequent solution.

Section 3. The "Standard View": William Ockham and Peter of Ailly

William Ockham and Peter of Ailly,[46] just like Scotus and Auriol before them, reject the Inherent Power Theory of sacramental causation, and solve the Sacramental Problem by maintaining—now explicitly—that sacraments are *sine qua non* causes of grace.[47] Also just like Scotus and in some sense Auriol, they maintain that *sine qua non* causes are neither accidental nor proper or *per se* causes, strictly speaking. Ockham and Peter, however, cannot take Scotus's way out of the problem, by identifying *sine qua non* causation with a form of essential dependence, since they reject Scotus's notion of essential order altogether.[48] Nor can they take Auriol's way out, by in some sense equating *sine qua non* causes with *per se* causes, since they are both insistent on the distinction between the two.

As far as accidental causes are concerned, Ockham quickly makes the case that *sine qua non* causes do not belong to this category, for the simple reason that accidental causes are not causes at all:

45. Auriol goes as far as to say that every time someone receives a sacrament, God forms a practical syllogism along the lines of "I have decided that to whomever receives the sacrament etc., I will donate grace; Peter is now receiving the sacrament; therefore, I will donate grace to Peter" (Rome ed., 17bF).

46. As is well known, there has been much ink spilled on Ockham's theory of efficient causes (for an overview with plenty of references, see Adams 1987, chapter 18), and we do not need to re-hash that interpretative debate here. While the same is not entirely true of Peter of Ailly, he has, at least since Molina, been often regarded as an occasionalist, allegedly maintaining that it is only God who is causally active in the happenings of nature (for Molina, see Luis de Molina 1953, 159–160). As will be seen below, Biel agrees with that reading, and so does Malebranche (Malebranche 1997, 680). Leonard Kennedy, even in 1986, claims that Peter's *Sentences* commentary is nothing but "a meditation on the absolute power of God" (Kennedy 1986, 27). For Peter of Ailly's text, I have been mostly relying on the Strasbourg edition (Peter of Ailly 1490), which, however, is not altogether reliable. For some issues with this text, see Calma 2007, and the "Introduction" in Peter of Ailly 2013.

47. "[S]acraments are the cause of grace, because God so ordained that grace is not conferred unless the sacraments are present, and [that] it is conferred when the sacraments are present, and therefore it is a *sine qua non* cause" (Ockham, *Rep.* IV.1, William Ockham 1984, 14); "[A]ny sacrament of the New Law is a mere *sine qua non* cause of grace" (Peter of Ailly, *Sent.* IV.1.1, Strasbourg ed., fol. 31vb). I disagree with André Goddu here, who claims that "[b]y the time Ockham wrote his commentary, the idea that the sacraments are true instrumental causes had been well established" (Goddu 1996, 361). While it is true that the Inherent Power Theory was the prominent one among Dominicans at least after Aquinas, it was almost universally rejected by Franciscan authors of the time.

48. Cf., e.g., *OTh* VI: 666; Adams 1987, 772–780.

> A *sine qua non* cause is something more than a *per accidens* cause. . . . A *per accidens* cause is that which when removed, the effect is nevertheless posited. Example: the pale which is the accidental cause with respect to the building. But when the sacraments are removed, nothing follows in the soul, nor is grace conferred (*Rep.* IV.1).[49]

At least in a first approximation, we can say that c is an efficient cause of e if and only if upon the presence of c the presence of e follows, while upon the absence of c the absence of e follows.[50] As Ockham points out, *sine qua non* causes and *per se* efficient causes both meet this definition, while accidental causes do not. On the one hand, *sine qua non* causes are necessary for the production of the effect; consequently, their absence does imply the absence of the effect, at least by the ordained divine power.[51] On the other hand, while a "pale thing" may be called an accidental cause of health, the doctor could just as well have healed the patient had she gotten sunburnt—in other words, the absence of an accidental cause does not imply the absence of the effect. Thus, while there is nothing explanatory about the holding of the relation between an accidental cause with respect to an effect, the relation between *sine qua non* causes and their effects *is* explanatory. In other words—if we take 'cause' broadly to mean an explanatory relation—*sine qua non* causes are indeed causes, while accidental causes are not.

This does not mean, however, that *sine qua non* causes are explanatory in the same way as *per se* or proper efficient causes are. Indeed, Ockham and Peter set up the distinction between proper and *sine qua non* causes precisely as a distinction between what grounds the causal connection in question. In Peter's words,

> [S]ince a cause is that upon the being of which another follows, something can be said to be a cause in two ways. In one way, properly: when upon the presence of the being of one, by its power and by the nature of the thing, follows the being of another; and in this way, fire is the cause of heat. In the other way, improperly: when upon the presence of the being of one the being of the other follows, but not by its power nor by the nature of the thing, but merely by the will of another. And in this way are meritorious acts causes with respect to reward. And also in this way is a *sine qua non* cause a cause (*Sent.* IV.1.1).[52]

According to Ockham and Peter, on the one hand, in a proper efficient causal relation, the connection between cause and effect is grounded in the nature of the cause: c is a proper efficient cause of e just in case if c is posited then e is posited without any further entities, *by the nature of* c. On the other hand, in a *sine qua non* causal relation, the connection is grounded in the will of another: c is a *sine qua non* efficient cause of e just

49. "[C]ausa sine qua non aliquid plus dicit quam causa per accidens. . . . [C]ausa per accidens est illa qua amota, nihilominus ponitur effectus. Exemplum de albo quod est causa per accidens respectus aedificandi. Sed amotis sacramentis non sequitur aliquid in anima, nec confertur gratia, igitur etc." (*OTh* VII: 8–9).

50. Cf. *Ord.* I.1.3: "quod ipso posito, alio destructo, sequitur ille effectus, vel quod ipso non posito, quocumque alio posito, non sequitur effectus" (William Ockham 1967, 416). See also the almost verbatim identical definition in the *Expositio Physicorum* (*OPh* V: 629–630).

51. Ockham, of course, maintains that God, by his absolute omnipotence, can give grace to whomever God wills.

52. "Quia enim causa est illud ad cuius esse sequitur aliud, dupliciter potest aliquid dici causa. Uno modo proprie: quando ad presentiam esse unius virtute eius et ex natura rei sequitur esse alterius; et sic ignis est causa caloris. Alio modo improprie: quando ad presentiam esse unius sequitur esse alterius, non tamen virtute eius nec ex natura rei, sed ex sola voluntate alterius; et sic actus meritorius dicitur causa respectu premii. Sic etiam causa sine qua non dicitur causa" (Strasbourg ed., fol. 31vb). Ockham's formulation of the distinction in the *Reportatio* is almost verbatim identical (*OTh* VII: 12); see also the texts cited in footnote 47 above.

in case if c is posited then e is posited without any further entities, not by its nature but by someone's will. Thus, similarly to how Scotus characterized it, the relation between *sine qua non* causes and their effects is grounded in a third relata: they are causes because an agent willingly makes a pact to accept a certain cause as a sign and then produces the effect, in the same way as a king can willingly order that a certain lead coin had some specific value.[53] This voluntary constituent is emphasized by Ockham and Peter multiple times; Ockham even points out that it is only in voluntary things that we can speak about *sine qua non* causation.[54] It is in this sense then that sacraments are *sine qua non* causes of grace: they are followed by grace not by their nature but by the divine will.

Having made this distinction between *per se* and *sine qua non* causes, Ockham and Peter go on to address a quibbler. The quibbler, perhaps inspired by Auriol's position, objects that the distinction is vacuous; that since something like counterfatual dependence is sufficient for causation, we can regard sacraments as *per se* efficient causes. In Ockham's version,

> It seems that everything such that when it is posited another is posited, is a cause properly speaking; for it does not pertain to the notion of cause that the effect follows necessarily, but that the effect cannot exist without it. Therefore, it is enough that when it is posited the effect is posited and that the effect is not posited without it. Therefore, the sacraments are causes properly speaking (*Rep.* IV.1).[55]

Peter puts the objection very similarly, while further emphasizing—showing perhaps some influence by Nicholas of Autrecourt—that if it is necessary connection that supposedly distinguishes *per se* and *sine qua non* causes, then we will not find the former anywhere, since the connection between cause and effect is always contingent.[56]

Ockham and Peter agree that the quibbler is mistaken. But while Ockham merely reaffirms the earlier made distinction between proper and *sine qua non* causes,[57] Peter shows a more serious worry about the objection, and resolves it in a series of propositions. In these propositions, he grants the quibbler that even proper causes are related to their effects contingently,[58] but nevertheless also maintains that there are causes that are causes not *sine qua non* but *per se*, by their own natural power: "that notwithstanding the

53. *Rep.* IV.1 (*OTh* VII: 6). Courtenay 1972 provides some interesting economic background to this analogy, and argues that the disagreement over *sine qua non* causality between Aquinas and Ockham ultimately reflects their conflicting assumptions about monetary value.

54. Cf. *Rep.* IV.1: "Unde in naturalibus non contingit dare aliquam causam sine qua non, nec mediatam nec immediatam, respectu alterius effectus, sed in voluntariis bene potest esse talis causa" (*OTh* VII: 14).

55. "Videtur quod omne illud quo posito ponitur aliud sit causa proprie dicta, quia non est de ratione causae quod ad ipsam necessario sequatur effectus, sed quod non possit sine ea. Igitur sufficit quod ipsa posita ponatur effectus, et quod non ponatur effectus sine ea, igitur sacramenta sunt proprie causa" (*OTh* VII: 15).

56. Cf. *Sent.* IV.1.1: "Quia videtur quod omne illud quo posito ponitur aliud sit proprie causa illus; nam de ratione cause proprie dicte non est quod ad ipsam necessario sequatur effectus aut quod non possit poni sine ipsa, quia ignis est proprie causa caloris et tamen non necessario sed mere contingenter ad ignem sequitur calor, sicut patuit de igne trium puerorum in fornace. Similiter calor etiam igne presente potest produci igne nihil causante, sicut patet si Deus se solo produceret calorem suspendendo actionem ignis presentis. Igitur ad hoc quod aliquid sit proprie causa alterius sufficit quod ipso posito ponatur illud et ipso non posito non ponatur. Sed sic est de sacramentis respectu gratie, etc., igitur etc." (Strasbourg ed., fol. 32ra).

57. Cf. *Rep.* IV.1: "Ad aliud de causa et effectu dico quod de ratione causae est quod possit virtute propria ad eam sequi effectus ex natura rei et naturaliter. Sic non est in proposito sed tantum ex voluntate divina" (*OTh* VII: 17).

58. Cf. *Sent.* IV.1.1: "Quarta propositio est quod nulla causa secunda sic est proprie causa alicuius effectus nec aliquis effectus sic ex natura rei sequitur ex aliqua causa secunda quod causa necessario inferatur effectum vel quod effectus necessario presupponat illam causam; immo effectus pure contingenter

aforesaid, some secondary efficient cause is a proper cause in such a way that it produces the effect by its proper power... that is, by the power which is in it" (*Sent.* IV.1.1).[59] Thus, both Ockham and Peter emphasize that there are efficient causes in the world that produce their effects by their proper power, and thus that God is not the only efficacious agent. They both think, just like their Franciscan predecessors, that although *sine qua non* causes are causes in some sense, they are not causes in the very same sense in which *per se* secondary causes are causes—the latter act on the effect by their nature, while the former do not.

While this mostly exhausts what Ockham says about *sine qua non* causation in the sacramental context, Peter considers some further arguments, which although do not force him to adopt the view that all causes are *sine qua non* causes, at least show that the emphasis of the debate had shifted by his time—as well as point forward to Gabriel Biel, who will cite and belabor these passages extensively.

First, Peter notes that even though there are proper efficient causes in nature, *that* something is a proper efficient cause is by the will of God alone. As he explains,

> Although upon the presence of a proper secondary cause an effect follows not just by the will of God but by the power of that cause and by the nature of the thing, nevertheless, *that* that upon the presence of some secondary cause an effect follows by the power of that cause or by the nature of the thing, is only by God's will (*Sent.* IV.1.1).[60]

Peter's claim in this passage is ambiguous. First, he might be claiming that God could have created a universe in which there are no created efficient causes at all—which is a rather modest claim, given that according to virtually all Western medieval thinkers, God could have not created at all, and it is certainly within God's power to create whatever world God wills (constrained only by the laws of logic, if at all). Second, Peter might mean that God could choose not to concur with created causes, in which case they would be insufficient to produce their effect by their proper power. Again, this is a claim that many earlier thinkers (including even Aquinas, Scotus, or Ockham) would grant.[61] Third, Peter's position might be that it is up to God's will to determine the characteristic effects of natures; God could have created a world where fire brought about coldness, by its nature, instead of hotness. Connectedly, fourth, Peter may be claiming that even given this present universe and the things with their specific natures within it, God could make it the case that these things would stop being efficient causes altogether. If Peter's intended meaning is what is expressed by interpretation three or four, then by this he denies necessary connection not just between causes and effects (a rather usual claim) but also between things and their causal powers (a rather unusual one).[62]

It is not clear from the available texts, which of these is Peter's intended meaning. Biel will adopt the last one, taking Peter as maintaining that God could change the universe

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sequitur ex secunda et secunda causa pure contingenter antecedit effectum suum" (Strasbourg ed., fol. 32ra).

59. "Quinta propositio: quod non obstantibus predictis aliqua causa efficiens secunda sic est proprie causa quod ipsa agit effectum virtute propria... id est virtute que est in ipsa" (Strasbourg ed., fol. 32ra).

60. "Licet ad presentiam cause secunde proprie dicte sequatur effectus non solum ex voluntate Dei, sed ex virtute ipsius cause et ex natura rei, tamen quod ad presentiam alicuius cause secunde sequatur aliquis effectus virtute ipsius cause seu ex natura rei solus est ex voluntate Dei" (Strasbourg ed., fol. 32va).

61. A usual example for this kind of scenario is Nebuchadnezzar's fire as described in the book of Daniel (Dan. 3:19–27). For some of its intricacies, see Toth 2020.

62. Aquinas, for instance, is explicit that not even God can make it the case that the characteristic effect of fire be coldness: "[God] does not act against nature [in this sense], because does not, and cannot [make it the case] that a natural active cause, remaining the same according to its species, had another essential effect" (*Sent.* I.42.2.2, ad 4).

into one with only *sine qua non* causes at any moment, or even maintaining that the universe is already such. According to this most radical interpretation then, Peter would hold that just as a lead coin is the cause of someone giving me a sandwich not by its inherent value but by the agreement upon which the use of money rests, fire is similarly the cause of the produced heat not by its inherent nature but merely by God's decision that heat be produced when fire is present.[63]

The second passage worth considering in this context can be found in Peter's discussion and rebuttal of the Inherent Power Theory, in particular Aquinas's position:

> I argue against him [i.e., Aquinas] with a single argument:... because a position that posits a plurality without necessity, is irrational.... And just as when following natural reason, nothing is to be posited unless natural reason requires it, similarly, following faith, nothing is to be posited unless the truth of faith requires it. But it is neither by natural reason nor by the truth of faith that the aforesaid opinion posits the sacrament of the New Law as effective cause of grace.... Therefore, the aforesaid opinion is irrational (*Sent.* IV.1.1).[64]

The argument starts with the principle of parsimony, which Peter applies to Inherent Power Theory of sacramental causation. According to Peter, this theory violates the principle, since the same grace can be explained without positing in the sacraments any proper power and causal efficacy whatsoever—as Peter's own account of sacraments as *sine qua non* causes shows.[65] The argument is interesting because although Peter does not take the further step, the same principle could be applied in non-sacramental cases as well. If we can save all the phenomena by positing no causal agency of created things, then it seems that the explanation that posits both God's causal power and created causal power is irrational if no further considerations are present.

All in all, both Ockham and Peter of Ailly think, and argue for the claim explicitly, that sacraments are *sine qua non* causes of grace. While the primary concern for Scotus and Auriol was to distinguish these causes from accidental ones, for Ockham and Peter of Ailly it is to distinguish them from *per se* causes, and it is in this context where they develop the "standard" view: *sine qua non* causes are joined to their effects by a voluntary agent, whereas *per se* causes are joined to their effects by their nature. While in Ockham there is no serious doubt about whether there are *per se* causes in the created world,[66] Peter considers that possibility more seriously. If one adopts the strongest possible reading of Peter's rather ambiguous passage, it might seem that although he was quite explicit about making a distinction between *per se* and *sine qua non* causes, at various points he had

63. *Who* exactly does the production is, of course, a further question. It is consistent with even the most radical reading of Peter's passage that the production be done by the fire (in which case Peter would be at most a "second-order" occasionalist); Biel, however, will place that in God's hands as well, as will be seen below.

64. "Arguo contra eam unica ratione:... quia illa positio est irrationabilis que ponit pluralitatem sine necessitatem.... Et sicut sequendo rationem naturalem nihil est ponendum nisi quod ratio naturalis concludit, ita sequendo fidem nihil est ponendum nisi quod veritas fidei convincit. Sed predicta opinio nec ex ratione naturali nec ex veritate fidei cogitur ponere sacramenta legis nove esse causas effectivas gratie modo superius declarato, ut in sequentibus patebit.... Igitur predicta opinio est irrationabilis, et per consequens conclusio vera" (Strasbourg ed., fol. 31va).

65. Auriol seems to be the only one of the earlier considered authors who employs a similar argument in this context, arguing that whatever can be explained by fewer divine institutions, should not be explained by more numerous ones (*Sent.* IV.1.2; Rome ed., 13bA).

66. I have intentionally disregarded here the epistemological problem, which troubled interpreters for a long time, i.e., how much Ockham thinks we can *know* about the *per se* causal relation. For some references, see footnote 46 above; see also Adams 1979; and Courtenay 1973b.

endorsed all the premises of an argument that would lead to the denial of this distinction, or at least to the absence of *per se* causes in the created realm.

Section 4. Discontents Return: The Elimination of the Distinction

The perhaps first thinker who explicitly denies the distinction between *per se* and *sine qua non* causes is Gabriel Biel,[67] whose treatment of the Sacramental Problem both strongly resembles and strongly differs from Ockham's and Peter of Ailly's. Just like his predecessors, Biel defines sacraments as "efficacious and certain signs of grace" (*Coll.* IV.1.1.1.1 (Werbeck ed., 5)), and thinks that sacraments are causes in the sense that God has so instituted them that whenever they are posited in a well-disposed recipient, grace is produced.[68] Also just like his predecessors, he rejects the Inherent Powers Theory, and just like Peter of Ailly, argues against it from the principle of parsimony.[69] Again, just like Peter, Biel draws no further conclusion from his parsimony argument, even though it is difficult to see what would make a salient difference between sacramental and natural efficient causation in this context.

Where Biel differs from his predecessors is not so much his treatment of sacraments proper, but his discussion of *sine qua non* causes within this treatment. First, Biel spends almost no effort on distinguishing *sine qua non* from accidental causes, which was a major concern for Scotus and Auriol and somewhat less of a concern already for Ockham and Peter. Second, in sharp contrast to Scotus, Ockham, and Peter of Ailly, Biel explicitly endorses what I will call the *No Distinction Thesis* (*NDT*): that "[the] division of causes into proper and *sine qua non* causes does not seem to hold" (*Coll.* IV.1.1.1.1.3).[70] As was seen above, Auriol thinks that something close to this claim is true. But while according to Auriol, *sine qua non* causes are *per se* causes because every cause is, either directly or indirectly, a *per se* cause, Biel understands the claim in the opposite way: every *per se* cause is a *sine qua non* cause, in the sense specified by Ockham and Peter of Ailly.

As was seen above, Ockham and Peter distinguishes proper and *sine qua non* causes on the ground that the former are joined to their effect by their causal powers, while the latter are joined to their effect by someone's will. Biel calls this distinction into question by first arguing that proper causes do not act by an inhering causal power either, and then by showing that every cause acts merely by the divine will.

Concerning the first, Biel presents the argument in an answer to an objection. According to that objection, there is a meaningful distinction between proper and *sine qua non* causes, because "a natural cause has in itself a natural power, by which it produces the effect" (*Coll.* IV.1.1.3),[71] while a *sine qua non* cause does not. To respond to this objection and maintain the No Distinction Thesis, Biel argues that positing causal powers as distinct from essences leads to a vicious infinite regress:

67. Biel's critical reception has mostly focused on his relationship to Luther; see, among others, Oberman 1963; Biechler 1970; Desharnais 1978; and Morerod 2000. Concerning his theory of causation, Alfred Freddoso has called him a "representative occasionalist" of the Middle Ages (Freddoso 1988, 75), while more recently Fred Ablondi and Aaron Simmons have argued that "Biel is best understood as giving an *occasionalist defense*... rather than an *occasionalist theodicy*" (Ablondi and Simmons 2011, 160, emphasis in the original). See also Perler and Rudolph 2000, 189–200.

68. Cf. *Coll.* IV.1.1 (Werbeck ed., 19). Ablondi and Simmons claim that "in claiming the sacraments are merely sine qua non causes, Biel is very much outside the mainstream" (Ablondi and Simmons 2011, 157). However, this is clearly not the case, as Biel—at least in this respect—squarely fits into the Franciscan tradition as exemplified above by Scotus, Auriol, and Ockham (and Peter of Ailly, who although not a Franciscan, also continues this tradition).

69. Cf. *Coll.* IV.1.1.1.2 (Werbeck ed., 26).

70. "Et ideo illa distinctio causae in causam proprie et causam sine qua non non videtur subsistere" (Werbeck ed., 17).

71. "[C]ausa naturalis habet in se virtutem naturalem, per quam producit effectum" (Werbeck ed., 32).

> Not every natural cause acts by the power that exists in it and is really distinct from it. Which I show: Take (as example for a cause) heat A. Now I ask whether A, when heats, acts by itself or by some power added to it. If the first, then we have what we wanted to show [i.e., there is no power by which the heat acts]. If the second, then I ask about that power, whether it acts by itself or by something else. And thus there will be a regress to infinity of actually existing things, which is impossible, or there will be a power that acts by itself and not by something added to it. And that will be the most proper cause. Therefore, there is no difference [between proper and *sine qua non* causes] (*Coll.* IV.1.1.1.3).[72]

If one maintains that agents act by their causal powers that are not identical to them, then the further question could be asked about these powers: by what do *they* act? According to Biel's argument, if the powers act just by themselves, then these powers were not necessary to posit in the first place. But if they act by something else, a further power, then the regress would be generated.[73] As Biel concludes, there is no difference between a natural cause and the power by which it acts, and thus the objection that would base the standard distinction between proper and *sine qua non* causes on this difference, does not hold.[74]

Second, Biel argues that what we generally take to be proper causes act by the divine will in the same way as *sine qua non* causes do. The argument is rather long, but is worth quoting in its entirety:

> [1] The power to cause some effect is in the first cause fully and sufficiently, and is in no created thing fully and sufficiently, unless inasmuch as [2] the first cause... freely and contingently willed and determined himself that upon the presence of this thing he will produce that effect. For instance: that fire or heat is the cause of heat, is for this reason, that God determined himself so that upon the presence of the heat he wills to produce the heat in the other subject. Thus, the heat is not a cause of heat by any other power existing in it.... And if God did not determine it this way, then the same heat... would be heat and would not be the cause of heat. [3] Whence God produces nothing by the secondary cause that he does not produce principally in the same way and not less as if only he produced it.... [4] And therefore this division of causes into proper and *sine qua non* causes does not seem to hold (*Coll.* IV.1.1.1.1.3).[75]

72. "Non omnis causa naturalis agit per virtutem sibi inexistentem a se realiter distinctam. Quod probo: Signo unam (exempli causa) A calorem. Quaero, an A calefaciendo agat per se vel per virtutem superadditam. Si primum, habetur propositum, quod agens naturale non agit per virtutem sibi inexistentem. Si secundum, quaero de illa virtute, utrum agat per se vel per aliam. Et erit sic processus in infinitum rerum actu existentium, quod est impossibile, aut dabitur una virtus, quae seipsa, non per superadditam agit. Et illa erit propriissima causa. Ergo illa dierentia nulla" (Werbeck ed., 32).

73. Interestingly, Biel does not seem to take into account the distinction, usual in earlier authors, between *id quod* and *id quo* causes: the former would stand for the fire while the latter for its heating power. Since traditionally the two were not causes in the very same sense, the regress would not get off the ground.

74. It is intersting to note that this argument is also not new to Biel, as it was commonly used to refute the thesis that there is a distinction between the soul and its powers. For an analysis of the argument especially in Henry of Gent's *Quodlibet* III.14, see Wood 2011, especially p. 605. Biel, however, uses again the argument for a new purpose—to defend the No Distinction Thesis in general.

75. "Virtus causandi effectum quemcumque est plene et sufficienter in prima causa et in nulla re creata sufficienter et plene, nisi quatenus ipsa causa prima... libere et contingenter voluit et se determinavit, quod ad praesentiam talis rei vult producere talem effectum. Gratia exempli: Quod ignis sive calor est causa caloris, ex eo est, quia determinavit se Deus, quod ad praesentiam caloris vult producere calorem in alio subiecto. Nec sic calor habet esse causam caloris per aliquam aliam virtutem sibi inexistentem....

Claim [1] of the argument is quite generally accepted by medieval thinkers, who, with a few exceptions, hold that God's concurring activity is needed in order to bring about any causal effect in the created world.[76] Claim [2], that it is only by the divine will that there is a conjunction between fire and heat, is similar to what was endorsed by Peter of Ailly, mostly ambiguously. Biel, however, is explicit: that by divine ordinance, whenever fire is present, *God* produces the heat in the properly disposed patient, and we experience the correlation of secondary causes and their effects because God had decided that whenever one is present, the other will be produced. As Biel further elaborates, God's decision to correlate fire with heat is a contingent one: fire could remain the very same fire and "produce" coldness, were God to decide that way.[77] Claim [3] makes the further remark that God's production of heat when fire is present and when it is absent is the same production; it is not to be imagined that fire somehow augments God's action when bringing about the heat.[78] Finally, claim [4] concludes that the common distinction between proper and *sine qua non* efficient causes is unfounded. At most what we can say distinguishes proper and *sine qua non* causes, Biel notes, is the time of the divine decree: in the former, the institution happened at the creation of the world, while in the latter it happened (or will happen) sometime later.

Biel is aware that the most likely medieval rejoinder to his view would be to claim that we do experience that things in the world act. The epistemology of causation is, of course, a highly contentious issue in many medieval authors *post* Ockham, which I cannot discuss in this paper. As is well known, Ockham already holds that we have rather restricted knowledge of the causal relation; Biel, however, claims that of the causal relation proper, we have none.

Consider, Biel argues, the example of the consecrated chalice.[79] According to theological consensus with some Aristotelian slant, after the Eucharistic chalice had been consecrated, it is not the substance of the wine but the substance of Christ's blood that lies under the sensible accidents. Now suppose that you bring a consecrated chalice to the fire and warm its content. What happens in that case, metaphysically speaking? Surely not that fire would induce a new accident of heat in the consecrated wine. Fire can only induce heat in a suitably disposed patient, where 'suitably disposed' also implies that its matter is capable of receiving that heat. However, the blood of Christ is not such a patient! It is not the kind of matter from which a new accident of heat could be educed, and thus the fire,

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Et si non sic determinasset [Deus], calor idem... esset calor et non esset causa caloris. Unde Deus nihil facit per causam secundam, quin illud faciat per seipsum aeque principaliter et non minus quam si solus faceret.... Et ideo illa distinctio causae in causam proprie et causam sine qua non non videtur subsistere" (Werbeck ed., 16–17).

76. For an overview, see, e.g., Freddoso 1994.

77. As was seen above, Peter of Ailly may have endorsed this claim, even though it would not have been accepted by most earlier authors (see above, footnote 62). While, as documented by Nadler 1996, the usual argument for occasionalism is based on the lack of necessary connection between what we perceive as causes and effects in the physical world, Biel's argument is based on the lack of necessary connection between agents and their causal powers.

78. This is in sharp contrast with most of the earlier accounts, including Scotus's, Auriol's, Ockham's, and Peter of Ailly's, according to whom even though God could produce every secondary effect directly, God does not do so when acting through secondary causes. Ockham uses the analogy of a strong man helping a weak one carrying a heavy weight; even though the strong man could carry it along, he chooses not to do so (*Rep.* II.3–4; *OTh* V: 72). Auriol is somewhat of an outlier in this respect, since he seems to think that God's causal activity is not even needed in the usual causal interactions of the created world (cf. *Sent.* II.38.1.1).

79. The example is not new to Biel; it would usually give the basis of an objection in discussions of the question whether a creature could create. See, e.g., Ockham, *Quodlibetal questions*, II.9, dub. 4 (*OTh* IX: 152). Biel seems to be the first one, however, who uses it to undermine our trust in the senses regarding causation. For Biel, see *Coll.* IV.1.1.1.3 (Werbeck ed., 30).

despite all the appearances, did not produce the heat; the heat was produced, *ex nihilo*, by God alone. Thus, it can be argued that our senses are insufficient to inform us about the origin of an action, and that the position according to which every cause is a mere *sine qua non* cause, does not contradict any experience:

> To the senses it appears that upon the presence of the fire heat follows. And we do not deny this. But whether that heat follows by the action of the fire or by that of God alone, does not appear to the senses. And because of this, the one who denies the action of the fire, does not deny anything that appears to the senses (*Coll.* IV.1.1.1.3).[80]

All in all, Biel thinks that the No Distinction Thesis holds: there is no distinction between proper and *sine qua non* causes. His argumentation borrows many elements from earlier thinkers, and indeed he goes as far as to claim that he agrees with all his predecessors.[81] Nevertheless, as was seen above, neither Ockham, nor Peter of Ailly endorses the *NDT*; in fact, they explicitly argue against it. Thus, in the footsteps of the tradition spanning from Scotus through Ockham to Peter of Ailly, Biel seems to be the first one to think that it is only God who is causally active in the world.

Conclusion: From *Sine qua non* to Occasional Causes

As this brief and admittedly selective overview shows, the medieval history of *sine qua non* causation is a complex one. It was not obvious, for medieval authors, that there *are* such *sine qua non* causes; it was also not obvious that if there are, what explanatory role they can take on or where they belong in the Aristotelian framework. As the above considerations show, the theological problem of sacramental causation provided fertile ground for discussing *sine qua non* causes as a genuine causal category, since according to theological consensus, while sacraments are not full-fledged proper causes, they cannot be merely accidental causes either. Thus, it is this Sacramental Problem that prompts Scotus to argue that *sine qua non* causes and their effects constitute a form of essential dependence, and Auriol to argue that *sine qua non* causes are indirect *per se* causes. It is also in this context that Ockham and Peter of Ailly express the standard view, distinguishing *per se* and *sine qua non* causes based whether natures or voluntary agents ground their connection to their effects. And it is, again, the context of sacramental causation that gives Gabriel Biel the opportunity to argue, borrowing elements from earlier authors, that there is no distinction between proper and *sine qua non* causes at all, because both are grounded in the divine will alone.[82]

While it falls beyond the scope of this paper to dive into the early modern occasionalist debates, perhaps it is worth pausing here to very briefly consider whether Biel would be regarded as an occasionalist for endorsing the No Distinction Thesis. Are *sine qua non*

80. "Ad sensum apparet quod ad presentiam ignis incipit esse calor. Et hoc non negatur. Sed an ille calor incipiat per actionem ignis vel solius Dei, non apparet ad sensum. Et per hoc negans actionem ignis nihil negat apparens ad sensum" (Werbeck ed., 31).

81. This is partly why Ablondi and Simmons think that Biel ultimately did not endorse the view he had put forward. This, however, seems dubious. Biel does not express any concern with any part of the arguments for the *NDT*, and claims that he agrees with his predecessors because "the terms are used *ad placitum*" and "it was pleasing to the doctors to talk the way they did" (*Coll.* IV.1.1.1.3; Webeck ed., 36).

82. There is some textual evidence for concrete historical influence between some of these authors (Peter of Ailly quotes Ockham verbatim; we know that Biel studied in Tübingen, which was an important Ockhamist center of his time; and later, Malebranche cites both Peter of Ailly and Biel by name (Malebranche 1997, 680)), nevertheless, the aim here was more philosophical than historical.

causes occasional causes, after all?[83] The answer seems to be 'yes'. First, as an initial attempt, one may characterize occasional causation as a relation that "exists when one thing or state of affairs brings about an effect by inducing. . . another thing to exercise its own efficient causal power" (Nadler 2010, 32). The standard medieval understanding of *sine qua non* causation, as was seen above, shares this characteristic. Both occasional and *sine qua non* causes answer the same why-question as proper efficient causes do, falling therefore in the broad Aristotelian category of efficient causes (as distinguished from formal, material, and final ones). Moreover, both occasional and *sine qua non* causes pick out a causal relation that "does not lie in *in rerum natura*" (Nadler 2010, 37, emphasis in the original). (Where does it lie then? For occasional causes, at least according to Nadler, "there is no clear answer to [the] question"; for the standard medieval understanding, as we have seen, it lies in a voluntary agent's institution that assigns to certain things the role of efficacious signs.) Finally, both occasional and *sine qua non* causation pick out a broader notion than 'occasionalism' alone indicates. Occasional causation is any kind of causation that shows the above characteristics; while occasionalism maintains that the voluntary agent in question is God, and that it is God alone who exercises causal power in every instance of efficient causation. As was seen above, *sine qua non* causation is also a general concept: it can apply to the king and the lead coin just as well as to God and created substances. This seems to indicate that the later medieval understanding of *sine qua non* causes is indeed akin to the early modern notion of occasional causes, and thus when Biel endorses the No Distinction Thesis, he is at least approximating the view that will later be called occasionalism.[84]

Be that as it may, the medieval history of *sine qua non* causes tells a story about how theological doctrines influenced metaphysical discussion especially in the fourteenth century. We have seen that dealing with the theological problem of how sacraments cause grace in a way that is neither proper nor accidental, thinkers formulated the seemingly innocuous idea that sacraments cause grace as *sine qua non* causes do. Following this thread in detail from Scotus through Auriol, Ockham, and Peter of Ailly to Gabriel Biel, we have also seen how this idea led, eventually, to question the causal efficacy of created natures, and Biel to claim, without too much further ado, that someone's uttering of certain words could be the proper cause of rain, were God to decide that way.

83. Medieval thinkers, at least in the thirteenth and early fourteenth century, do not seem to use the phrase of *causa occasionalis*. Instead, *occasionaliter* is usually used a synonym for *accidentaliter* or *indirecte*. But the question here is not terminological but rather philosophical.

84. This mostly agrees with the conclusion of Perler and Rudolph 2000.

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