

FALLEN INTO NATURE

Augustine, Melanchthon and the relation between original sin and nature- knowledge

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Chapter 1: introduction – question and approach

1.1 The scientific revolution and religiosity

In our world, science is everywhere. With the historical awareness that this has not always been the case – that the form, content and impact of science as it is nowadays have a history¹ – the question immediately arises how to explain the position of science in our time. Of course, there is no single locus in history where the answer to this question can be found: the research institutions and paradigms associated with science have taken a shape that we recognize as modern mostly in the last two centuries, a reason for some scholars to argue that there simply is no history of ‘science’ before the nineteenth century.²

Intuition rebels against the implication that Aristotle and Archimedes, Galilei and Newton are not part of the history of science, but of course this is precisely the point of the argument: that most of the canonical heroes of science were actually playing a game radically different from ours.³ Even so, in the end there is no denying that there were many aspects of continuity between these games. The least we can say – and when building towards a question it may be safe to proceed from these minimal claims that are most broadly agreed upon – is that if science has only a short history, at least it has a very long, complex, interesting and hugely relevant *prehistory*.

As a defining moment in this prehistory stands the scientific revolution that took place somewhere between the latter part of the sixteenth century and the end of the seventeenth.⁴ The heterogeneity of the developments in the study of nature in these centuries notwithstanding, the unifying label ‘scientific revolution’ is not misleading: apart from the fact that the seventeenth century saw a historically exceptional progress in the understanding of nature,⁵ the period saw a general change in intellectual attitudes towards the study of nature.⁶ These aspects of the scientific revolution – the legitimacy as an intellectual occupation that the study of nature eventually managed to receive and the new ways in which it was undertaken – were an indispensable requirement for the sustained development of science in later centuries;⁷ and as primarily cultural attitudes, they are objects of study accessible to the historian.

What should be emphasized about these attitudes is that they preceded the Enlightenment: the scientific revolution of early modern Europe took off independently from the strong belief in human reason and autonomy that became prominent in the eighteenth century. It took place in a very religious, decidedly Christian Europe, and had to be perceived to be in harmony with the core religious values of the culture of which it was to become part.

Though there was of course the occasional stand-off between the forces of religious authority and those of scientific change,⁸ it seems reasonable to conclude that on the balance, the scientific revolution *was* indeed honestly perceived (especially by those involved in it) to be in a relation of mutual agreement and support with Christian religion and theology. Isaac Newton famously devoted the larger part of his time not to optics or gravity but to biblical theology; more importantly, to himself his

¹ I am abstaining here from questions pertaining to the contingency of that history. Since science, more than most other cultural activities, refers to an external world, it is not obvious that its history can be written in the same way as that of any other human activity. For current purposes, however, it is not necessary to take a position in the philosophical debate to what extent the content of science is historically determined or contingent; here only the minimal historical awareness is required, that things have not always been as they are now.

² Cunningham(1988); *cf.* also Cunningham(1993); Harrison(2010) 24-30.

³ Cunningham(1988).

⁴ On the question of periodization, *cf.* Rabb(2007).

⁵ Attempts to define the scientific revolution historically can be found in Harrison(2007b); Shea(2007), though the latter’s argument seems to be restricted to the simple attempt to name as many novelties as possible.

⁶ Harrison(2007).

⁷ Cohen(2010) 426-440 on the legitimacy problems of the new nature-knowledge in the seventeenth century.

⁸ *Ibid.*, 417-416. *Cf.* also Châtellier(2008).

occupation with these different topics did not require an act of artificial compartmentalization or any kind of repression of cognitive dissonance. Rather, it has been convincingly argued that in several ways, rather than playing a counterproductive or indifferent role, Newton's religious views positively influenced his scientific endeavors.⁹

Likewise for Robert Boyle, natural science was in a self-evident harmony with Christianity: though natural philosophy was not supposed to occupy itself with the explanation of metaphysical or religious questions (since its expertise was limited to the material world) God did reveal Himself in nature in his goodness, wisdom and power, so that affinity with nature would increase the admiration of the scientist for the Creator and Redeemer. What is more, the Christian argument against the self-sufficiency of reason worked at once to support a role for special revelation in religion and a role for empiricism in science.¹⁰ Again we see a relation of mutual support between the two.

Do these cases stand for something general? Does the fact that these two giants of seventeenth-century natural philosophy were devout Christians, whose piety was relevant to their scientific work, signify that there was something peculiar to Christianity – something that made the Christian culture of early modern Europe an especially fertile ground for the scientific revolution as we know it? Should we place the intellectual roots of the scientific revolution not only or even primarily in the classical tradition to which Renaissance Europe was heir, but in the Christian tradition with which it primarily identified itself?

Of course these traditions were not mutually exclusive, and it is not helpful to suggest that the answer must lie in either Athens or Jerusalem.¹¹ Yet, phrased in a more open way the question remains relevant: to what extent do we have to view the specific religious culture and Christian world-view of early modern Europe as a key factor in the explanation of the scientific revolution?¹² The argument in favor of biblical Christianity has been made cogently by Reijer Hooykaas: according to him, the Christian holy book was a force towards the 'de-deification' of nature (which therefore became open to explanation through mechanical reductionism),¹³ towards a relative humility for human reason (which removed the speculative rationalism that stood in the way of the rational empiricism associated with the new science),¹⁴ and towards a higher valuation of physical work (which led to stronger ties between contemplative philosophical work and artisanal practice).¹⁵

Other and similar links between Christian theology and the scientific revolution have been constructed by Peter Harrison, who focuses especially on the dominance of an Augustinian anthropology with a strong emphasis on the Fall and original sin.¹⁶ This pessimism about man led to a rethinking of epistemology; as the Aristotelian optimism about human capacity for unproblematic under-

⁹ E.g. Rogers(1999); Force(2004).

¹⁰ Hooykaas(1997).

¹¹ Which is why Efron(2009) does not have a strong point against the 'myth' that 'Christianity gave birth to modern science' when he says that Christianity was not the *only* crucial ingredient in the rise of modern science (ibid., 79-86. Mono-causality is never a good idea with respect to complex historical concepts, but that does not mean that Christianity cannot be regarded as a crucial force behind the scientific revolution – nor can this thesis be accused, as Efron does (ibid., 87-88), of ascribing moral superiority to Christianity.

¹² Blair(2007) resists the thesis that there is a relation between especially Protestantism and the rise of science for theoretical reasons: the essentialist view of religious movements that it implies, and the potential for conflict between Protestantism and science that the creationist movement has demonstrated (ibid., 431-433). The first point is well taken, though it does not undermine *a priori* any attempt to relate science to the Reformation; the second is surprisingly anachronistic – the opinion that a 20th-century conflict between Protestantism and religion precludes their having a generally mutually favorable relation in early modern Europe seems to depend on a rather essentialist notion of Protestantism.

¹³ Hooykaas(1972) 1-28.

¹⁴ Ibid., 29-53.

¹⁵ Ibid., 75-97.

¹⁶ Harrison(2007a) 52-88.

standing was abandoned, intellectuals sought for other sources of certainty.¹⁷ The human propensity to err had to be systematically incorporated in the project of knowledge, and this, according to Harrison, was the achievement of Francis Bacon: to proceed from an Augustinian emphasis on the corruption of human nature to the understanding that external corrections and restrictions were necessary, and that these were to be found in instruments and experimentation.¹⁸

Harrison has – and this is only to be praised – explicitly formulated his account as a causal thesis: it was a revival of an Augustinian view of original sin that must be viewed as the historical explanation for the rise of the experimental method.¹⁹ To press his point all the more strongly, he has presented it as a substitute for another thesis that is conventionally invoked to relate Christian theology to the scientific revolution: the supposed affinity between voluntarism and empiricism that had been developed by Michael B. Foster in 1934.

Foster, in an article explicitly setting out to identify the source of the ‘non-Greek’ elements in the philosophy of nature crucial to the characteristics of modern science, and being skeptical about the epistemological claims of early modern rationalism and empiricism, sought to demonstrate to what extent both major philosophical attitudes were (until Kant) still carried by Christian revelation.²⁰ Here lay also the reason why modern science possessed an empirical element that the Greek (Aristotelian) attempt at science had lacked. Aristotelian knowledge of nature proceeded from the assumption that intellectual knowledge of the form of an object was possible and constituted knowledge of its essence; the Christian doctrine of creation however, according to Foster, did not ascribe a purpose to creation – that is to say, God did not have a form in view that could be understood in isolation from the embodied creation that he made, since in His utter freedom His act of creation could not be seen as subordinated to a theoretical activity, a ‘plan’ or an ‘end’.²¹

Put succinctly, the thesis states that an emphasis on God’s arbitrary freedom to act above His intellect tends to go together with an empiricist mentality, since it affirms that the creation as God decided to make it can never be known on an *a priori* basis through rational understanding. In terms familiar to historians, voluntarism insists upon the radical *contingency* of creation as opposed to its intellectually accessible necessity, and the contingent cannot be known through reason alone.²² Hence empiricism.²³

Harrison has attacked this thesis for several reasons: that voluntarism and rationalism went together in some canonical thinkers, notably Descartes (who thought that the necessary truths accessible to reason were also dependent upon God’s arbitrary will);²⁴ that the ‘contingency’ of which the thesis speaks is generally poorly defined and tends to conflate voluntarism with occasionalism (the belief that God is the immediate cause of every event, at the cost of secondary causation), which in turn has no special affinity with empiricism and strictly spoken even reduces the room for contingen-

¹⁷ Ibid., 89-138.

¹⁸ Ibid., 139-185.

¹⁹ Harrison(2002a) 256-259.

²⁰ Foster(1934) 446-452.

²¹ Ibid., esp. 461-463.

²² Ibid., 463-465; cf. Harrison(2002b) 63-64.

²³ Which is not to say that Foster’s view of Christian doctrine amounts to a pure empiricism; cf. Foster 465-468. Links between divine voluntarism and science have also been established by Pierre Duhem and Reijer Hooykaas: cf. Cohen(1994) 260-267 for the historiography on this. One focal point of interpretation is the condemnation at Paris in 1277 of a range of Aristotelian opinions on *e.g.* the impossibility of a vacuum, which were taken to deny divine omnipotence in favor of intellectual necessity. Cf. Grant(1974).

²⁴ Harrison(2002b) 64-67.

cy;²⁵ and that in practice, experimental philosophers did not have a notion of God's will as unconcerned with goodness and wisdom.²⁶

These are intelligent corrections to what may otherwise indeed turn out to be an overenthusiastic association of divine creative autonomy with unpredictability; yet whether this critique actually undermines the central point of the thesis – that the less God conforms his actions to something accessible to pure reason, the more important alternative and external sources of knowledge become – may be doubted.²⁷ But perhaps Harrison's own thesis is, in practice, not so much in competition with the voluntarism-thesis as in harmony. After all, the accessibility of God's 'plan' or (in the Aristotelian terms used by Foster in his article) of the 'form' as the essence of nature, is not only dependent on the nature of the divine will and intellect but also, and perhaps more importantly, on the capacities of the knowing subject.²⁸ The view may be held, for example, that God has created the world according to a rational plan, but that the limitedness of our own rational capacities precludes an aprioristic understanding of this plan – which brings us right back to Harrison's own thesis about original sin.

1.2 Question and methodological considerations

The extraordinarily compelling way in which Harrison argues for the role of Augustinian theological anthropology in the foundations of early modern natural philosophy will serve presently as a rhetorical stepping stone towards the formulation of the leading question of this essay. After all, the reasoning – man's internal faculties are weak and insufficient, and therefore external input is necessary – has a cogency to it that provides it with a certain general validity: the dominance of such an anthropology in early modern Protestantism and (less) Catholicism serves to explain the turn towards experimentalism because the two have a kind of intrinsic relation.²⁹

But at this point a question may arise, namely the question of timing. If there is such a strong relation between the Augustinian pessimistic view of man and the major characteristics of early modern science, why did this not develop earlier? Protestantism may have argued for a pessimistic anthropology compared to views dominant in the later middle ages;³⁰ but had an Augustinian anthropology never been prominent before, if not in medieval scholasticism then perhaps in early Christianity? Had not at least *Augustine* held an Augustinian anthropology?

Of course the answer even to that last question could well be negative, depending on what Augustinianism meant in the sixteenth century. But on the primary issue where the anthropological pessimism of the Reformation is usually located – the question of the ability of humans to take initiative and contribute to their own salvation – Augustine's views were decidedly Augustinian.³¹ At least, then, there is a paradox here: if we find in Augustine's thought a major feature of Protestant theology

²⁵ Ibid., 67-70. After all, if everything is directly dependent on the immutable divine will, there is not much room for nature to deviate from eternal necessity, provided that the divine will is not itself too capricious (on which *cf.* *ibid.*, 70-76).

²⁶ Harrison(2002b) 76-78.

²⁷ *Cf.* the discussion between Henry(2009) and Harrison(2009a). Henry convincingly points to the debate between Clarke and Leibniz as a controversy that can hardly be interpreted without an understanding of the implications of voluntarism.

²⁸ *Cf.* also Henry(2009) 99-104.

²⁹ Harrison(2002a) 249-254; Harrison(2007a) 245-258.

³⁰ For the distinction within late medieval nominalism between the *via moderna* and the Augustinian view of justification, *cf.* McGrath(1988) 53-64.

³¹ Here Augustine's views and Luther's 'Augustinian' views seem to converge to the point where theologian and Reformation historian Alister McGrath has denied any significant creativity to Luther's *Turnerlebnis*: "Luther's ideas may have been new to him, but they were hardly a new discovery for Christianity! Luther's 'discovery' is really a 'rediscovery' or a 'reappropriation' of the insights of Augustine" (McGrath(1988) 75). For a sketch of Luther's own assessment of the authority of Augustine, *cf.* Hendrix(2007) 7-8.

that is supposed to have certain implications for epistemology which Augustine himself, however, did *not* share, we have something to explain.

For on a methodologically normative note, I believe that it is a defining characteristic of science that it has the ambition to *explain*, and to justify its explanations. To explain I mean here in the broadest sense of the word: to answer whatever question about anything in whatever way. There is no reason artificially to close the immense substantial and methodological differences between different academic disciplines, but in this weakest sense, there is a ‘unity of science’ in which historical science has its place: that it strives to postulate connections between observed phenomena and tries to justify these, and that the worth of its particular theories can be judged by the comprehensiveness of their explanations or the strength of their justification.³²

Harrison’s thesis is attractive because it is both comprehensive and well supported, and because it dares to isolate a rather specific intellectual factor and use it for causal explanation by means of a relation that can be understood in itself – in this case because of the apparent rational coherence of a certain anthropology and a certain attitude towards nature. In being so unambiguous, Harrison also creates the opportunity to identify contrasting cases: pointing at a case where the relation he proposes seems absent does not in itself falsify his thesis, but it does invite a closer look – what, precisely, is different here?

Given that fifth-century North-Africa probably differs in most respects from sixteenth-century Europe, a better way of phrasing this question is: what are the crucial differences here? Answering this question is what I consider to be the role of a more or less systematic historical comparison: after identifying the apparent commonalities and differences of historical entities as defined and conceptualized in a particular way, it may proceed to a constructive criticism and refining of the concepts and their supposed relations by directing the attention towards factors to which the original theory may have had a blind spot. I explicitly put forward this use of comparison as an adaption of (and hence an alternative for) two other coherent views: first, that the value of comparison lies primarily in its ability to test and falsify theories, by investigating the correlation of the variables involved in supposed causal relations.³³

I believe that such attempts at falsification are important, but I fear that the complexity of history implies that comparative history defined in this way might suffer from the same weakness as the covering law model: it is fundamentally correct,³⁴ but it is also vulnerable to the distorting influence of context and to the complexity of human behavior. This is especially the case if the historical entities are large (*i.e.* complex) and few, and it is therefore certainly the case if two radically different civilizations are compared. Moreover, doing comparative history defined in terms of simple falsificationism is essentially no different from testing a covering law model: there is no constructive role for the act of comparison as such, and the historian is not so much comparing as augmenting his statistical sample.

This model, in which comparative history in effect means a broadening of the attempt to allow history to shout ‘no’ to a theory (which is in itself a laudable business, I should add, but which is not in fact a genuinely *comparative* approach), is opposed to a second view on the relation between theory and comparative history. According to this view, we must refrain from predetermined conceptualization and theorization. Of course, this does not mean that we have to be naively empiricist and anti-

³² Martin(1989); Martin(1998).

³³ Berger(2003).

³⁴ The positivistic covering law model of historical explanation (as famously defended by Hempel(1942)) has had a bad press in the philosophy of history (for an overview of criticism to it, *cf.* Lorenz, *Constructie van het verleden*, ch.4-5). Martin(1989) gives a reasonable account of why the covering law model is to be discarded as a scientific ideal for historical studies *even though* it is in principle a valid form of explanation.

theoretical, and therefore the conclusion is that patterns must be discerned *in* the historical material, not brought to it predefined.³⁵

I fully subscribe to the epistemic ideal that in the end the patterns we identify in history refer to something in the past, yet I think that the ideal of concept-forming ‘as we go along’³⁶ may be too crude a representation of the interaction of theory and material in comparative history. Even if it is history that (in principle) decides whether a historical argument or narrative is valid or not,³⁷ it is always *our* concepts that are the building blocks of this narrative. This is not a pedantic lesson in basic philosophy of history, for even the most fanatically empiricist historian will agree that in this sense, there is no escaping our own concepts. The point is rather this: that the potential of comparative history (as I see it) lies precisely in allowing us to criticize our own concepts and theories and thereby allowing the historical material to play an active role in shaping and altering our conceptual framework, *provided that we consciously and explicitly use that pre-existing framework* as foundational for our comparison.³⁸

In this case, the framework is the theory, taken very seriously by the current author, that there is a causal relation between certain Christian theological doctrines (notably the Augustinian interpretation of original sin) and core features of science as it develops in the scientific revolution: the comparison is directed by a paradox related to this theory. Whatever the result of the inquiry will be, then, it will not be independent from this theory and it is not meant to be so; but nor is it meant to be an unequivocal testing or falsifying of this theory. The ideal is a reconceptualization and -theoretization of the early modern historical relations between Christian theology and science, proceeding from an explicitly theory-guided comparison.

The question has risen from the paradox that similar or even identical theological views (especially on the meaning of the Fall) went together with very different attitudes towards the study of nature in early modern Protestantism on the one hand and late antique Christianity on the other (though in fact we have only explicitly named Augustine). Whichever the entities of comparison will be, then, it will only be to the point in so far as they correspond to this paradox.

For late antiquity, we have already identified Augustine of Hippo as someone with a strong notion of original sin but with no obvious specific interest in the study of nature – of course this is a point that still has to be developed in the study. For the early modern period, we are looking for someone who subscribed to the strong reformist views on original sin and combined this with a preferably

³⁵ Cohen(2010) xx-xxii. Cohen goes on to assert that this does not mean that his “ongoing process of concept formation and theory building has been inductive only — as if facts could ever speak for themselves. The process has been deductive as well [...] Also, [...] I have found with numerous authors [...] certain fertile conceptualizations that with a little adaptation proved well-suitable for pressing my analyses further.” In this respect, in attacking an inductivist view I must confess myself to be attacking a straw-man; however, Cohen is not entirely clear about how this ‘deductive’ element in his concept-forming can be objectively distinguished from the ‘imposition’ of patterns on history (which he rejects). In his insistence not to “press my causal accounts into pre-set conceptual schemata” (ibid., xxii) he seems less to be making a methodological choice than to be attacking bad history-writing – after all, there is hardly any historian who would proudly boast the Procrustean act of having forced an *unfitting* theory upon his material. The current issue is about the role of theory and concepts in relation to historical comparison (and the question of priority in this regard), and on this issue I sense I am voicing a less inductivist ideology than does Cohen.

³⁶ Cohen(2007) 496.

³⁷ To specify: a narrative can be true or false in the sense that the statements of which it consists can be true or false – I do not believe that it is useful to speak of the ‘referentiality’ of historical narratives *as wholes*, in spite of Lorenz(1998).

³⁸ One of the reasons that I felt so free in criticizing Cohen(2010) for the pragmatist and empiricist self-image that he sketches in the prologue, is that I am convinced that his work is in practice much more theory-guided than the prologue cares to admit: the comparisons made in the book are directed by clear questions and paradoxes, and thus clearly oriented upon existing theoretical frameworks and their improvement.

explicit interest in the study of nature. I have selected Philipp Melanchthon, recognized by Luther as his main partner in the German Reformation,³⁹ as a representative of this combination of attitudes.⁴⁰

This latter choice is more ‘random’ than it might seem: it could be suggested that Melanchthon’s close ties with Luther provide him almost automatically with the status of a spokesperson for the Reformation – being one of the people who defined it, after all, his views could be taken as authoritative for what it was. However, to take Luther and his immediate circle as a ‘point zero’ of Reformation thought is to view the Reformation era in a too simplistic manner. Recent scholarship tends to emphasize the diversity and pluralism of the Reformation,⁴¹ as well as its continuity with and development against the background of late medieval theology;⁴² this broadening of the concept of reformative movements grants them a certain independence from the specific theological views of Luther and his fellows. Of course, this is not to deny that Melanchthon’s arms reached far,⁴³ and that his influence gives his thought a wider historical importance. However, instead of worrying here about how unique or representative of their time both our theologians are, we will study them without systematic attention to this question.

Of course, what we actually will be studying are not the living theologians or their disembodied thoughts, but their *texts*, and especially in types of historiography where the argument is based solely on texts, as in the intellectual history that I am writing here, a few words on the theoretical implications of this are in order. The primary problem is, of course, that of interpretation: the idea has grown that it is impossible to assign a fixed meaning to a text not only in practice but in principle. This idea is partly dependent on the premise that authorial intent does not exhaust the meaning of a text or is even insignificant;⁴⁴ that the ‘authority’ in interpretation lies not with the state of mind of the author but with the state of mind of the reader, whose engagement with the text does moreover not significantly constrain him, but serves rather to activate him and to form his own ideas when reading it, thereby spawning a new interpretation which then, by definition, is a new ‘meaning’ of the text. In this definition, of course, the potential number of meanings that a text can have is indefinitely large.

This may very well be a fruitful and legitimate way of viewing textual interpretation for some purposes; in no way is it illicit to read meanings into a work of literature, for example, even if these meanings were almost certainly not part of the author’s intentions – it allows a work to ‘speak’ to a time and audience to which it could not be intended to speak. But this is only a laudable business in so far as the aims of it are themselves present-oriented; a historian, by most definitions, does try to learn and say something about the past, and necessarily has to try to work his way beyond the text to an interpretation that, though not exclusively taking as authoritative the conscious intentions of the author (for that would be presupposing that he had accurately identified all his motivations for composing the text in the way he did), at least focuses on the state of affairs that has been causally responsible for the coming-into-being of the text.⁴⁵

What the crucial aspects of these state of affairs were, is an empirical question which may, moreover, well turn out to be unsolvable in many cases. But it is not unlikely that an author, especially

³⁹ Greschat(2010) 41-43.

⁴⁰ Maurer(1962) 199-205 warns against overestimation of Melanchthon’s special interest in natural science: the humanistic interest in science in Wittenberg predates him, and in Melanchthon’s thought, too, it is directly related to the medieval heritage. I do not want to deny this, yet in the argument that follows I will of course try to show how humanism and especially Lutheran theology provide additional motivations for interest in nature.

⁴¹ Bagchi(2004a).

⁴² Janz(2004).

⁴³ Kusakawa(2004) 65-67.

⁴⁴ Barthes(1968) is the classical argument against an image of literary writing that is “tyranniquement centrée sur l’auteur” (ibid., 41).

⁴⁵ Assuming that this is possible: Brown(2002) claims that it is not. Bevir(2002) is an argument for intentionalism (*i.e.* the appeal to intentions located outside the text) compatible with the postfoundational principles of the theory-ladenness and language-embeddedness of experience and thought.

of philosophical or educational texts, wrote down certain sentences because he believed in the ideas expressed by these sentences, and believed that these ideas were worth expressing. For instance: if a Christian author wrote down that “God is the creator of the world”, a good first hypothesis in interpreting this statement is that he did this because he believed that God was the creator of the world. This may be considered tautological by some, or uncritical and theoretically naïve by others, but the point is not that this answers all questions; the point is that plausible links may be postulated between what we find in the sources and what the author’s historical state of mind may have been, and that this is an important first step.⁴⁶ Allowing to move the problem from texts to minds allows us to ask ourselves the question how certain ideas cohered in someone’s mind, or how they got there at all.

Apart from comparing the hermeneutic meanings of the texts, then,⁴⁷ we will be ascribing intentions, reasons, motives to their authors – we will be interpreting Augustine and Melanchthon on the assumption that they were historical figures, and this will be of importance in the explanation of the intellectual differences as expressed in their texts. Nonetheless, although we will look at the historical context, the comparison will be effectively ‘synchronic’ in the sense that no attention will be paid to the historical *development* of Western thought between Augustine and Melanchthon. The question is focused on the early modern world in which Melanchthon lives, but we are placing Augustine not a long millennium behind, but *next* to him. And in doing this, we will begin by watching him steal fruit from a tree.

⁴⁶ The premise being, of course, that the past is not so radically other that it precludes any movement from texts to historical states. Frank Ankersmit invokes precisely this radical otherness in his debate with Mark Bevir on interpretation and intentionalism (Ankersmit(2001) 357-358), though Bevir outflanks him by asserting that the present is no less constructed than the past (ibid., 359-361).

⁴⁷ It is rightly pointed out by Ankersmit in Ankersmit(2001) 354-355 that the intentions of someone in saying something have no necessary bearing upon the meaning of what is said: hermeneutic meaning and intention are not simply to be equated.

Chapter 2: knowledge after the Fall

2.1 The meaning of sin

One of the most well-known passages in Augustine's *Confessions* is his analysis of a one-time youthful lapse into thievery – an event that has happened more than half a life before Augustine writes his spiritual autobiography, but that apparently still haunts him to such an extent that it justifies devoting almost an entire book to it.

He and his friends had once stolen a few pears, in an act that had embodied essentially everything that was wrong with humanity.⁴⁸ Though Augustine does not explicitly draw the comparison, taking a forbidden fruit in itself has an obvious resonance with the Fall of Adam and Eve. More important than what the physical act symbolizes, however, is Augustine's interpretation of his motivation: in many different wordings, he repeats that, in a sense, there *had not been* any motivation – the pears were not better than other ones to which he could have had legitimate access, and moreover, he and his friends had taken more than they could eat.⁴⁹ This made the crime all the worse: it would have been sinful enough to love something inferior over something better – to be driven to murder by the desire for wealth or honor, for example⁵⁰ – but in Augustine's case there had been literally nothing to gain.

Augustine's judgment of his former self is unambiguous about this: "I had no motive for my wickedness except wickedness itself. It was foul, and I loved it."⁵¹ Augustine had been driven by a desire, not for anything even minimally good, but by a desire for evil itself – that is, in the end, for 'nothingness'.⁵² "I loved the self-destruction, I loved my fall, not the object for which I had fallen but my fall itself. My depraved soul leaped down from your firmament to ruin."⁵³ This is human sinfulness in its most absolute form: it is a deed of pure evil because it represents an unmitigated transgression of God's law, and as such it is an act directed 180 degrees away from God and straight towards self-destruction.

But this determined love of self-ruin is not the only form that human failure takes in Augustine's life. For later, having shaken off a lot of the errors of his youth, he actually does want to choose for a good and chaste life in service of God – and yet, in practice, he keeps postponing it.⁵⁴ Why? Again, for no reason, except now a lack of determination.

"I was deeply disturbed in spirit, angry with indignation and distress that I was not entering into my pact and covenant with you, my God, when all my bones were crying out that I should enter into it [...] The one necessary condition, which meant not only going but at once arriving there, was to have the will to go – provided that the will was strong and unqualified, not the turning and twisting first this way, then that, of a will half-wounded, struggling with one part rising up and the other part falling down."⁵⁵

Even the well-wishing Augustine is incapable of reaching out for God, but now because of a disunity of his will: he wants multiple things at the same time, and even though he is aware that the one is better than the other, he turns out to be unable to focus his desires on the better good. The human soul,

⁴⁸ Augustine, *Confessions*, 2.4.9.

⁴⁹ *Ibid.*, 2.6.12.

⁵⁰ *Ibid.*, 2.5.11.

⁵¹ *Ibid.*, 2.4.9.

⁵² About the relation between evil and non-existence, cf. Augustine, *Confessions*, 7.12.17-7.13.19.

⁵³ *Ibid.*, 2.4.9.

⁵⁴ *Ibid.*, 8.7.17-18.

⁵⁵ *Ibid.*, 8.8.19. Cf. Charry(2006); Capps(2007) on the role of the 'divided self' in Augustine's psychology.

though it is surely one substance, yet finds itself “torn apart in a painful condition, as long as it prefers the eternal because of its truth but does not discard the temporal because of its familiarity.”⁵⁶

What we have seen in effect in these two episodes in Augustine’s life how sinfulness is identified with a turn away from God in a neo-Platonic metaphysical hierarchy: God is on the end of perfect unity and full Being, and therefore opposing God necessarily (in a sense, by definition) entails a direction towards dissimilarity and destruction. Augustine’s rebellious human will has come to be characterized by diversity, and thus by an incompetence to direct itself fully towards goodness and unity.⁵⁷ “The further away from you things are, the more unlike you they become.”⁵⁸

Though the metaphysical concepts involved in Augustine’s self-analysis are unmistakably neo-Platonic, the final message is as unmistakably Christian, and is explicitly aimed *against* a purely Platonic interpretation of human psychology and salvation. Augustine is clear about this already in the *Confessions*: what he *has* gained from the “books of the Platonists” is an eye for immaterial truth, but what he could never have gained from them is the capacity actually to access that truth. “The dark-nesses of my soul would not allow me to contemplate these sublimities. [...] I was puffed up with knowledge. Where was the charity which builds on the foundation of humility which is Christ Jesus? When would the Platonist books have taught me that?”⁵⁹ The point is that Platonism stands for intellectual arrogance, while Christianity requires humility.

In *De civitate Dei* Augustine elaborates on the arrogance of the Platonists and the relation of arrogance to the Fall. Specifically, he protests against the Platonists’ claim that it is the body that weighs the soul down, and that isolating the soul from the body would solve the conflicts to which man has fallen prey. “Those who suppose that the ills of the soul derive from the body are in error,” Augustine says;⁶⁰ for in fact, the soul can experience perturbations following from non-bodily emotions. Furthermore, it is not the body but the corruptibility of the body that drags the soul down.⁶¹ And most importantly, it is not any involuntary force that originally made man sinful. Adam and Eve had not experienced bad emotions, and had not *desired* the fruit of the forbidden tree – their will-power had not been compromised by the habits of vice and sin.⁶² They had been completely free – that is to say, they had lacked the excuse of the Platonists that their bodily desires or emotions turned them the wrong way. And yet they had sinned – their transgression of God’s law had been all the more evil, then, given that there were no involuntary impulses that it had sought to answer.⁶³ Adam and Eve did not resemble Augustine struggling and failing to be chaste; they resembled Augustine the pear-thief.⁶⁴

The cause of original sin had been an evil will only, and this started with pride, or self-love.⁶⁵ The root of the Fall, the original sin, had been the ‘self-will’ of humanity. The two cities that *De civitate Dei* is about, the most fundamental division between those that will be saved and those that are damned, are separated precisely along the line that divides self-love on the one hand from love of God and self-despising on the other.⁶⁶ Augustine’s theology of original sin draws the separation of flesh

⁵⁶ Ibid., 8.10.24.

⁵⁷ Ibid., 8.9.21.

⁵⁸ Ibid.

⁵⁹ Ibid., Augustine goes on to make explicit use of Paul’s letters against the pride of the Platonists in *ibid.*, 7.21.27. Cf. Brown(1967) 102-104, where (in the context of Augustine’s dilemma in choosing between the two) the main issue that separates Platonism from Christian philosophy is described as that of individual spiritual autonomy.

⁶⁰ Augustine, *City of God*, 14.3.

⁶¹ Ibid., 13.6

⁶² Ibid., 14.10-11.

⁶³ Ibid., 14.12.

⁶⁴ Mann(2001) 46-47 on the disobedience of Adam and Eve as an example of the sheer willfulness of sin for Augustine.

⁶⁵ Ibid., 14.13.

⁶⁶ Ibid., 14.28.

and spirit in Paul's letter to the Romans completely into the mental domain: it is not because of his physical body – his material flesh – that man resembles the devil (for the devil does not even possess a body), but because he tries to live after himself.⁶⁷ To live after oneself is to live after the flesh, which is an evil, and a spiritual evil at that – it bears no necessary relation to carnal vice.⁶⁸

This principal sin, the diversion of the will towards the self, away from God and thereby towards non-being and self-destruction, justly deserves to be rewarded by actual destruction. In a very real sense, Adam, Eve and Augustine the pear-thief *choose* to die – we have seen Augustine speak even of 'loving to perish'.⁶⁹ Though death is indeed a punishment actively imposed by God upon man, it is at the same time the inherent consequence of the transgression of God's law, rather than of the wrath of a jealous deity.⁷⁰ Put very simply, the human tendency towards corruption – established once and for all by the first sin committed by the first humans – results in corruption. So the human body has fallen prey to decay and death, and it has itself become disobedient to the will.⁷¹ Specifically, our corrupted body is the source of lustful emotions – lust itself being present not simply in the body but in the soul, as Augustine emphasizes.⁷² Presently, then, our will, being a weaker force in the soul than lust, is unable to command the body with respect to sexual appetite.⁷³ This is why we have seen Augustine struggle and *fail* to become chaste: even the good part of his will is simply not strong enough.

So this is what original sin has done: the result of our free choice to leave God, it has left us unable to return to Him even though, once we have realized our sorry state, we feel a strong desire to do so. Death has become so powerful that it might well have dominated each and every one of us for all eternity, had not God's unmerited grace saved some.⁷⁴ This aspect of the cosmic drama is re-enacted in Augustine's autobiography as well: "such was my heart, o God, such was my heart," he sighs in the middle of his pear-story. "You had pity on it when it was at the bottom of the abyss."⁷⁵

And famously, the solution to Augustine's incapability to be chaste lies in the angelic voice of a child telling him to take up and read the letter to the Romans by Paul, the 'least of the Apostles', where he reads that the answer is submission to Christ.⁷⁶ The episode is full of signs of humility; in the end, Augustine's full conversion to the Christian God is not something that he has done himself but that God has done for him.⁷⁷

Where Augustine feels he has to affirm human frailty and dependence against the Platonists – that is, against the major coherent pagan alternative for Christianity (and especially philosophical Christianity) in the late Roman empire⁷⁸ – Melanchthon feels he has to do something similar against a differently named enemy. In the 1553 edition of his *Loci Communes*, a systematic and didactic work

⁶⁷ Ibid., 14.3. Book 12 of *de civitate Dei* is about the difference between good and evil angels, the division of which shows all the more clearly the *locus* of evil, i.e. a corruption of the will (which is, by definition, voluntary).

⁶⁸ Ibid., 14.2.

⁶⁹ Which can be contrasted with Augustine, *City of God*, 11.26, where Augustine states against the skeptics that there are three things about which he is infallibly certain: that he exists, that he *knows* that he exists, and (in an impressive critique of Cartesian intellectualism more than a millennium before its birth) that he *loves* his own existence. Notably, loving to exist is the natural state there: Augustine unhesitatingly assumes that anyone would prefer even eternal suffering over non-existence. This statement does not belie his state of mind during the pear-thievery: if anything, Augustine's affirmation that his metaphysical presuppositions demand existence to be good at once demonstrates the deluded perversity of the *amare perire* of the sinner.

⁷⁰ Augustine, *Confessions*, 2.4.9; Augustine, *City of God*, 14.12.

⁷¹ Augustine, *City of God*, 14.15.

⁷² Ibid., 14.16

⁷³ Ibid., 14.19

⁷⁴ Ibid., 14.1

⁷⁵ Augustine, *Confessions*, 2.4.9.

⁷⁶ Ibid., 8.12.29.

⁷⁷ Ibid., 8.12.30.

⁷⁸ Praet(1992) 75-77.

on Lutheran theology, Melanchthon defines original sin as: “being in God’s disgrace and wrath, because of the fall of Adam and Eve, and because of the pitiful loss of divine presence, divine light and working in us, and because of our blindness and doubt of God, and our evil inclinations, which are against God, sinful, and damned.”⁷⁹ This definition would suffice, he goes on to say, had not popes and monks spread some satanic lies about it, namely that our postlapsarian evil inclinations are not in themselves a reason to be condemned, and that our natural powers are sufficient to obey God’s law.⁸⁰

Against this opinion, Melanchthon asserts that: “since we have lost [our original righteousness] through Adam’s fall and sin, all human powers – both in body and spirit – have become so horribly corrupted, that we cannot be obedient to God’s command.”⁸¹ So much for the sufficiency of natural powers; in his emphasis on our fundamental inability to be righteous after the Fall, Melanchthon is making a point very similar to the one we have seen Augustine make.⁸² Matters are more complex, however, when Melanchthon elaborates on the punishment for original sin and the status of lust. “The scholastics say”, he starts – and of course ‘the scholastics’ saying something is hardly ever a point in favor of it – “that evil lust is a punishment for sin, but is not sin in itself.”⁸³ Melanchthon begs to differ:

“we say, that evil lust is a punishment for sin, and also in itself sinful and damnable. So, too, is death a punishment, imposed because of sin. The major and highest, most horrible punishment however, is that because of sin we have been submitted to the gruesome power of the devil.”⁸⁴

Two things are noteworthy here in comparison with Augustine. First, the reference to the devil signifies an element in Lutheranism that is much less prominent in Augustine’s thought: for Luther, man is under the power of either God or the devil, and this is why he is essentially un-free.⁸⁵ Augustine on the other hand is not very eager to describe man as a passive battlefield of the two opposing forces of good and evil, because in his time such a dualist view is associated with a religious system that he is all too familiar with: Manichaeism.

Manichaeism, a kind of Gnosticism claiming that the principle behind the corrupt material world must be evil and that there must therefore be two struggling and opposing forces, one spiritual and one material, stands in fundamental opposition to the metaphysical optimism of both Augustine and of the other neo-Platonically inspired thinkers of late Antiquity. In the words of Peter Brown, late ancient Hellenistic thinkers “shook this dark mood from themselves, and never looked back.”⁸⁶ By Augustine’s time, philosophical neo-Platonists and Catholic Christians (and Augustine is both) have found common ground in the claim that there can be only *one* highest principle, and that this principle is necessarily good. Therefore, there can be no question that everything around us is essentially good – there is nothing to resist the goodness of the highest principle.

This turns out to be a tough position to maintain in practice, however, and Augustine takes the Manichean threat to it very seriously: if there is only a just God, *unde malum* – whence evil?⁸⁷ And importantly, apart from the challenge to Christian metaphysics that Manichean dualism signifies, for Augustine it has a very personal meaning: he has been a committed follower of the sect for nine years

⁷⁹ Melanchthon, *Loci* (1553) 166, l. 2-6.

⁸⁰ *Ibid.*, 166, l. 7-18.

⁸¹ *Ibid.*, 167, l. 11-14. (Melanchthon is invoking the authority of Anselm of Canterbury on this specific point.)

⁸² And on this point, both sometimes define the common enemy as Platonism; Melanchthon does so for example in Melanchthon, *Loci* (1521) 6.

⁸³ Melanchthon, *Loci* (1553) 169 l. 2-3.

⁸⁴ *Ibid.*, 169 l. 2-7.

⁸⁵ Greschat(2010) 56.

⁸⁶ Brown(1971) 72.

⁸⁷ E.g. Augustine, *Confessions*, 3.7.12 (quoting the Manichees); *ibid.*, 7.5.7.

of his life.⁸⁸ When in the end he definitively emerges as a Catholic bishop, these nine years explain why for him Manichaeism represents much more than an abstract intellectual threat to Christian theology – it is so much part of his personal spiritual history that it is always on his mind, and always in need of refutation.

What the Manichean solution to the problem of theodicy – namely hypostasizing evil as a principle equal in strength to the good, spiritual principle – does, according to Augustine, is to provide humans with an easy excuse for their shortcomings. This is what Augustine finds unforgivable about Manichaeism: it *externalizes* evil. “I still thought that it is not we who sin, but some alien nature which sins in us,” Augustine remembers about a later stage of his immersion in Manichaeism. “It flattered my pride to be free of blame and, when I had done something wrong, not to make myself confess to you that you might heal my soul; for it was sinning against you. I liked to excuse myself and to accuse some unidentifiable power which was with me and yet not I.”⁸⁹ This is a kind of pride different from Platonic self-reliance, and probably worse, because it denies that sin is a disorder of *our* soul, and that it is *our* sickness even if we are incapable of healing ourselves. If human frailty is what Augustine affirms against the Platonists, human responsibility is what he needs to affirm against the Manicheans. We cannot pass on this responsibility to an external evil principle.

All this is not to say that the Lutheran emphasis on the role of the devil is a backdoor for Manichaeism, of course – for Melanchthon there is no question that God is infinitely more powerful than the devil, and it is definitely *we* who sin; I am rather making the point that Manichaeism is quite far from Melanchthon’s mind when he is writing about sin. He is positioning himself in an intellectual landscape that is different from Augustine’s, and even if he shares with Augustine a message of utter humility, the difference in intellectual context goes together with a different framing of this message. Melanchthon feels that the principal kind of pride with which he has to deal is a naive optimism about human capacities, and he is therefore quick to emphasize that sin is everywhere; Augustine on the other hand feels that the traps of fatalism and reductionism, and therefore of a loss of responsibility, are ever present, and he wants to keep any suggestion of this at an arm’s length.

This is also important to our second observation, about Melanchthon’s remark on lust: “that evil lust is a punishment for sin, and also in itself sinful and damnable.”⁹⁰ This subtly differs from what Augustine says about lust: we have seen him define sin as a disorder of the will, and lust as something disturbing the will – lust is the body and lower mind in their disobedience to us,⁹¹ something that overpowers a ‘will’ that is apparently conceived as a separate entity.⁹²

Melanchthon has a different view of the will.⁹³ In the 1521 edition of the *Loci Communes* – admittedly an early work that precedes an important development in Melanchthon’s thought, on which more is to be said later – one of the first things that he does is to blur the distinction between will and passions. Instead, will and passions may be used synonymously – “this force is either called will, or

⁸⁸ Ibid., 4.1.1.

⁸⁹ Ibid., 5.10.18.

⁹⁰ Melanchthon, *Loci* (1553) 167, l. 3-4.

⁹¹ Augustine, *City of God*, 14.15.

⁹² Ibid., 14.16.

⁹³ Melanchthon is not happy with all that Augustine has written about free will (Melanchthon, *Loci* (1521) 1.1). His criticism is mainly that he interprets Augustine as saying that all sin is a sin of the will: cf. Meijering(1983) 20-30. According to *ibid.*, 29 n. 45, this is a misinterpretation of Augustine, who does not regard our sinning as voluntary. Nonetheless, even if Augustine believes it to be impossible for us not to sin, his condition for responsibility is that the mind must in principle have that power and that “the mind becomes a slave to lust only through its own will” (Augustine, *Free choice*, 3.1.2.8). The inevitability of sin is a punishment, and it is not natural to us; Augustine explicitly says that if it would be, it would therefore not be sin (*ibid.*, 3.18.51.173). Cf. King(2010) xviii-xxiii; Stump(2001a) for an evaluation of Augustine’s position on free will, including the apparent inconsistency that he seems to consider the will of faith a gift of God even though it is our responsibility.

passion, or appetite”.⁹⁴ Our emotions are not in the power of the will, not simply because the will is not strong enough but because it is not separated from them: “what, after all, is the will, if not the source of the passions? And why do we not replace the name ‘heart’ for the word ‘will’? [...] The schools err when they say that the will can by nature oppose the passions or discard them”⁹⁵ Melanchthon explicitly denies that there is any force in man that can seriously oppose his own emotions.⁹⁶

This is why Melanchthon can easily call lust itself sinful: because it is a passion that cannot be conceived separately from the faculty that is supposed to be the location of virtue and sin.⁹⁷ This minimizing of the distinction between will and passions is not an arbitrary detail of doctrine: it is an important element of the Lutheran campaign against good-works theology: after all, as Melanchthon summarizes the scholastic position, as soon as one has done his penitence, “the will has the power –as they say – to bring forth good works.”⁹⁸ The will’s ability to do these things *in spite of* the fact that we are by nature evil and impious is supposed to count, according to late medieval Catholic theology.⁹⁹ We may have all kinds of unworthy inclinations, but when we *choose* not to act upon those, we are doing something that God recognizes as meaningful. This is why the scholastics tend to say that God judges our will (as opposed to the passions, even though they recognize the existence and corrupted nature of the latter), while Melanchthon summons Scripture to rephrase this and says that God judges the heart.¹⁰⁰ “What point is there in continuing to talk about the freedom of external works, when God demands purity of heart? It is a thoroughly Pharisaic tradition, that the foolish and impious people have written about free will and the righteousness of works.”¹⁰¹

Again, we see how different views of the surrounding intellectual landscape give a different shape to what is essentially the same doctrine: both Augustine and Melanchthon have strong opinions on original sin, in the sense that they both consider humans after the Fall to be necessarily and inescapably sinful. (This has, I trust, been satisfactorily established by now: that both Augustine and Melanchthon affirm the weakness and insufficiency of human faculties.) Yet while Augustine’s main fear is not simply the self-sufficiency of Platonism but also the unrepentant attitude of Manichaeism, both of which he considers to be connected to the attribution of evil (or lack of good) to body and matter, for Melanchthon sin is something not completely immaterial but something in the ‘heart’, which involves the bodily passions.

More than Augustine, then, Melanchthon is inclined to implicate the body in human sinfulness. Which is not to say that this results in a simple identification of sin with bodily passions, of course, as Melanchthon explains:

“Where is original sin? Answer: some thick people have taught that original sin is only an evil tendency in the body, namely towards indulgence and towards inappropriate love and hatred. But you should know that it is blindness and disorder in the soul and the heart and other facul-

⁹⁴ Melanchthon, *Loci* (1521) 1.9.

⁹⁵ *Ibid.*, 1.46.

⁹⁶ *Ibid.*, 1.56.

⁹⁷ *Ibid.*, 1.17.

⁹⁸ *Ibid.*, 1.52.

⁹⁹ Hendrix(2004) 42-45 warns against trying to isolate the controversy on indulgences from Luther’s theoretical attack on the late medieval opinions on salvation: his objections to the institution of indulgences have a strong relation to his opinions on passive justification. It is important to keep in mind that the extent to which theological notions were socially embedded at the beginning of the 16th century implied that the acceptance of this theological notion could not be without deep impact on the social structure (Brennecke(1998a) 13-18).

¹⁰⁰ Melanchthon, *Loci* (1521) 1.57.

¹⁰¹ *Ibid.*, 1.61.

ties. For while the soul is not now God's temple, she is full of doubt of God. Moreover, the heart is also full of wrong inclinations, etc."¹⁰²

The difference between Augustine and Melanchthon will turn out to be important, however. Nonetheless, for now we will turn our attention towards the implications of human sinfulness for knowledge in general.

2.2 Sin and knowledge

After all, if there is nothing humans can do to alleviate their corrupted condition to a significant extent, then it seems to follow that human knowledge is essentially inadequate. This is indeed confirmed by several remarks about human knowledge and human science made by Augustine and Melanchthon.

"Lord God of truth," Augustine says, "surely the person with a scientific knowledge of nature is not pleasing to you on that ground alone. The person who knows all those matters but is ignorant of you is unhappy. The person who knows you, even if ignorant of natural science, is happy. Indeed the one who knows both you and nature is not on that account happier."¹⁰³ According to Augustine the philosophers "can foresee a future eclipse of the sun, but do not perceive their own eclipse in the present."¹⁰⁴ Nor is Augustine only talking about natural philosophy here; all the arts have proved incapable of moving him towards God. "What advantage came to me from the fact that I had by myself read and understood all the books I could get hold of on the arts which they call liberal, at a time when I was the most wicked slave of evil lusts? [...] quick thinking and capacity for acute analysis are your gift. But that did not move me to offer them in sacrifice to you."¹⁰⁵

Melanchthon explicitly links original sin to our incapacity to approach God through knowledge:

"all faculties have been wounded. The intellect has been weakened, is full of doubt of God and cannot recognize other things the way Adam recognized them before the fall, who had been given by God, through the eternal Word (that is, the Son), a clear view of such wisdom that he could perceive God and the order of creatures much differently than after the Fall."¹⁰⁶

Accordingly, there is essentially no such thing as a natural theology in Melanchthon's world-view – at least not in the sense that any kind of knowledge of the world around us makes an independent and indispensable contribution to relevant knowledge of God.¹⁰⁷

Melanchthon has sometimes been regarded as an advocate of a kind of natural theology,¹⁰⁸ and indeed, in many of his lectures and other works he seems to support this view. "Men are made to behold this nature of things, and are as if placed in this theatre by divine providence, so that, by under-

¹⁰² Ibid., 171 l. 5-10.

¹⁰³ Augustine, *Confessions*, 5.4.7.

¹⁰⁴ Ibid., 5.4.4.

¹⁰⁵ Ibid., 4.6.30

¹⁰⁶ Melanchthon, *Loci* (1553) 165, l. 4-9.

¹⁰⁷ More subtle definitions of natural theology are conceivable, of course, as in McGrath(2008): for McGrath, nature can, within the interpretive framework of Christian theology, be seen or read in a way which connects it to the transcendental. McGrath explicitly refrains from the universality of Enlightenment natural philosophy (ibid., 140-170) – for him, there is no universal principle like nature from which we may proceed to knowledge of God: nature is a constructed notion and natural theology is therefore culture-bound. The point is, therefore, that the key to the 'correct' interpretation of nature cannot be found in nature itself (ibid., 133-139). On the role of natural theology in Christian history, cf. also Hooykaas(1999) 17-25.

¹⁰⁸ E.g. Sparr(1998) 33-35, 45-47; Frank(2001) 17; Maurer(1962) 202-205. Cf. Keen(1998) or Grosse(2003) 80-93 for a more accurate characterization of the extent to which God may be known through nature according to Melanchthon.

standing the marvelous movements of the heavens and the variety of things that come into being, we may recognize God as the Maker”¹⁰⁹ And elsewhere: “worthy minds are delighted by the contemplation of nature not only because of its usefulness, but even more by the fact that all this variety of nature is like a theatre, in which the evidence of the creator God can be perceived clearly.”¹¹⁰ Similar remarks may be added indefinitely: when defending natural philosophy, Melanchthon almost always refers to the evidence of God in nature.

But how is this to be harmonized with the pessimistic view of human faculties after the Fall? In fact, in spite of the optimistic wording of this message, Melanchthon is not all that generous about the extent to which evidence of God may be perceived in nature. Without exception, what we learn through nature (that is to say, the order within nature), is restricted to the following: “that it was created by an eternal mind, and that this creator cares about human nature.”¹¹¹ Natural philosophy is an argument against “Epicureans or Academics”¹¹² – against the idea that natural phenomena are brought about by chance, and in favor of a providential creative mind. But even though Melanchthon involves the rather Christian notion of divine providence within his notion of the *mens architectatrix* whose existence may be known through observation of nature, this knowledge of an intelligent and purposefully designing mind still lacks the most essential aspect of the Christian God.¹¹³

That is, it is utterly impossible to understand the forgiveness of sin through rational and philosophical inquiry of nature. The investigation of nature may lead us to a certain knowledge of God and his providence, but it is not part of the Gospel.¹¹⁴ Melanchthon even explicitly rebukes those “illiterate men” who think that, “by the guidance of nature, they can comprehend the will of God.” After all, “the creation of things is a great and admirable work. However, it is no smaller favor that He disclosed Himself, made Himself known to men and has spoken to us in friendly terms, so as to show that He is moved by concern for humankind.”¹¹⁵ For a true Christian, Christ’s saving work is of an importance at least as momentous as the creation of the universe, and this message is proclaimed not in creation but in the Bible: “just as Moses, standing on the rock, saw God before his very eyes in the clear light, thus you should know that, with certainty, He converses with you every time you read those very books of the law, of the Prophets and of the Apostles, which God has consigned to the Church”¹¹⁶

The main source of communication with God is and remains the Bible. In our desire to understand the early modern turn towards nature in relation to early modern Protestantism, we should not ignore that it is Protestantism which formulates the *sola Scriptura*-principle: true to the idea that man cannot contribute to his own salvation, it decides that rather than us accessing God through rational and universal means and discovering Him in nature, it is God who takes the initiative by approaching us through his Word as written down in Holy Scripture. This aspect of Protestantism necessarily is a

¹⁰⁹ Melanchthon, ‘On the life of Galen’ (1540) in: Melanchthon, *Orations*, 212-219: 212.

¹¹⁰ Melanchthon, ‘On the merit of the art of medicine’ (1548) in: Melanchthon, *Orations*, 169-174: 171.

¹¹¹ Melanchthon, ‘On astronomy and geography’ (1536) in: Melanchthon, *Orations*, 113-119: 118.

¹¹² Melanchthon, ‘On natural philosophy’ (1542) in: Melanchthon, *Orations*, 133-138: 136.

¹¹³ Cf. Bellucci(1998a); Methuen(1998) 94-95. Melanchthon’s views are not significantly different from, for example, Calvin’s opinions on the extent of God’s Self-revelation in nature (on which cf. Steinmetz(2004)). The point is that Melanchthon’s views on knowledge of God through nature are not extraordinary in Christian theology, and do not satisfy as an explanation for his extraordinary interest in natural philosophy. Cf. also Meijering(1983) 126-132 on the consistent subordination of natural to biblical revelation in Melanchthon’s thought, even in the most mature edition of the *Loci communes*. In general, I am very suspicious of the ‘argument from design’ as a historical explanation for the rise of science (cf. Osler(2010) 79-82): seeing order and therefore divine intelligence in nature predates science by a long time, and it is hardly a motivation for thorough investigation of nature.

¹¹⁴ Melanchthon, ‘On Plato’ (1538) in: Melanchthon, *Orations*, 191-203: 194.

¹¹⁵ Melanchthon, ‘On the rôle of the schools’ (1543) in: Melanchthon, *Orations*, 9-22: 11

¹¹⁶ *Ibid.*, 12

turn *away* from natural theology, and explaining Melanchthon's support for natural philosophy by natural theology is therefore inherently problematic.¹¹⁷

Of course, Melanchthon's emphasis on the written divine Word as the only complete source of Christian theology, at the cost of nature, is not only a consequence of Protestant salvation-theory, but results also from the other major tradition that Melanchthon identifies with and that we know as humanism.¹¹⁸ In time, Melanchthon is a humanist before he is a Protestant; and when he holds his inaugural lecture at Wittenberg in 1518, insisting "that the studies of youth need to be corrected", his thought has not yet been as thoroughly shaped by Lutheran theology as it will be a few years later.¹¹⁹ Here we see Melanchthon the humanist, and we may perceive in this lecture many of the motifs that will return in his later exhortations to natural philosophy – except that in this lecture, Melanchthon does not advocate the study of nature so much as the study of ancient and especially Greek literature. Granted, Melanchthon does mention mathematics and natural philosophy,¹²⁰ but mainly as some of the many fruits of the study of letters. The systematic defense of natural philosophy that is to be found in his later works is absent here.¹²¹

What Melanchthon does do is to formulate a large-scale defense of learning and its relevance for all domains of life – including religion: "with the spirit as leader, and the cult of the arts as ally, we may approach the holy." Philosophy may be put to good use in the search for the divine.¹²² If it is healthy, that is; for in practice, a lot of the right, ancient philosophy – a kind of combination of Aris-

¹¹⁷ Nonetheless, the Biblicism of the Reformation is not obviously a simple force against modern science. Harrison(1998) argues that while the modern world-view ascribed meaning exclusively to words, and not to things, medieval allegoric interpretation read meaning in objects (ibid., 1-10; Augustine's theory of signs as explained in the first book of *On Christian doctrine* is an important source for this). This was connected with the interpretation of the Bible, the literal meaning of which was considered to be less important than the symbolic, spiritual meaning of the objects to which it referred (ibid., 11-33). The major reformers, on the other hand, distrusted allegory and preferred to focus on the literal meaning of the Bible, motivated by a humanist insistence that the original intention of the author was what counted, not the additions of later commentators (ibid., 107-120). The rejection of symbolism then also led to a more literal 're-reading' of the book of nature (ibid., 121-160). Van der Meer(2009) is critical of this thesis, pointing out that the textual ambiguity that the reformers sought to solve was not necessarily related to symbolism or allegorical interpretation (the point was simply that any interpretation had to conform to authorial intent (ibid., 139-140)). The authors restrict the contribution of the Reformation to science to its tendency to spawn interpretive disagreements and thereby eventually to motivate a turn towards nature (ibid., 148-150). Harrison(2009b) tries to maintain that the rejection of allegory has important implications for the view of nature, and this seems not improbable; but it remains unclear how 'stripping' nature of its spiritual meaning would increase the motivation for studying it. According to Funkenstein(1986) 23-77, it is the synthesis of a nominalist emphasis on uniformity with a Renaissance emphasis on the homogeneity of nature that lies behind the scientific intuition of the seventeenth century; for the role of Protestantism in this, cf. ibid, 70-72.

¹¹⁸ Cf. Cameron(2001a). An emphasis on the word as mediator between God and man also plays a prominent role in the theology of Erasmus (Rummel(2004)), for which reason Erasmus considered mastery of language to be of crucial importance in understanding God and being persuaded by Him. The indispensability of the 'word' here may be contrasted with the theology of one of Melanchthon's would-be adversaries, Zwingli, for whom the Spirit could work independently from the Word (and therefore also in non-Christians: Stephens(2004) 84-91).

¹¹⁹ Melanchthon, 'Studies' (1518)

¹²⁰ Ibid., 48-49; ibid., 54. The fact that Melanchthon considers mathematics to be applicable to Aristotelian philosophy is in itself important (cf. also Methuen(1998) 85-87); later in the century, a lot of anti-Aristotelian philosophies identify themselves in part with a commitment to mathematical order in the world (Garber(2006) 36-43), something that is not generally associated with Aristotle but that Melanchthon evidently does not see as incompatible with his philosophy.

¹²¹ Cf. Cohen(1994) 271-279 for an overview of interpretations of the relation between humanism and the exact sciences. Kristeller(1988) argues that the *studia humanitatis* referred quite specifically to grammar, rhetoric, poetry, history and moral philosophy, and therefore the *quadrivium* was outside its proper domain: the other disciplines followed a path that was to a large extent determined by the medieval tradition, albeit strongly influenced by humanism (ibid., 113-114).

¹²² Melanchthon, 'Sermon delivered before the youth of the Academy at Wittenberg, on correcting the studies of youth' (1518) in: Melanchthon, *A reader*, 47-57: 54.

tole and knowledge of mathematics – has been neglected and contaminated by the scholastics.¹²³ The Church, Melanchthon boldly says, has replaced piety by human tradition, by love for our own works.¹²⁴ No doubt this formulation is to the satisfaction of his Luther-friendly audience, but Melanchthon's dismissal of the scholastic tradition is very much in tune with humanist criticism of scholasticism, and his solution to the problem fits squarely within the humanist tradition: read the Greeks.

And in spite of his censure of the 'love for our own works', there is no mistake that Melanchthon maintains that human learning makes a real contribution, albeit somewhat vaguely defined, to religion. It is not at first sight evident that this view is in the end consonant with the Lutheran insistence on the utter uselessness of any of our activities; and indeed, once Melanchthon has appropriated the Protestant emphasis on the extreme consequences of the Fall (as described above), he is quick to reassess his former trust in Aristotle and learning in general. In 1521, in the first edition of his exposition of Lutheran theology in the *Loci communes*, he wipes the floor with everything that is philosophy and Aristotle precisely for this reason, that the Aristotelian philosophy of the Church places power in human hands.¹²⁵ Christians are supposed to study only the Scriptures, for elsewhere they will find only things that depend on philosophy and the judgment of human reason, and that are diametrically opposed to the Holy Spirit.¹²⁶ It is not for nothing that Paul has said that God is known through folly, not wisdom.¹²⁷

Because learned discussions about divine matters are empty, Paul did not philosophize about abstract themes like the nature of the Trinity, but he taught about themes that are of immediate importance to the salvation of the soul: sin, law and grace.¹²⁸ The essence of the Bible are these themes, not any doctrine about morals and virtue: whoever turns to Scripture merely to look for guidance in matters of virtue and vice is a philosopher rather than a Christian.¹²⁹

We must remain aware of this: that to the pre-modern Western mind, virtue and rationality are intrinsically related; and that Lutheranism insists that if Christianity transcends rationality (if it is folly rather than wisdom), it therefore transcends virtue as well. The ancient moral philosophers, Melanchthon says, may have taught and displayed fortitude, chastity, moderation, and all that; and yet this was a disgrace, for these things arose from impure and selfish hearts.¹³⁰ The philosophers judge people for their external and possibly virtuous-seeming behavior; Scripture judges them for their internal passions, and these are by nature sinful.¹³¹

Original sin is a living reality within us, which always carries fruit – namely sins – the worst of which we do not even perceive: we experience ambition and hatred and more of those vices against which moral philosophers have written, but we do not feel our godlessness.¹³² Yet our principal passion, self-love, is inherently directed against God, and leads us to hatred of Him.¹³³ The role of the

¹²³ Ibid., 50.

¹²⁴ Ibid., 54.

¹²⁵ Petersen(1921) 19-38 provides an interpretation of Melanchthon's battle against Aristotelianism in the years between 1518 and 1522, of which the *Loci communes* of 1521 are the high point: he warns that we should not regard the break with Aristotle as too complete lest Melanchthon's later Aristotelianism might become inexplicable. In fact, even in this period it is largely the scholastic Aristotle that Melanchthon rejects, and Petersen recognizes Aristotelian influence even in the *Loci*. It is mainly the experience of human helplessness and insufficiency that separates Melanchthon from the Aristotelians, and Petersen adds to this the psychological influence of Luther on the young Melanchthon.

¹²⁶ Melanchthon, *Loci* (1521) *Epistola dedicatōra* 7-8.

¹²⁷ Melanchthon, *Loci* (1521) 0.7.

¹²⁸ Ibid., 0.17-18.

¹²⁹ Ibid., 0.21.

¹³⁰ Ibid., 2.31.

¹³¹ Ibid., 2.36.

¹³² Ibid., 2.27.

¹³³ Ibid., 2.13

Law, which demands good and forbids evil,¹³⁴ is first and foremost to instill in us an awareness of sin.¹³⁵ In this work of Melanchthon, the Law is of a fundamentally different nature than the demands of the moral philosophers (even if he goes on to categorize it and relate it to a lot of moral precepts). What the Law does is not to demand external acts, but to demand goodness of heart.¹³⁶

And in doing this, it damns us, for we cannot fulfill this demand.¹³⁷ Those who try to live according to the Law by their own nature and reason, are living according to a wrong understanding of it, for they do not see that it demands something that is impossible to us.¹³⁸ In others, however, God works through the Law to make sin manifest: the Law points to the root of our sin – it accuses us, it kills. It is there as a force for good, but because we cannot live up to it, it becomes an instrument of death and of sin, of the wrath of God.¹³⁹ But paradoxically, for those in whom the Law works in this way – not the hypocrites, the Pharisees, the philosophers, the scholastics (or ‘sophists’), who see it as a body of moral precepts, but those to whom the sinfulness of their passions is revealed in its horrifying magnitude – it is also the first step towards reconciliation with God. We are not by nature capable of recognizing the magnitude of our sin, and therefore God takes the initiative by revealing it to us, and by inspiring us with fear and hatred of sin. This humiliation is a necessary step towards justification: if our fearful conscience proceeds to believe in Christ’s forgiveness, it can live again.¹⁴⁰ Law and Gospel, then, work together: the Law to frighten us, the Gospel to comfort us.¹⁴¹

Evidently, the Law in this sense has nothing to do with philosophy. Learnedness simply has no bearing upon this divine work of accusing and forgiving us – let alone learnedness in matters of natural philosophy. To the forgiveness of our sins and our final happiness, science cannot contribute anything at all. Augustine and Melanchthon are both serious when they say this, to be sure; yet we also have to take into account that when they are attacking intellectualism, they are partly combating their own pride. After all, they both are celebrated intellectuals in their time, and as intellectuals go, they tend not to think of their intelligence and knowledge as something completely worthless: Augustine remembers how he used to think that his extraordinarily speedy and thorough understanding of Aristotle’s *Categories* was very important to his understanding of the divine.¹⁴² When Melanchthon attacks the whole corpus of classical moral philosophy, he is not coolly dismissing some remote erroneous opinions; he is indirectly humbling himself, declaring meaningless precisely those Greek intellectuals that used to make him who he was.

Christianity famously preaches that the kingdom of heaven belongs to the “poor in spirit”,¹⁴³ and Augustine and Melanchthon heroically face the consequences, demeaning the most valuable assets that they have in this world. But if they choose to chastise themselves through condemning the wisdom of the Greeks that they possess, it does not necessarily mean that they will also draw the conclusion that the world would be better off without it.

Multiple events in the 1520s lead Melanchthon to reassess, again, his valuation of learnedness. The common denominator of these events is the association between radically reformed thought and socially disruptive movements that deeply troubles Melanchthon.¹⁴⁴ The so-called Zwickau prophets,

¹³⁴ Ibid., 3.4.

¹³⁵ Ibid., 3.1.

¹³⁶ Ibid., 4.32-39.

¹³⁷ Ibid., 4.46.

¹³⁸ Ibid., 4.52-64.

¹³⁹ Ibid., 4.65-78.

¹⁴⁰ Ibid., 4.105.

¹⁴¹ Ibid., 4.114.

¹⁴² Augustine, *Confessions*, 4.16.28

¹⁴³ Matt. 5:3.

¹⁴⁴ The threat of radical movements is also identified as a stimulator of Melanchthon’s defense of arts and philosophy by Kusukawa(1995) 49-85; Meijering(1983) 4-18; Petersen(1921) 38-48.

preaching (in Luther's absence from Wittenberg) a radical spiritual and social message of which Melanchthon is very suspicious, already lead him to question whether the sole claim of possession by the Holy Spirit suffices to throw away all responsible thinking. A few years later, the Peasants' War especially is an example to him of how wrong and poorly supported religious ideas – notably Anabaptism – can have disastrous consequences.¹⁴⁵ We will see how this becomes a motif in his later argument in favor of systematically acquired knowledge.¹⁴⁶

First, however, we have to understand how Melanchthon is able to clear the ground theologically for a rehabilitation of knowledge and philosophy in reformed thought: else, anything that follows from here has only a very fuzzy relation to the Reformation. The problem is, of course, that a humanist trust in education is associated with an anthropology according to which people have a capacity for (self-)improvement, and therefore with an understatement (in Lutheran eyes) of the consequences of original sin and the resultant lack of freedom and self-control that humanity, in fact, has.

Melanchthon witnesses the clash of these two different intuitions on human self-improvement, when in 1524 the prince of the humanists publishes his attack on Lutheran determinism.¹⁴⁷ Erasmus finds fault with the doctrine that the human will is completely ineffective for multiple reasons, in the first place because to the simple mind it is an excuse for vice: “let us assume that it is true, as Augustine has written somewhere, that God causes both good and evil in us, and that he rewards us for his good works wrought in us and punishes us for the evil deeds done in us. What a loophole the publication of this opinion would open to godlessness among innumerable people? [...] How many weak ones would continue in their perpetual and laborious battle against their own flesh?” People are bad enough as it is, Erasmus complains, and there is no reason to pour oil upon the fire.¹⁴⁸ This moralist argument in favor of the doctrine of free will may seem rather circular to the committed determinist, but the humanist Melanchthon, like Erasmus, is sensitive to the consideration of what a certain doctrine implies for morality.

Throwing in the weight of the Church Fathers, Erasmus says that so far, almost no-one has completely denied the freedom of the will, except for John Wycliffe and Mani.¹⁴⁹ Have all these excellent men and saints been blind, and if so, who can then claim revelation by the Holy Spirit?¹⁵⁰ “If they say: what can philosophical understanding contribute? I answer: what can ignorance?”¹⁵¹ Anybody is now demanding to be believed simply because of the claim to have the Spirit, Erasmus grumbles,¹⁵² another point that Melanchthon will take seriously.

¹⁴⁵ Greschat(2010) 43-74. Stupperich(1957) discusses the specific objections that Melanchthon has to the Anabaptists: their anti-intellectualist enthusiasm, their claim to have received the Spirit without Word or sacrament, and their rejection of original sin (related to their rejection of infant baptism – the two have been connected ever since Augustine (O'Donnell(2005) 196-199 explains Augustine's doctrine of original sin by his confrontation with African infant baptism)). Cf. Roth(2002) on the historiography on the Anabaptists and other radical reformers, which has for a long time followed Melanchthon in his verdict that the Anabaptists were seditious revolutionaries.

¹⁴⁶ Which is not to say that the most important connection between Lutheran theology and learnedness in general or natural science in particular is the defense of civic obedience and virtue. Kusukawa(1995); Kallinen(1996) Bellucci(1998) 17-23 make this into an essential aspect of their historical argument. Civic virtue indeed features largely in Melanchthon's thought, but it is also a rather secular concern which in that sense remains accidental to Lutheran theology and salvation-theory, as opposed to the problem of original sin, which goes right to the heart of theological anthropology.

¹⁴⁷ Erasmus, *Free will*. In the preceding years, Erasmus had already been exhorted by Pope Adrian VI to speak out against Lutheranism.

¹⁴⁸ Erasmus, *Free will*, 8.

¹⁴⁹ *Ibid.*, 13.

¹⁵⁰ *Ibid.*, 14.

¹⁵¹ *Ibid.*

¹⁵² *Ibid.*, 15.

All human faculties have been weakened as a result of original sin, Erasmus says, but the free will has not therefore been annihilated.¹⁵³ He discusses many different opinions (within Christianity) about free will, finding that while there are some who give free will too much credit, there are two opinions which grant it too little: that the will in itself can only commit sin; and that free will does not exist and everything happens by necessity.¹⁵⁴ Erasmus considers the will to be able to want its own salvation, albeit unable to actually acquire it without God's grace, which is why Christ's help is indispensable and human free choice is nonetheless both real and effective.¹⁵⁵

Luther's response is destructive: Erasmus has said nothing on the matter which has not already been said before, and Luther himself has already often refuted the arguments of the 'sophists', whom Erasmus exceeds in his celebration of free will.¹⁵⁶ Not only has Luther refuted them; "Philip Melancthon has trampled them underfoot in his unsurpassed book", that is, the *Loci* of 1521, "in comparison with which your book is, in my opinion, so contemptible and worthless that I feel great pity for you for having defiled your beautiful and skilled manner of speaking with such vile dirt."¹⁵⁷

Especially Erasmus's claim that Luther's teachings would be dangerous for the morality of the masses provokes a drastic counter-statement:

"let me tell you, and I beg you to let it sink deep into your mind, I am concerned with a serious, vital and eternal verity, yes such a fundamental one, that it ought to be maintained and defended at the cost of life itself, and even though the whole world should not only be thrown into turmoil and fighting, but shattered in chaos and reduced to nothing. [...] to wish to silence this turmoil is really to want to hinder the word of God and stop its course. For wherever it comes, the word of God comes to change and renew the world."¹⁵⁸

If depraved persons abuse Luther's teaching about free will, this must be considered among those turmoils that are the side-effects of the work of God's word that Luther is carrying out.¹⁵⁹ Luther accuses Erasmus of being inconsistent,¹⁶⁰ and of ascribing too much to free will,¹⁶¹ but in the end the point remains that there is no room for a coherently moderate viewpoint: it is not possible to ascribe *a little* to free will without having to ascribe *everything* to it. "Therefore, we must go to extremes, deny free will altogether and ascribe everything to God!"¹⁶²

The extent to which Melancthon commits himself to the point that Luther makes, that God's word must be preached regardless of how deeply it disturbs the world, may be seen in how he echoes it decades later, on Luther's funeral: "many complain that he has thrown the Church into disorder and spread inextricable quarrels. I reply here that such is the governing of the Church. When the Holy Spi-

¹⁵³ Ibid., 20-21. On Erasmus' defense of the opinion that the human will can work together with God's grace under God's grace, cf. Burger(2009).

¹⁵⁴ Erasmus, *Free will*, 26.

¹⁵⁵ Ibid., 38-39.

¹⁵⁶ Luther, *Unfree will*, 85.

¹⁵⁷ Ibid., 85-86. The point is part of Luther's apology for having been so late in answering, not because he has been busy or because it would have been difficult, "but simply because of disgust, indignation and contempt" (ibid., 86).

¹⁵⁸ Ibid., 94.

¹⁵⁹ Ibid., 95.

¹⁶⁰ Ibid., 97.

¹⁶¹ Ibid., 105.

¹⁶² Ibid., 115. Luther's extreme pessimism about human powers does not mean his thought is actively opposed to learnedness in general or natural science in particular: in general, Luther is rather uninterested in the study of nature, but according to Maaser(1998), his definition of theories about nature as *verisimilis* ('truth-like' or 'probable') helps indirectly to liberate astronomy from natural philosophy, and in general to support a kind of science that regards theories as hypotheses rather than as absolute statements about ontology (ibid., 29-34).

rit reproves the world, discord arises because of the obstinacy of the impious”.¹⁶³ The point is that Melanchthon does not disown the Reformation: he will never return to a kind of humanism that is independent from Lutheranism, and moderate in spirit though he may be, he genuinely and passionately believes in the core of Luther’s message – peaceful as he is, he does not demand peace if it goes at the cost of God’s word.

Yet it is far from him to be as disrespectful to Erasmus as Luther is here: in an oration on Erasmus, he says that “even among good men a difference of judgments comes to pass.”¹⁶⁴ The confrontation between Erasmus and Luther signifies the point where humanism and Reformation bide each other farewell. Melanchthon, however, is both a genuine humanist and a committed reformer, and he declines to part company with either.¹⁶⁵ Therefore, he develops a reformulation of the meaning of free and unfree will, in order to combine a Lutheran view of justification with a humanist sense of self-improvement.

The way in which he does that is in a reformulation of the role of the Law in such a way that it allows for a beneficial role for philosophy again: the use of the Law is not simply to accuse the sinner (or to provide for worldly stability),¹⁶⁶ but also to instruct those who are already under God’s grace. Already in his *Loci communes*, Melanchthon has said that even though the good works of the hypocrites are as ugly in God’s eyes as the worst crimes,¹⁶⁷ and that in any case good works are never a cause of justification,¹⁶⁸ this does not exclude good works from theology: there is a relation between God’s grace and good works, because those who believe in salvation through Christ will more readily and gratefully perform good works – in this sense they are the fruits and signs of faith.¹⁶⁹ Even these works, however, are to an extent impure, because they are still performed in the flesh, and in an initial, not a completed state of justification.¹⁷⁰

After all, God’s decision to justify the sinner does not in itself *remove* sin – Lutheran theology considers the Christian under God’s grace to be *simul iustus et peccator*: justified and sinful at the same time. The saved Christian does not have an arbitrary freedom, as if once under God’s grace there is nothing that he could do wrong: he retains a responsibility for his actions in this world, and therefore a responsibility for his own mental states – the requirements of the Law continue.¹⁷¹ In his commentary on Paul’s letter to the Colossians, first published in 1527, Melanchthon draws the conclusion that for that reason, philosophy and knowledge are after all not to be despised. Philosophy and human reason cannot be used to form an opinion about the will of God, to be sure, for then they will underestimate the extent of divine providence, and overestimate the importance of social righteousness and

¹⁶³ Melanchthon, ‘At Luther’s funeral’ (1546) in: Melanchthon, *Orations*, 256-264: 258.

¹⁶⁴ Melanchthon, ‘On Erasmus of Rotterdam’ (1557) in: Melanchthon, *Orations*, 248-255: 254.

¹⁶⁵ Kusakawa(2004) 57-58 is skeptical about the possibility to place Melanchthon ‘between humanism and Reformation’, as is often done: humanism and Reformation, she says, are themselves not unitary movements and it is unclear how they are to be seen as opposites. This is largely a semantic question; I have opted to use this characterization of Melanchthon after all, in the sense that he tries to find a synthesis of two seemingly incompatible views on human self-improvement that are associated with these traditions.

¹⁶⁶ Greschat(2010) 57-59.

¹⁶⁷ Melanchthon, *Loci* (1521) 6.110.

¹⁶⁸ *Ibid.*, 6.114-115.

¹⁶⁹ *Ibid.*, 6.138.

¹⁷⁰ *Ibid.*, 6.113.

¹⁷¹ Kusakawa(2004) 58-62 on the continued role of the Law. Melanchthon’s interpretation of the role of good works would be part of an explicit controversy in Lutheranism after Luther’s death in 1546: some Lutheran theologians believed that the faithful would spontaneously perform good works and therefore the so-called ‘third use’ of the law (the pedagogic role that Melanchthon ascribed to it) would be unnecessary. *Cf.* Kolb(2004); on the uses of the Law, *cf.* also Wengert(2003).

the power of reason to resist vice.¹⁷² But philosophy, though the Gospel is wholly alien to it, can form reliable opinions about natural reality, and as such it is an important gift from God.¹⁷³

In the natural and social domain, then, but decidedly not in the domain of God's grace which is wholly His initiative, humans have a certain freedom and power:¹⁷⁴ they "possess from God a genuine and reliable judgment in social customs, in natural matters, in counting, in measuring, in building, in healing diseases."¹⁷⁵ These arts are important for the preservation of bodily life and separate civilization from barbarity, and as such they should be recognized as God's gifts; with Erasmus, Melancthon rebukes those who seem to think "as if the Christian religion consisted in nothing but the utmost ignorance."¹⁷⁶ Melancthon emphasizes time and again that the expertise of philosophy and the arts is restricted to 'earthly matters', but he does also recognize a certain importance of knowledge in religious doctrine.¹⁷⁷ "Augustine," he says, "drew up his *On Christian doctrine* with the purpose of using the knowledge of human disciplines for the understanding of Scripture."¹⁷⁸

Indeed, this work by Augustine is devoted in part to an attack on ignorance in Bible interpretation. Augustine wants to communicate certain "precepts for treating the Scriptures".¹⁷⁹ Some people may not understand these or not understand how to use them, but that is not Augustine's problem;¹⁸⁰ there are others, however, who believe that they can interpret the Bible without any rules at all.¹⁸¹ This Augustine considers to be an indefensible position: if all knowledge that we have learned from others is in principle irrelevant to our understanding of the Bible, it implies that our having learned the alphabet from other people, or our having learned to speak a language at all, is irrelevant to our ability to read it.¹⁸² Though Augustine does not find this completely absurd – there are miraculous examples of illiterate people remembering the Scriptures or being revealed the alphabet, and of the Apostles speaking in tongues through inspiration by the Holy Spirit – he also thinks that this cannot be taken to be the norm.¹⁸³ In this he shares the intuition of the magisterial reformers, that religion cannot consist simply of the claim to be inspired by the Spirit. There is a certain intellectual element at least to religious doctrine.

An aspect of this is the necessity of a knowledge of language when interpreting a text: and related to this, the necessity of avoiding errors in judgment by translators by reading the original language oneself.¹⁸⁴ Another aspect is a certain knowledge of nature: "an ignorance of things makes figurative expressions obscure when we are ignorant of the natures of animals, or stones, or plants, or other things which are often used in the Scriptures for purposes of constructing similitudes."¹⁸⁵ In order to understand the signs in the Bible, then, it is required to study them "partly with reference to a knowledge of languages and partly with reference to a knowledge of things."¹⁸⁶

¹⁷² Melancthon, *Colossians* (1927) 52-54.

¹⁷³ *Ibid.*, 55.

¹⁷⁴ Meijering(1983) 132-137 affirms that Melancthon does not fundamentally contradict his earlier opinions on free will and necessity, but corrects and extends them. The position remains that free will can control external acts but never cause an inner obedience and love of God; the difference is that the emphasis on what is in human power has grown.

¹⁷⁵ Melancthon, *Colossians* (1927) 46.

¹⁷⁶ *Ibid.*, 47.

¹⁷⁷ Frank(1995) 63-71; Scheible(1996).

¹⁷⁸ Melancthon, *Colossians* (1927) 48.

¹⁷⁹ Augustine, *Christian doctrine*, 0.1.

¹⁸⁰ *Ibid.*, 0.3; 0.5-6.

¹⁸¹ *Ibid.*, 0.4.

¹⁸² *Ibid.*, 0.7, 0.9.

¹⁸³ *Ibid.*, 0.8; 0.10-0.12.

¹⁸⁴ *Ibid.*, 2.12.18.

¹⁸⁵ *Ibid.*, 2.16.24.

¹⁸⁶ *Ibid.*, 2.16.23.

There is a certain measure of support for knowledge of nature, then, to the extent that it contributes to understanding of Scripture.¹⁸⁷ This is an argument that Melanchthon uses as well: in order to be a good preacher, it is necessary to understand the way of speaking of the prophets and the Apostles, to know the necessary languages, and to have enough erudition to defend the right doctrine.¹⁸⁸ A certain knowledge of the world is necessary for liturgical requirements: for example, “every day, in our prayers, we need to contemplate the land where the Son of God dwelt and was made a sacrifice”. Surely, that means we need geography and astronomy to be able to locate that land: “since the prayers of the mind need to dwell in these places every day, what sloth not to think where in all the lands they are!”¹⁸⁹

Both in Augustine and Melanchthon there is a strong feeling, then, that learnedness has some relevance for right religion; and they find easy arguments in knowledge that has a direct bearing upon the content of religious doctrine or liturgy. But such arguments do not necessarily encourage systematic inquiry of nature, and Augustine explicitly does not intend them to do so: of all the arts that pertain to the corporeal senses, he says that the Christian exegete requires only a rather casual knowledge. “We do not need to know how to perform these arts but only how to judge them in such a way that we are not ignorant of what the Scripture implies when it employs figurative locutions based on them.”¹⁹⁰

The main difference between the attitude towards nature-knowledge of Augustine and that of Melanchthon is rooted in a different source of legitimacy for knowledge – one that is, moreover, more directly connected to the problem of human sinfulness. This will be the focus of the next chapter.

¹⁸⁷ Lindberg(2009) 14-18; Lindberg(1983).

¹⁸⁸ Melanchthon, ‘On the rôle of the schools’, 18.

¹⁸⁹ Melanchthon, ‘On Astronomy and geography’, 117. Cf. Bellucci(1998b) 11-17 for the arguments for natural science that Melanchthon shares with the Wittenberg professor of physics John Velcurion.

¹⁹⁰ Melanchthon, *On Christian doctrine*, 2.30.67.

Chapter 3: discipline and disciplines

For Augustine, as for Melanchthon, one of the reasons why it is possible to find a genuine role for knowledge and learnedness while subscribing to a strong notion of the Fall, human sinfulness and the necessity of divine initiative in salvation is that even when God has approached the sinner, all problems do not stop. Augustine's battle against lust goes on after the *tolle, lege*. Moreover, even though Augustine is now sure that he believes in the right God, he still feels he does not really know this God. In his *Soliloquies* – dialogues between him and the voice of 'reason' of which he explicitly leaves undecided whether it comes from himself or someone else¹⁹¹ – he states that he wishes to know two things: God and the soul.¹⁹²

At the end of the first day of his dialogue with reason, Augustine exclaims that while he truly loves wisdom, he feels tortured by the fact that it still seems to reject him.¹⁹³ Reason's answer is telling: there is not just one way to wisdom, and each man can embrace it only "in accordance with his own health and strength". That is to say, just as there are some whose eyes are so strong that they can look at the sun and enjoy it, while there are others whose eyes are so weak that they will only flee strong light and turn to darkness. "So these eyes must first be exercised, and for their own sake must at first be restrained and then built up only gradually" – from dark things to ever more shiny things, then fire, until in the end these people, too, can enjoy the sun. "The best teachers do something like that to those who are eager for wisdom, and who can see, but not yet clearly. To reach it in a certain order is the work of great discipline; to reach it without this is a sign of barely good fortune."¹⁹⁴

It turns out that this 'discipline' is at least partially to be identified with actual learned disciplines:¹⁹⁵ knowledge of the arts is important because it lets the mind get accustomed to truth. Knowledge is relevant, then, precisely because Augustine is presently in a state of illness, in need of gradual healing – because of his sinfulness.¹⁹⁶ We will see a similar role for the disciplines in Melanchthon's thought, though here of course we will also pay extensive attention to the differences. If it is possible both for Augustine and Melanchthon to find a purpose for knowledge without subtracting from the

¹⁹¹ Augustine, *Soliloquies*, 1.1.1.

¹⁹² *Ibid.*, 1.2.7.

¹⁹³ *Ibid.*, 1.13.22.

¹⁹⁴ *Ibid.*, 1.13.23. Cf. Vessey(2005) on Augustine being the first one to formulate a large-scale theory that integrated the arts in a Christian programme of education (*ibid.*, 4-10). Otten(2009) uses Augustine's view on the necessity of being prepared for the truth as formulated in the *Soliloquia* to interpret the Christian tradition through a humanist framework: faith is not a simple result of immediate revelation, but also of *exercitatio mentis*. This interpretation risks stretching Augustine's optimism about human faculties and overstating the continuity between reason and faith, but the notion that mental development remains necessary even after conversion does not in itself belie Augustine's affirmation of divine initiative: the activity of spiritual healing and development remains in God's hand.

¹⁹⁵ Augustine, *Soliloquies*, 2.11.20

¹⁹⁶ "For the eye loves the darkness because it is not healthy, but it cannot see the sun unless it is healthy. And on that very point the mind is often mistaken: it thinks that it is healthy and is proud of itself, and then because it cannot yet see, it complains as if it were justified." (Augustine, *Soliloquies*, 1.14.25) In general, Augustine very often uses the image of bodily illness as a metaphor for the condition of the sinful soul. This confirms that God's grace does not work in opposition to nature, but serves to heal the natural powers of the soul – for Augustine, it is natural for the soul to see God, even though in our sinfulness it is impossible without divine help. Cf. Cary(2000) 63-76. This demonstrates once again how much Augustine identifies sinfulness with a condition of the will: our incapacity is never the fault of the *nature* of our soul, but of our corruption of it. "Augustine talks as if it is simply natural for the soul to see God. This does not mean he thinks it is easy or automatic, that it can happen without growth and discipline, hard work and virtue and righteousness, and above all the help of grace." (*ibid.*, 69)

severity of original sin and partly *because* of original sin,¹⁹⁷ the most important remaining question is what *kind* of knowledge they consider to fulfill that purpose. On this matter the differences between the two thinkers in their anthropology and their conceptualization of original sin will turn out to be crucial.

3.1 Augustine and the ascent to truth

When discussing the different views of Augustine and Melanchthon on the relevance of certain disciplines, it would be unwise to ignore their commitment to different schools of philosophy and accordingly different metaphysical concepts, anthropologies and psychologies. Put simply but not misleadingly, the philosophers that Augustine considers to be the most at harmony with Christianity are the Platonists; for Melanchthon, it is Aristotle who occupies the first place.¹⁹⁸

To be sure, both Augustine and Melanchthon subscribe to the thesis that Plato and Aristotle are themselves essentially in agreement,¹⁹⁹ and their opinions on certain philosophical questions do not always follow those of their favorite philosophers; but still, they leave no doubt as to whom they prefer in general. In his *Contra Academicos*, Augustine makes sure he dissociates the real Plato from the skeptical Academy that he is attacking, and characterizes Plato's uncontaminated doctrine as true.²⁰⁰ He goes on to place Platonism almost on a par with Christianity, stating that in his search for truth, man finds aid in both authority and reason, and that reason is surely to be found in the Platonists, who will therefore not be in conflict with the authority of Christ.²⁰¹ This is an early statement and quite strong even for Augustine, but in *de civitate Dei*, he still claims that "no one has come closer to us than the Platonists."²⁰²

Melanchthon is usually quick to connect Aristotle to the wisdom of Plato, by pointing out that the student would not have stayed with the master for twenty years if he had not respected him;²⁰³ but he finds Augustine "absurd when he says that he has found the doctrine of the Christians in the Platonists, except for that one part: 'the Word became flesh'".²⁰⁴ This he says in a disputation in which he also rejects Stoicism and Epicureanism from a Christian perspective, and concludes in favor of Aris-

¹⁹⁷ Melanchthon, 'De laude vitae scholasticae oratio' (1536) in: Melanchthon, *Texte*, 204-221 explicitly talks about school life and getting used to loving the truth as a reflection of the prelapsarian condition (*cf.* esp. 207-209).

¹⁹⁸ Frank(2001), though recognizing that Melanchthon is a self-proclaimed *homo peripateticus*, nevertheless identifies a neo-Platonic heritage in his theology – especially Plato's concept of God is superior to that of Aristotle (*ibid.*, 5-12). *Cf.* also Frank(1995) 12-37. I am far from worried about these restrictions upon the extent to which Melanchthon qualifies as a pure 'Aristotelian': indeed Aristotelianism in the Renaissance denotes not some monolithic and inflexible orthodoxy, but a rather eclectic tradition (Schmitt(1983) 89-108; Schmitt(1975) 489-495). In the face of this diversity and flexibility of Aristotelianism, it is of course difficult to define what it means to be an 'Aristotelian' in the Renaissance. Grant(1987) tries to theorize his way out of that problem by a 'genetic' approach to it – there is a population of Aristotelianisms which have their common ancestor in Aristotle, and all their ideas count as Aristotelian. His attempt seems to work mainly to transfer the problem to the criteria by which someone can be said to belong to this population. In the current argument, Aristotelianism is not meant to refer to specific natural philosophical doctrines, but to a more general view on science, *i.e.* a this-worldly orientation of knowledge as opposed to a transcendental orientation. Even so, Melanchthon's self-qualification as Aristotelian is not meant to serve as proof that he subscribes to this view of science.

¹⁹⁹ Augustine, *Against the Academics*, 3.19.42; Melanchthon, 'On Plato', 197-202.

²⁰⁰ Augustine, *Against the Academics*, 3.18.41.

²⁰¹ *Ibid.*, 3.20.43 On faith and the positive evaluation of reason in Augustine's thought, *cf.* Rist(2001).

²⁰² Augustine, *City of God*, 8.5. The main reason why Augustine gives the first prize to the Platonists here is, typically yet interestingly, that of all Greek philosophical schools they pay least attention to the body in their theology.

²⁰³ Melanchthon, 'On Aristotle' in: Melanchthon, *Orations*, 204-211 (1537) 206-207

²⁰⁴ Melanchthon, 'On the distinction between the Gospel and philosophy' (1527) in: Melanchthon, *Orations*, 23-26: 25.

title: “Aristotle’s philosophy searches for demonstrations most assiduously, and therefore it surpasses all sects by far.”

Plato and Aristotle come with different views on science and truth.²⁰⁵ For Aristotle, science is primarily concerned with explaining – with reflecting the system of nature in a system of science;²⁰⁶ for Plato, on the other hand, science is supposed to point to the transcendental. This has important implications for the focus of investigation: it leads, in his dialogues, to a characterization of right science which turns out to be quite devoid of actual interaction with ‘nature’ in our sense of the word.

In the sixth book of the *Republic*, characteristically in the context of a conversation about (philosophical) virtue, the most important question is brought up: what is the form of the good?²⁰⁷ Socrates humbly admits that he does not know,²⁰⁸ but provides an analogy instead: the good relates to truth and knowledge as the sun relates to sight.²⁰⁹ This analogy appeals to a fundamental distinction that Socrates proceeds to make: “there are these two things, one sovereign of the intelligible kind and place, the other of the visible [...] you have two kinds of things, visible and intelligible.”²¹⁰ He likens it to a line divided into two sections.²¹¹

These two distinct realms, the visible and the intelligible, are themselves in turn divided into two according to increasing clarity: images are less clear than the originals, and accordingly imagination is below belief in the visible domain.²¹² Likewise, the intelligible domain is organized in two distinct modes of cognition:²¹³ one “is forced to investigate from hypotheses, proceeding not to a first principle but to a conclusion.”²¹⁴ This pertains to mathematics: “you know that students of geometry, calculation, and the like hypothesize the odd and the even, the various figures, the three kinds of angles, and other things [...] going from these first principles, through the remaining steps, they arrive in full agreement.”²¹⁵

Plato seems to refer to the axiomatic structure of mathematical theorizing, which has to take for granted a set of departure points without being able to justify them separately: “it cannot reach beyond its hypotheses”.²¹⁶ Reaching ‘beyond’ is the responsibility of the second mode of cognition, dialectics, which makes use only of forms, “enabling it to reach the unhypothetical first principle of everything.”²¹⁷ This sketch allows us to position mathematics more precisely on the scale of knowledge: it is the lower of two kinds of intellectual powers. However, its direction is clear: it is aimed at pure thinking.

“although [mathematicians] use visible figures and make claims about them, their thought isn’t directed to them but to those other things that they are like. They make their claims for the sake of the square itself and the diagonal itself, not the diagonal they draw [...] They seek] to see those others themselves that one cannot see except by means of thought.”²¹⁸

²⁰⁵ The following characterization I have found in Gaukroger(2006) 17-24.

²⁰⁶ Falcon(2005) 31; cf. Grant(2006) 33-55 on Aristotle’s science in general, and *ibid.*, 165-190 on his reception in medieval universities.

²⁰⁷ Plato, *Republic* VI, 504e-505a.

²⁰⁸ *Ibid.*, 506c-e.

²⁰⁹ *Ibid.*, 508d-e.

²¹⁰ *Ibid.*, 509d.

²¹¹ *Ibid.*

²¹² *Ibid.*, 509d-e.

²¹³ For this cf. also Mueller(1992) 184-188.

²¹⁴ Plato, *Republic* VI, 510b.

²¹⁵ *Ibid.*, 510c.

²¹⁶ *Ibid.*, 511a.

²¹⁷ *Ibid.*, 511b.

²¹⁸ *Ibid.*, 510e.

Geometry may need to use the visible and therefore be less perfectly intellectual than dialectics; its aims are consistently portrayed to be *above* the visible world, and therefore it must be placed squarely on the intelligible side of the dichotomy. This intellectual function Plato maintains in the next book, when his Socrates proceeds to describe what he thinks vital to the education of the philosopher-ruler in the ideal state.

The first subject that Socrates includes in the philosophical curriculum is arithmetic or calculation, which in many ways is “useful for our purposes, provided that one practices it for the sake of knowing rather than trading.”²¹⁹ He explains that “it leads the soul forcibly upward and compels it to discuss the numbers themselves, never permitting anyone to propose for discussion numbers attached to visible or tangible bodies.”²²⁰ In other words, it is worthwhile because, and in so far as it is, abstract.

The same holds for geometry: “if geometry compels the soul to study being, it’s appropriate, but if it compels it to study becoming, it’s inappropriate.”²²¹ That is to say: it has to be employed “for the sake of knowing what always is, not what comes into being and passes away.”²²² Socrates’ conversation partner typically agrees: “that’s easy to agree to, for geometry *is* knowledge of what always is.”²²³ Mathematics seems useful not because it leads to understanding of physical nature, but precisely because it leads *away* from physics – in a way, it bridges the ontological distinction between the visible and the intelligible, because (as we have seen) it uses visible images, but it is a one-way bridge: knowledge of the eternal is not supposed to be applied to the changeable.

After dealing with solid geometry, Socrates indeed makes this very clear when talking about the fourth important subject: astronomy. “As it’s practiced today by those who teach philosophy,” he says, “it makes the soul look very much downward.”²²⁴ Astronomy in its conventional sense is, after all, dealing with visible things, no matter how ‘high’ in the sky they are, and they are by definition not an object of true understanding: “if anyone attempts to learn something about sensible things, whether by gazing upward or squinting downward, I’d claim – since there’s no knowledge of such things – that he never learns anything.”²²⁵

This shows itself in that the heavenly bodies as visible “fall far short of the true ones”, the true ones being “motions that are really fast or slow as measured in true numbers, that trace out true geometrical figures”.²²⁶ The crux of the matter remains that Plato insists on knowledge being in all respects eternal, and as the bodily realm is by its nature changeable, the domain of ‘becoming’ instead of ‘being’, this eternal is necessarily the abstract, devoid of physical content:

“if, by really taking part in astronomy, we’re to make the naturally intelligent part of the soul useful instead of useless, let’s study astronomy by means of problems, as we do geometry, and leave the things in the sky alone.”²²⁷

Similarly, Socrates ridicules harmonics in so far as it puts “ears before understanding”,²²⁸ while it should of course occupy itself exclusively with investigating ideal relations.

²¹⁹ Plato, *Republic* VII, 525c-d.

²²⁰ *Ibid.*, 525d.

²²¹ *Ibid.*, 526e.

²²² *Ibid.*, 527b.

²²³ *Ibid.*

²²⁴ *Ibid.*, 529a.

²²⁵ *Ibid.*, 529b.

²²⁶ *Ibid.*, 529c-d.

²²⁷ *Ibid.*, 530b-c. Cf. Mueller(1992) 193-194 about the question how Plato understood the relationship between astronomical phenomena and the hypotheses of the ‘true’ astronomer.

²²⁸ Plato, *Republic* VII, 531b.

The mathematical sciences are only useful in so far as they are *not* about the world of sensory experience but are used as a prelude to the exercise of pure intellect by means of dialectic;²²⁹ based on the *Republic*, it is hard to conclude that Plato considers nature (as the sensible world) to be a worthwhile or even a possible object of mathematical description. Not only is it irrelevant to the philosopher, who focuses on intellect only, but it is also too chaotic. Socrates voices the belief that the craftsman has arranged all bodies “in the finest way possible for such things”,²³⁰ but it is naïve to think that they will “never deviate anywhere at all [...] since they’re connected to body”.²³¹

This Platonic intuition, that real science is a move *away* from the world of matter towards the world of ideas, because knowledge is about that what is and not that what becomes and passes, is echoed by Augustine. As said already, in his search for wisdom about God and the soul, reason has demanded a certain discipline of him. Truth, reason teaches Augustine, is eternal; it does not pass away.²³² Truth must exist somewhere, but because it is eternal, it cannot exist in body, because bodies die, and it is impossible for something eternal to be dependent on something mortal.²³³ In the next book we learn that the ‘something’ in which truth is, is the soul – in fact, the argument is meant to convince Augustine, who (as we have seen before) really loves existence, that his existence is eternal.²³⁴ The argument that proves this is, put simply, that the disciplines are in the soul, that the disciplines are truth, and that since truth is eternal, therefore the soul must be.²³⁵

The point is now not Augustine’s proof of the eternity of the soul, however, but the part of the argument about the relation between truth and body. Augustine is positive that whatever is really true is always true, and is therefore independent from body. This is also reflected in the didactic choices that reason makes for him: the primary reason why Augustine’s mental eye is still unhealthy is that it clings too much to bodily life, and that he is too proud to admit it.

“Don’t you remember in what carefree tones we proclaimed yesterday that there was no diseased state now to hinder our progress, and that we loved nothing except wisdom, and that we did not wish for or seek other things except for its sake?²³⁶ And [...] how dirty, disgraceful, abominable and horrible the very idea of embracing a woman seemed to you to be? And yet as we lay awake during the past night and thought back over the topics discussed, you realized how the imagining of those blandishments and that bitter sweetness titillated you.”²³⁷

²²⁹ Ibid., 531d-532c. White(2009) 231-233 confirms this interpretation, going on to consider the possibility that there is a relation between the content of mathematics and ethical understanding (ibid., 234-236). The precise relation between ‘pure’ mathematical sciences and knowledge of the Forms and the Good seems to be more open to doubt than the relation between these sciences and physical reality.

²³⁰ Plato, *Republic* VII, 530a.

²³¹ Ibid., 530b. Cf. Cassirer(1932) 88-92 for an assessment of the Platonist rejection of immediate embodiment of the ideal in the material, followed by an interesting account of the role that Platonism nonetheless has in the development of the new science, leading in a somewhat dialectic relation with the empiricist natural philosophies of the Renaissance to an attempt to grasp reality in a *Logos* that now takes the shape of universal laws (ibid., 95-104).

²³² Augustine, *Soliloquies*, 1.15.28

²³³ Ibid., 1.15.29

²³⁴ Ibid., 2.1.1. Augustine later abandons this rather bold argument; Cary(2000) 95-102 notes that the argument collapses on the statement that God is inseparably in the soul, for then God’s existence would be as dependent on the immortality of the human soul as that of the disciplines. Nonetheless, even though Augustine abandons this proof of immortality, he does not abandon the project of searching for intelligible truth within the soul (ibid., 102-104).

²³⁵ Augustine, *Soliloquies*, 2.13.24. On the definition of the disciplines as true, as well as the association (already present in Cicero) of ‘disciplina’ with moral development and order, cf. Klingshirn(2005) 117-128.

²³⁶ Referring to Augustine, *Soliloquies*, 1.9.16-1.11.19.

²³⁷ Ibid., 1.14.25

Augustine is still haunted by lust, reason points out, and it is probably because God wants to show him to what extent he is still in need of treatment.

What Augustine needs to do is to flee from everything that is related to the senses, and this is true as well when it comes to knowledge. Disciplines like dialectics – which contains the fundamental principles for definitions and classifications – or geometry are eternally true;²³⁸ in fact, for Augustine it is part of the very definition of a discipline that it is eternally true, that it is in a very real sense an instance of truth itself.²³⁹ There can be true bodily things, like a real tree, but since they can pass away, they are by definition not truth.²⁴⁰ The disciplines are, and therefore their content is completely free from body; Augustine's reasoning implies that everything that the disciplines contain is already present in the non-material soul.²⁴¹ Those who are well trained in the 'liberal disciplines' "draw out, one might even say, dig out, in the course of learning such pieces of knowledge which were without doubt buried within them in forgetfulness."²⁴² The disciplines, in short, are there to remind the soul of the truth that it already contains but that it is unable to see: though the sinful soul may be weakened and blinded, it can obviously never help itself by looking to the world of becoming – to what we call nature. Instead, it must familiarize itself with the eternal in itself again, by shunning lust in particular and the body in general.²⁴³

Though Melanchthon certainly believes that the soul has certain kinds of knowledge pre-inscribed on itself independently from any contact with the external world,²⁴⁴ he does not give that the Platonic meaning that Augustine gives it,²⁴⁵ and as we will see, he will certainly never use it to prove that only knowledge about eternal truths independent from bodily nature counts as a true discipline of the soul. His opinion about the relevance of certain disciplines, though similar in its purpose of dealing with the results of the fall, is very different.

3.2 Melanchthon's call for discipline

The first and foremost reason why Melanchthon is a self-declared Peripatetic, is because for him Aristotle signifies method and systematic thinking. "I certainly think," he says, "that a great turmoil of doctrines would follow if Aristotle were neglected, who is the one and only master of method. And no

²³⁸ Ibid., 2.11.21; 2.18.32. Heßbrüggen-Walter(2005) argues that the status of dialectics and its relation to eternal truth change under influence of Augustine's conflict with the Arianists, with whom he initially shares a view of dialectics as a science delivering ontological truth, a discipline providing us with true insight in the structure of being through propositional logic. In order to diminish their (and thereby his own) philosophical pretensions without having to take the anti-philosophical position of Ambrose, he develops a more modest view of dialectics as still being a divinely instituted art with laws to which the world conforms, but also a purely formal art which needs to be supplied with true propositions from without (through Scripture, that is). In *de doctrina Christiana* 2.31.48-2.35-53 Augustine indeed separates the validity of logical reasoning from the truth of propositions.

²³⁹ Augustine, *Soliloquies*, 2.11.19-21.

²⁴⁰ Ibid., 1.15.28.

²⁴¹ This is the well-known Platonic doctrine of *anamnesis*, of course, as explained in *Meno* and *Phaedo*. Augustine's specific argument for the immortality of individual souls all the more strongly requires the eternal presence of all genuine knowledge. (But cf. Conybeare(2005), who attempts to ascribe to Augustine an integration of permanence and transience, in relation to the integration of divinity and embodiment.)

²⁴² Augustine, *Soliloquies*, 2.24.35.

²⁴³ Somewhat unfortunate for the argument I am trying to make is that Augustine would later abandon his project to write about the disciplines in their relation to Christianity, and would judge that he had attributed too much to the liberal arts (Shanzer(2005) 104-109). Then again, the *Soliloquies* are extremely optimistic about the disciplines. The point remains that *in so far* as Augustine sees a role for the arts in the process of spiritual development, it can only be those arts that refer to eternal, intellectual truths. In the end Augustine shares the Platonic or Parmenidean intuition that change cannot be an object of knowledge.

²⁴⁴ E.g. Melanchthon, 'Gottes Bild im Menschen: Zerstörung und Wiederherstellung' in: Melanchthon, *Texte*, 80-89: 81-83, on man as an image of God (albeit a corrupted image now, as Melanchthon immediately goes on to affirm).

²⁴⁵ But cf. Frank(1995) 86-99.

one can become acquainted with the method by any other way than by getting some practice in that type of Aristotelian philosophy.”²⁴⁶

The importance of method is a recurring motif in Melanchthon’s work.²⁴⁷ One reason is that he considers methodical thinking to be the answer to skepticism: in an oration on the life of Galen, he praises Galen for having debunked the Pyrrhonians of his time by his philosophical knowledge of geometry and demonstrations.²⁴⁸ It is noteworthy that the reason why Melanchthon finds it useful to supplement Aristotle with mathematics is not that disciplines like geometry point to higher, transcendent truth, but that they are instruments of certainty, like syllogisms.²⁴⁹

The other reason why method is so important is that it can help mediocre minds to advance in an art without requiring leaps of genius of them. What Melanchthon finds lacking in Plato is that though he is very eloquent and formulates many wise thoughts, “he did not hand on an art completely or in order. Furthermore, the greatest part of his works is ironical, a form which is more appropriate for mocking than for teaching.” Aristotle, on the other hand, “wanted to be mindful of the benefit of those who study, and assist schools.”²⁵⁰ Melanchthon defends the art of dialectics for this same reason, that it helps the less outstanding students.²⁵¹ But not only for that reason, to be sure, for methodical thinking is as important for those who seem to be intelligent enough to do without it: after all, for them, too, it is important to see “the causes of certitude, that is, why the beliefs we embrace are fixed, and why what we construct needs to be consistent”, and on the other hand to

“refute deceits by showing the faulty places and the causes of the deceits, and to distinguish the parts of arguments by the naming of the arts, as if by unfailing marks, so that the adversary feels himself held in check by these bonds – like the captive Proteus – and is finally led to the precepts of certainty, called criteria, where he recognizes that he is overcome and condemned by the divine voice.”²⁵²

Here we see the association of certainty and method with something else, namely ‘being hold in check’, being bounded. Indeed, Melanchthon finds moral fault with those who trust in their natural disposition so much that they think themselves above the boundaries of method: after all, “it also happens to the clever that – either through their confidence or by flattering their own intellect – they ramble too long in discussions, play their tricks and defend and strengthen false ideas.”²⁵³ The art of dialectics is there precisely to prevent this loose behavior: “the art is necessary which instructs and assists mediocre intellects, rules and forces within limits those that are outstanding and accustoms one to seeking and loving truth.”²⁵⁴

Education in the arts, then, is a disciplining enterprise – especially those with great trust in their natural capacities have to be ‘forced’ within limits. This enterprise has the same function both in the domain of truth and that of morals:

“for certainly, just as unrestrained natures hate the bonds of law in morals, many flee the precepts of the arts as though they were a prison. And just as in life they want license to be

²⁴⁶ Melanchthon, ‘On Aristotle’, 211.

²⁴⁷ As it is for humanists and Aristotelians in general in this period, according to Vasioli(1988) 71-73.

²⁴⁸ Melanchthon, ‘On the life of Galen’ (1540) 216-217.

²⁴⁹ Breen(1947) on the foundations of certainty according to Melanchthon (on which cf. Melanchthon, ‘Erkenntnistheorie – Gewißheitskriterien’ (1553) in: Melanchthon, *Texte*, 28-33).

²⁵⁰ Melanchthon, ‘On Aristotle’ (1537) 210.

²⁵¹ Melanchthon, ‘Dedicatory letter to the *Questions on dialectics*’ in: Melanchthon, *Orations*, 84-89: 84.

²⁵² *Ibid.*

²⁵³ *Ibid.*, 85.

²⁵⁴ *Ibid.*

granted to all their desires, so also in religion, philosophy and the forum they love boundless liberty, which is ruinous both to themselves and to the Church of God in defending and rejecting ideas.”²⁵⁵

There is a soft echo of the pride that has caused the Fall in this warning: people have to be protected against their own pride; and against the self-satisfied opinion that autonomy in matters of either truth or morals is best, Melanchthon believes that it is best to be aided by external rules.

What Melanchthon values most in intellectuals is not just their talent – which is ever a gift of God – but their diligence.²⁵⁶ Explicitly, Melanchthon repeats time and again that virtue itself is not something that can be cultivated without effort.²⁵⁷ Both virtue and knowledge demand discipline, and the good thing about the different disciplines and their methods is that occupying oneself with them is in itself associated with personal discipline – there is an obvious correlation between the extent to which a person immerses himself in the arts, and his capacity for personal restraint and civilized behavior.

Dialectics, then, is an instrument of disciplining one’s own thinking, and therefore it is associated with an orderly mental composition. But for Melanchthon, it is not only philosophical argumentation that serves this purpose; within the disciplines that are immediately concerned with the correction of mental judgments, the humanist includes not only logics but anything related to language – including rhetoric, which Melanchthon sometimes considers to be separated only in name from dialectics.²⁵⁸

This is a verdict different from Augustine’s, who reasons that “fine style does not make something true, nor has man a wise soul because he has a handsome face and well-chosen eloquence.”²⁵⁹ Augustine strictly separates form from content, in part because he has previously allowed himself to be misled by the simple and unpolished words of Scripture into believing that it had nothing valuable to say.²⁶⁰ Augustine does not subscribe to the other conceivable opinion, that the humble language of Scripture is a point in its favor: “again, a statement is not true because it is enunciated in an unpolished idiom, nor false because the words are splendid.”²⁶¹ The point is simply that style is irrelevant to truth. Therefore, Augustine is not against rhetoric as an art: “since by means of the art of rhetoric both truth and falsehood are urged, who would dare to say that truth should stand in the person of its defenders unarmed against lying [...]?”²⁶²

Melanchthon rather directly confronts the idea that form and content are to be wholly separated: “I know that there are those who separate elegance from the method of speaking correctly, and believe that it does not matter – as long as they declare the intent – what kind of speech they use.”²⁶³ But though Melanchthon does not argue for superfluous ornamentation, he does consider elegance to be essential to speech: as with everything, if things are out of proportion, they become “monstrous and silly.”²⁶⁴ The point is brought home by a comparison with visual art: “does the painter imitate the body correctly if he guides his brush without any method, and if his hand is moved at random and the lines

²⁵⁵ Ibid.

²⁵⁶ E.g. Melanchthon, ‘On Johannes Regiomontanus’ (1549) in: Melanchthon, *Orations*, 236-247: 238; Melanchthon, ‘On the life of Rudolf Agricola’ (1539) in: Melanchthon, *Orations*, 227-235: 234.

²⁵⁷ Melanchthon, ‘In praise of the new school’ (1526) in: Melanchthon, *A reader*, 59-63: 60; Melanchthon, ‘On the study of languages’ (1533) in: Melanchthon, *Orations*, 29-37: 35.

²⁵⁸ Melanchthon, ‘On the studies of youth’, 50-53.

²⁵⁹ Augustine, *Confessions*, 5.6.10.

²⁶⁰ Ibid., 3.5.9. In *De doctrina Christiana*, he formulates it this way: that the Christian canon is eloquent in a way that fits only it (Augustine, *Christian doctrine*, 3.6.9).

²⁶¹ Augustine, *Confessions*, 5.6.10.

²⁶² Augustine, *Christian doctrine*, 3.2.3.

²⁶³ Melanchthon, ‘Praise of eloquence’ (1523) in: Melanchthon, *Orations*, 60-79: 62.

²⁶⁴ Ibid., 63.

are not drawn with art? [...] just as we represent bodies by colors, we represent the sentiment of our mind by speech.”²⁶⁵ Methodical speech, therefore, is not an esthetic addition to an independently functioning core; without it, it is simply impossible to convey orderly thinking.

The study of rhetoric or eloquence is not only indispensable in order to be able to communicate orderly thinking, however; it is also an instrument in shaping orderly thinking.²⁶⁶ “Our ancestors saw that those two – the knowledge of speaking well and the mind’s judgment – are connected by nature.”²⁶⁷ There are two reasons why the *studio dicendi* works to sharpen the mind: first, studying the best examples of eloquent speech means studying the ancients, and thereby studying authors who are exemplary not only in their formulations but also in their intellect, familiarity with whom is therefore beneficial in every respect.²⁶⁸ But second, and more fundamentally, exercising oneself in speaking and writing is in itself a way of exercising the intellect: reading the ancients is very profitable, but “unless you add to this the habit of writing and speaking you will be able neither to understand with sufficient incisiveness their opinion, nor to conceive in your mind the fixed rule for judging and deliberating.”²⁶⁹

Rhetoric is also important primarily for its disciplining influence upon the mind, then, and Melanchthon bravely maintains – interestingly, since we are currently studying an argument written down only two years after that radically anti-intellectualist first edition of the *Loci communes* – that this is not an expendable advantage, but on the contrary indispensable to theology as well. There are people who “hinder the course of good men; these deny that the knowledge of the arts of speaking contributes to the study of theological writings.”²⁷⁰ For this reason, “nowadays the name of theology is only a pretext for sloth”,²⁷¹ for in fact knowledge of the right usage of language (and Melanchthon here also includes knowledge of ancient languages) is surely necessary for the right interpretation of Scripture – “for what other reason did the sophists devise a new kind of theology, having banished the Holy Scriptures, than because they did not understand their language and method of arguing?”²⁷²

Many students advance to the higher faculties like theology before being thoroughly schooled in arts like rhetoric, which is foolish even from the perspective of efficiency: Melanchthon compares them to a wood-carrier deciding to pull away the logs from the bottom of the pile.²⁷³ This is a point about which Melanchthon feels very strongly, not only with respect to rhetoric but to all the arts: whatever is learned, is best learned in a certain order, and even if some disciplines are elevated above all others, the lower disciplines should not be neglected. “If some admirer of the sky and the stars [...] wanted to remove water from the nature of things, because it is no match for the brightness of the stars, would we not say that he is mad?”²⁷⁴ As suggested already, people who neglect the lower disciplines in favor of the higher, in doing so, are displaying not only an intellectual but also a moral error:

²⁶⁵ Ibid.

²⁶⁶ On an assessment of the importance of the humanist principle that language is not just an expression of thought but an instrument of it, cf. Cassirer(1927) 3-6. Cassirer connects this to the development of empirical science in a dialectical process: the humanist ideal is in the end self-destructive, since the languages on which it focuses are not an expression of ‘developing thought’, and they have to be left behind in the end.

²⁶⁷ Ibid., 65.

²⁶⁸ Ibid., 66.

²⁶⁹ Ibid., 70. The point is, as Frank(1995) 74 summarizes, that “die Welt nicht als eine Welt von Sachen (res), sondern als eine Welt der zu Wort gewordenen Sachen verstanden wird”, the implication being that language is not simply the sign of intellectual understanding but is itself the domain where understanding takes place. Importantly, this view of understanding has an affinity with what Frank calls the ‘Ent-Ontologisierung des Natur- bzw. Wirklichkeitsbegriffs’: everything that is is not viewed anymore as an expression of being itself which is as such directly accessible to reason, but as a thing (*res*): only things, mediated through language, are the object of human knowledge (Frank(1995) 71-81).

²⁷⁰ Melanchthon, ‘Praise of eloquence’, 73.

²⁷¹ Ibid., 74.

²⁷² Ibid., 76.

²⁷³ Ibid., 77.

²⁷⁴ Melanchthon, ‘On the order of learning’ (1531) in: Melanchthon, *Orationes*, 3-8: 5.

those “young men who, because of their idleness, flee the toil of learning and rush straight into the highest professions” are “denuded Solons, without grammar, without dialectics, knowledge of religion or philosophy, and finally without any humanity.”²⁷⁵

Melanchthon mentions religion here, for in the end there is no doubt that this lack of discipline is harmful to the Church. “The Church has need of liberal education, and not only of the knowledge of grammar, but also of the skill of many other arts and of philosophy.”²⁷⁶ If those are abandoned, the result is chaos:²⁷⁷ ignorance, especially in matters of theology, leads to discord, and discord leads to doubt, to which human minds easily fall prey. The end-result is that “all of religion is cast aside in hatred, and their minds become impious and Epicurean.”²⁷⁸

Melanchthon is careful enough not to mingle philosophy and theology, but, he says, “I want to help the theologian in the management of method.”²⁷⁹ A theology that is not held in check by such method, that is not disciplined by knowledge – in short, an ignorant theology – will itself be confused and will spread chaos. The primary example of this are not so much the scholastics as the Anabaptists:

“in these recent years we have seen some who were practicing theology in an unholy way, madmen with fanatical opinions, punished for their errors. For you will remember Müntzer and the Anabaptists and other monsters of that kind. Consider those mad in the same way, who disturb the chorus and the harmony of the arts by neglect of, and contempt for, the lower arts.”²⁸⁰

Right religion is associated with discipline, method, and the arts, then; the opposite, unchecked fanaticism and religious error, is associated with ignorance and sloth – in terms of psychology, the main issue is whether the student is prepared to let his mind be molded by the structure that the arts represent, or whether he proudly chooses to let his own subjective fancy prevail. Whether he desires humility and discipline, that is, or arbitrary freedom. “For we see that in our age the fanatical beliefs of the Anabaptists originated only from the uneducated and the self-educated.”²⁸¹ Self-education is as bad as no education.

From that perspective, Melanchthon’s reminder that these ‘madmen’ with their unholy theology have been punished is noteworthy. In Melanchthon’s thought, Christian humility is allied not only to diligent study and learnedness, but also to the state, which is a protector of the disciplines necessary for right religion: “pious princes must not only establish schools, but they must also choose the kind of teaching, as if it were a nursery-garden that is approved by a certain and strong authority, and pay attention that the nursery be not corrupted.”²⁸²

That the disciplining power of the princes is to be conceived in a similar way as God’s disciplinary power becomes clear when Melanchthon discusses the importance of the study of law – the academic discipline with the closest ties to the interests of the state, of course. Melanchthon emphasizes the importance of right lawgiving in the face of human sinfulness, even though “amidst such human weakness and such disorder their authority is often either neglected or suppressed”: the point is that “God gave humankind the political art, and this teaching, so that as far as possible, they might bend

²⁷⁵ Melanchthon, ‘On the study of languages’, 34.

²⁷⁶ Melanchthon, ‘On philosophy’ (1536) in: Melanchthon, *Orationes*, 126-132: 126.

²⁷⁷ *Ibid.*, 127.

²⁷⁸ *Ibid.*, 128.

²⁷⁹ *Ibid.*, 130.

²⁸⁰ Melanchthon, ‘Order of learning’, 5.

²⁸¹ Melanchthon, ‘On the merit of studying theology’ (1537) in: Melanchthon, *Orationes*, 182-187: 185.

²⁸² *Ibid.*, 186. For this reason, Melanchthon is not above using state censorship as an instrument against his intellectual opponents, and moving John of Saxony to outlaw the works of Zwingli and the Anabaptists (Grendler(1988) 43-45).

those who can be improved towards justice, and curb wrongful impulses.”²⁸³ If human princes fail to enforce good laws, chaos ensues:

“do you think that it is by chance that the world has already been subjected to the barbarous tyranny of the Turks, unlike any other before? This has not happened by chance at all, but this miserable prison has to restrain and hold in check the madness of men who do not allow their behavior to be curbed by any laws, and who want to be licensed to practice wantonness as they please, like wild beasts. Oh deplorable negligence of the princes! They should have remedied these ills in order to call the unrestrained crowd back to moderation by the most severe punishments.”²⁸⁴

State, religion or Church, and schools all share a responsibility of ‘curbing’ the wild and mad minds of the subjects.²⁸⁵

This attitude towards the state is markedly different from that of Augustine, who in *de civitate Dei* rather emphasizes the independence of the Christian Church from the Roman Empire. Though the Empire is far from irrelevant in God’s plan,²⁸⁶ and the self-sacrifice of the Romans for their nation and empire foreshadow in a sense the religious virtues of the Christian martyrs,²⁸⁷ there is no direct connection between the worldly success of a state and the religious well-being of its leaders and population.²⁸⁸ The occasion for *de civitate Dei* is in fact the sacking of Rome, an event symbolic of the decline of the Western Empire and interpreted as such in its time. Augustine begins to comment that in the midst of all the atrocities, the churches have functioned as harbors of safety²⁸⁹ – the peace that Christ brings transcends the power of the Roman Empire.²⁹⁰

Of course, to account for the different attitudes of our two theologians we hardly need to refer to subtle intellectual differences: they simply live with different political realities. Augustine’s world is that of a falling superpower, Melanchthon’s that of the gradual development and consolidation of the power of early modern states.²⁹¹ Yet Melanchthon’s positive judgment of state power is not the only option: a far more critical attitude is possible as well, but it is taken primarily by the radical reformers, in alignment with their calls for drastic social and religious change.²⁹² It is partly because Melanchthon associates their wrong religious beliefs and their uneducated ideas with their disobedience to the princes that he assigns to the princes this duty to discipline their subjects.²⁹³ order and disorder tend to affect everything around them, and law and politics is another area where order has to be defended. The alternative is Anabaptism and Peasants’ wars.

And to be sure, apart from the negative ideal of punishing disorder, Melanchthon ascribes to the princes the positive duty to support actively the infrastructure of knowledge. “The faithful teachers

²⁸³ Melanchthon, ‘On the merit of laws’ (1543) in: Melanchthon, *Orations*, 175-181: 178.

²⁸⁴ *Ibid.*, 180.

²⁸⁵ Melanchthon, ‘On the rôle of the schools’, 15.

²⁸⁶ Augustine, *City of God*, 4.2.

²⁸⁷ *Ibid.*, 5.13.

²⁸⁸ *Ibid.*, 5.4-26.

²⁸⁹ *Ibid.*, 1.1.

²⁹⁰ That Augustine does not value the political ideal of the Roman Empire very highly does not, to be sure, withhold him from appealing to the state to repress competing forms of Christianity, like Donatism (Frend(1952) 227-243).

²⁹¹ On the early modern state in this period, Gunn(2001). Cf. Rice(1994) 110-145.

²⁹² Hillerbrand(1988) 26-30. Cf. Mullett(1980) esp. 1-32 on the alignment of radicalism with resistance against new monarchical national power structures, and with representative or theocratic institutions.

²⁹³ On the ambiguous attitude of the magisterial reformers towards resistance against legal authority, cf. Chadwick(2001) 315-350.

should also be given decent wages,²⁹⁴ though they do not need excessive wealth in order to do their jobs right. Melanchthon provides historical examples to connect the best and most successful rulers of earthly kingdoms to the support of learnedness: Alexander the Great was happy to have Aristotle, who “wrote many works for Alexander, so that, being victorious, the latter would provide the states with laws, jurisdiction, judgments and discipline.”²⁹⁵ And in return for this diligence, Alexander displayed considerable generosity by sending him 800 talents to finance his research – “for that, too, is regal – to embellish the state with arts and education.”²⁹⁶

3.3 Nature and discipline

To the benefit of political justice, Melanchthon also recommends geometry: apparently there is a kind of geometrical ‘equality’ in the best political systems, an affinity between geometry and the right order. Not only does geometrical proportion work against democracy (the ‘wantonness of the people’), but also against tyranny – mathematical order does not simply inspire civic obedience, but it also helps the rulers to perfect the system.²⁹⁷ Here, too, order or disorder in politics, knowledge and morals are connected: “therefore, when students read that Platonic inscription – *ageōmetrōs oudeis eisisitō* – they should remember that they must take upon themselves geometrical equality in morals.”²⁹⁸

There is, however, another important reason why geometry, and its mathematical sister arithmetic, have to be practiced, and in following Melanchthon here it will become clear how he differs from the Platonic intuition about the role of mathematics, and from Augustine’s judgment about the role of the disciplines. To be sure, Melanchthon refers to Plato’s metaphor in the *Phaedrus*, where the fall of the souls is pictured as a result of the loss of their wings,²⁹⁹ and Melanchthon goes on to identify these wings with arithmetic and geometry – those who “desire to behold the things that are best and most admirable and worthy of knowledge, should attach those wings, that is, arithmetic and geometry, to themselves.”³⁰⁰ Melanchthon buys in on the Platonic idea that mathematics is in some way ‘elevating’. But how?

“Carried up to heaven by their help, you will be able to traverse with your eyes the entire nature of things, discern the intervals and boundaries of the greatest bodies, see the fateful meetings of the stars, and then understand the causes of the greatest things that happen in the life of man.”³⁰¹

Contrary to what Socrates demands in the *Republic*, and contrary to how Augustine suggests mathematics should be used, Melanchthon envisages mathematics in its most eminent role not as a stepping-stone for the retreat from the world, but as an instrument for certain understanding of the world – and then especially the heavenly bodies.

Melanchthon’s interest in mathematical astronomy is genuine and not without meaning for the canonical history of the scientific revolution: the circle around Melanchthon is relatively receptive to the Copernican model, though Melanchthon would always reject a realistic interpretation of heliocen-

²⁹⁴ Melanchthon, ‘On the rôle of the schools’, 16.

²⁹⁵ Melanchthon, ‘On Aristotle’, 208.

²⁹⁶ Melanchthon, ‘On Aristotle’, 208. Other princes involved in the support of knowledge are Charlemagne (Melanchthon, ‘Studies of youth’, 48-50), Frederick II, Caesar and Charles V (Melanchthon, ‘On astronomy and geography’, 113-114).

²⁹⁷ Melanchthon, ‘Preface to Johannes Vogelin’s *Book on the elements of geometry*’ (1536) in: Melanchthon, *Orations*, 98-104: 102-103.

²⁹⁸ *Ibid.*, 104.

²⁹⁹ Plato, *Phaedrus*, 246c-d.

³⁰⁰ Melanchthon, ‘Preface to arithmetic’ (1536) in: Melanchthon, *Orations*, 90-97: 93.

³⁰¹ *Ibid.*

trism.³⁰² It is far from Melanchthon's mind to follow Plato's Socrates in his command to 'leave the things in the sky alone', for those things in the sky are of great importance to the 'nature of things', and the 'greatest things that happen in the life of man'.

One obvious reason is the evidence of God in the order of heavens, and of course this is something that Melanchthon emphasizes as very important; but we have established before that his natural theology does not go as far as it might seem. Nature does contain proof of intelligent design, but that is something that Augustine would admit;³⁰³ it is not a new motivation for doing natural philosophy, but one that goes back at least to Cicero.³⁰⁴

But Melanchthon gets more out of natural philosophy. In an oration on this very subject, Melanchthon begins to say that natural philosophy "takes its first beginnings from mathematics, and again and again borrows demonstrations from it."³⁰⁵ He goes on to list the benefits of natural philosophy: it is the starting-point for medicine, and for a general knowledge of health and household remedies – it is, in that sense, practically useful.³⁰⁶ The reference to usefulness for secular life has in itself been noted as a recurrent motif in Melanchthon's work,³⁰⁷ but here I want to direct the attention to something else that Melanchthon says. "It may be the foremost benefit that it [natural philosophy] is a small part of medicine, but there are many other reasons why natural philosophy is taught to the young. A great deal of ethical disputations spreads from it, because the causes of the virtues are to be sought in the nature of man."³⁰⁸

The causes of the virtues are to be sought in the nature of man. In a general philosophical sense of the word 'nature' – the essential properties and principles of what man is, his 'substance' – that would have been rather conventional.³⁰⁹ But Melanchthon has been talking about medicine and the body for quite a while now: evidently, he means something more concrete. We have to investigate bodily nature, because somehow the causes of our virtues are located there.

This seems to be quite an amazing conflation of natural philosophy and psychology. A more explicit and pronounced statement on it is to be found in another oration, however. Socrates' interpretation of the Delphic encouragement to 'know thyself', a turn towards moral philosophy and ethics, is usually conceived as in opposition to natural philosophy and knowledge of the external world.³¹⁰ In

³⁰² Sparrn(1998) 47-51; Augustijn(1998) 16-19. Cf. Westman(1975) 165; Westman(1986) 51-54 on the 'Wittenberg interpretation' of Copernicanism. In connecting Melanchthon to the scientific revolution in its conventional sense, it might speak in favor of him that among his students are the only academic Copernicans between 1543 and 1600 (Henry(1997)). However, though Melanchthon can evidently not be counted as a force against Copernicus (Maurer(1962) 211-226), Reticus' 'conversion' to a realist interpretation of Copernicus is due rather to the influence of Copernicus himself than to Melanchthon (Westman(1975) 181-190).

³⁰³ Augustine, *Confessions*, 5.3.6.

³⁰⁴ Jorink(2008) 5-19 underlines the point that looking at and admiring creation is something different from analyzing and probing it. It deserves notice, however, that the view of the God Who is supposedly found in nature as a 'deus geometra', a mathematician, has some affinity with the notion that simply admiring nature does not do, and that recognizing God requires systematic inquiry (Ohly(1982) esp. 14-20).

³⁰⁵ Melanchthon, 'On natural philosophy' (1542) in: Melanchthon, *Orationes*, 133-138: 133.

³⁰⁶ *Ibid.*, 133-134.

³⁰⁷ Hartfelder(1889) 163-177. Grosse(2003) connects Melanchthon's principle that science must be useful to his view of theology (whose uses are of course not secular). A more general account of the relation between Protestant thought and the call for usefulness can be found in Harrison(1998) 161-204.

³⁰⁸ Melanchthon, 'On natural philosophy', 135-136

³⁰⁹ Weisheipl(1982) esp. 142-146 on the Aristotelian notion of *fusis* and its medieval reception. (Wallace(1982) attempts to link the notion of nature as a principle and cause of natural movement to the scientific revolution.)

³¹⁰ This is not only an observation about history but also about historical scholarship. Pitirim Sorokin, in developing the paradigm for his grand-scale historical analysis of 'social and cultural dynamics' of civilizations, connects the distinction between an 'ideational' and a 'sensate' system of truth with respectively spiritual aims (like self-knowledge and transcendent values) and sensate aims (control of the external world) – cf. Sorokin(1962a) esp. 66-96; Sorokin(1962b) 3-60, esp. 3-14. (Science belongs to a sensate culture, according to Sorokin. Cf. Merton(1963) for a nuanced criticism of Sorokin's classification.) Is apparently quite intuitively appealing to

Plato's *Phaedo* especially, Socrates remembers that as a young man, he was very interested in natural science,³¹¹ but that he has since become disappointed by it because it is not really able to discern the true causes of things. Even Anaxagoras, who claimed to believe that Mind was the cause of everything, "mentioned as causes air and ether and water and many other strange things."³¹²

"That seemed to me much like saying that Socrates' actions are all due to his mind, and then in trying to tell the causes of everything I do, to say that the reason that I am sitting here is because my body consists of bones and sinews, because the bones are hard and are separated by joints, that the sinews are such as to contract and relax, [... etc.] But he would neglect to mention the true causes, that, after the Athenians decided it was better to condemn me, for this reason it seemed best for me to sit here."³¹³

Socrates' point is that the determining cause in his still sitting in Athens is the ethical decision that he has made, and that this cannot be reduced to his bones and sinews, which after all could have brought him far away from Athens by now.³¹⁴

Melanchthon's take on the 'bones and sinews', so to speak, is markedly different. "They said that there was an oracle, 'know thyself', which admonishes us about many things, but is also adapted so that we examine with zeal the things that are worthy of wonder in ourselves and are the sources of several actions in life."³¹⁵ Melanchthon is quoting the Delphic maxim here in favor of the discipline of anatomy: "since men are made for wisdom and justice, and true wisdom is the recognition of God and the contemplation of nature, we should acknowledge that we need to know anatomy in which the causes of many actions and changes can be observed in ourselves."³¹⁶

The reason why Melanchthon is able not just to harmonize moralizing in Socratic fashion with an interest in natural philosophy and anatomy, but to claim that the two are necessarily related, is that the mental faculties are themselves to a large extent material.

"The nature of the brain [...] is similar to that of the heavens, and in it wonderful actions are produced: cognition, reasoning, the conservation of images in memory, and recollection. There is no doubt that these actions are produced by the work of the spirits, and that they are, so to speak, pulsations of the spirits against the body of the brain. The spirit originates in the heart, and then it receives new powers and new light in the brain."³¹⁷

The microcosm-macrocosm-motif left aside, this quotation could, in isolation, have been Cartesian to the word in its materialist explanation of mental functions.³¹⁸ I have no wish to picture Melanchthon as

invoke the contrast between an inwardly oriented and an outwardly oriented direction of intellectual activity. The paradox that this would leave with regard to the current study, however, is that Augustine and Melanchthon are *both* interested in spiritual questions and in the human self, and that yet one of them is also interested in the external world – a dual opposition between empiricism, materialism and science etc. on the one hand and intellectualism, spiritualism and religion on the other (as made more recently by Cook(2007) esp. 82-132) does not help to clarify this paradox.

³¹¹ Plato, *Phaedo*, 96a.

³¹² *Ibid.*, 98c.

³¹³ *Ibid.*, 98c-e.

³¹⁴ *Ibid.*, 99a.

³¹⁵ Melanchthon, 'On anatomy' (1550) in: Melanchthon, *Orations*, 158-166: 165.

³¹⁶ *Ibid.*, 165.

³¹⁷ *Ibid.*, 163.

³¹⁸ Descartes, *On man*.

anticipating Cartesianism, and that would probably be misleading;³¹⁹ all I want to establish is that great explanatory value is put upon the internal workings of the human body here.³²⁰ And Melanchthon goes on to show that this is not without moral and theological significance: the ‘vital or animal spirit’ that he has been talking about is a very noble, divine substance which performs marvelous work, “but it is troubled in many ways: by a bad way of life, by intemperance, the conflagrations of desires, the immoderate ardors of emotions – anger, hatred, love or grief – and the afflation of evil demons.”³²¹

As shown above, Melanchthon views sin as something that is located not simply in the soul, but also in the body, and here we see the implications of this: hatred and other ‘disordered emotions’ disturb the order of thought and action, “and the devils fan this turmoil and fury of the spirits even more [...] These perils need to be understood so that, in nourishment and in all impulses, we apply greater care, contemplation, hesitation, and moderation. And indeed, let our prayer rise to God also, that He govern His abode within us.”³²² This is Melanchthon’s interpretation of ‘know thyself’: to know oneself including all the disordered impulses that are in the body.³²³ Scientific investigation of the body, and especially of its internal workings as done by anatomy, is so important because the body is where sin is, and where the devils are – and in order to curb the sinful impulses and the devils, in order to discipline ourselves, we need to know as precisely as possible how they work.

We will never be entirely successful in this, to be sure, and it is precisely our fallen condition that makes it both hard and necessary: trying to distinguish the powers and functions of the human soul is a noble work now, but “if the soul had kept that light and harmony which are bestowed upon it in its creation by divine providence there would be less need for other learned men, and it would examine its nature by its own sharpness of vision.”³²⁴ Once more, we see confirmed that the reason why we have to investigate systematically the powers of the soul is original sin: now that it “lies in the body, buried in hideous darkness, there is the greatest need for knowledge that should bring it forth

³¹⁹ But *cf.* Frank(1998), who ascribes to Melanchthon a quasi-mechanical view of nature, not as a kind of Cartesian materialism *avant la lettre*, but as a result of the ‘de-ontologizing’ mentioned above: what happens in Renaissance thought, according to Frank, is a solution of the distinction between matter and form – movement is not anymore thought to be caused by a intelligible form conceived separately from matter, but is rather inherent to matter. Melanchthon is here part of a process of elimination of teleology from nature (and its relocation to a transcendental domain of mathematical structure) (*ibid.*, esp. 47-52).

³²⁰ Melanchthon does not use the concept of ‘natural law’ for anything other than the order of the heavens, except in its ethical sense, but he clearly believes in regularities in nature (Kusukawa(2008) 111-117). According to Kusukawa (*ibid.*, 105-106, 121) the explanation for the increased emphasis on the regularity of nature in Protestantism is its strong focus on providence. Indeed, the notion of natural laws that every part of creation obeys denotes the transfer of the metaphor of divine legislative omnipotence from the ethical and legal domain into that of nature (Wilson(2008); Daston(2008a)), but I would suggest here that next to this theological perspective, there also seems to be an anthropological one. Identifying regularities in nature is for Melanchthon a way of coping with our inescapable captivity in that nature – finding patterns in our natural dispositions is a necessary condition for regaining moral responsibility and discipline in a fallen state. (On the competition between Aristotelian explanatory concepts and laws of nature, *cf.* Joy(2006).)

³²¹ Melanchthon, ‘On anatomy’, 164. Here we see devils and demons not as simply supernatural forces, but as forces working *in* nature, which fits within Melanchthon’s ambition natural philosophy, which is to investigate *all* causes of all forms of movement in nature – *cf.* Bellucci(1998b) 136-144. (*Ibid.*, 137: “Il y a quelque chose de l’esprit de Faust chez notre Réformateur aussi.”)

³²² Melanchthon, ‘On anatomy’, 164. *Cf.* Helm(1998) on the working of the spirits and their relation to emotions and the individual.

³²³ Therefore, medical science is important in general to the study of the soul. *Cf.* Eckard(1998). *Ibid.*, 192-198 discusses the importance of anatomy for Melanchthon (albeit here mainly as evidence of God), and his reception of Vesalius, including the terminology of autopsy. It must be noted, by the way, that Melanchthon does not say that *all* the faculties of the human soul work through the bodily organism – he explicitly says the opposite in Melanchthon, ‘Menschenbild’ (1553) in: Melanchthon, *Texte*, 74-79.

³²⁴ Melanchthon, ‘Preface to the *Commentary on the soul*’ (1540) in: Melanchthon, *Orations*, 144-151: 146

and put it in our view, and show how great a wound the enemy inflicted on it, who overthrew the first ancestor of humankind”.³²⁵

Sin and its workings and limits have to be measured, not because we can overcome it by ourselves; rather, Melanchthon connects this knowledge of the soul to the horrible awareness that Adam and Eve must have had of what they had lost. “Since they had seen the earlier light and harmony of nature and were endowed with the greatest excellence of intellect, they could reckon more correctly the greatness of their disaster”.³²⁶ With the risk of taking the association between Melanchthon’s scientific ideology and his Lutheran theology one step too far, I surmise that an additional motivation for Melanchthon to investigate the wounds of original sin, is that an increased awareness of those wounds serves to humble us like it humbled Adam and Eve, who “would have perished from grief if some sign of divine goodness had not lifted them up again.”³²⁷ In this sense, disciplines like anatomy aid the working of the Law, not just in its constructive, pedagogic role but also in its original accusatory one: in pointing out to us the depth of our inner disturbance, it makes us despair – “the recognition of our misery,” Melanchthon says about knowledge of the soul, “curbs unruly minds [...] Whenever I think of this darkness of soul, this weakness and sad servitude, I am almost out of my mind with horror.”³²⁸ Desperation, as we have seen, is preparation for grace: Adam and Eve had even more reason to despair, yet they “had heard the promise of a victor over the most arrogant tyrant.”³²⁹ Law and gospel work together, and even if the gospel can never be discovered in nature, to a certain extent the Law can, as the sin towards which it points *is* in our bodily nature.

In a later text, Melanchthon again defends an interest in anatomy in the context of a work on the psyche, pointing out that “certainly the powers of the soul cannot be discerned unless their locations or machines in the body of man are shown in some way.”³³⁰ Melanchthon goes further even than Aristotle in subsuming human psychology under the study of nature,³³¹ and the reason why he can and must do so is that according to his Lutheran interpretation of original sin, the human psyche is to an extremely large extent enslaved by the body.

More, as we have argued before, than in Augustine’s thought. Not that man has not fallen as deep according to Augustine, for he certainly has; but as said, in Augustine’s Platonic intuition, the errors are rather autonomously produced by an erroneous orientation and disunity of the soul, which rather than taking place in the body is being produced by and in the soul itself. Referring sin to the body, after all, would reek of Manicheism: for Augustine, ‘blaming’ the body is associated with a denial of responsibility, with fatalism; and a science which purportedly proves that the body determines evil behavior in man is inherently suspect. Melanchthon almost undoubtedly feels the shadow of Augustine behind him when he tries to defend natural philosophy by saying: “while I know that in the past the Manicheans and several others, bewitched by fanatic madness, brought about great upheavals in the Church by badly constructed opinions of natural philosophers, there is nevertheless no doubt that the Church has need of a well-informed and genuine natural philosophy.”³³²

What Augustine would have thought of sixteenth-century anatomical practice remains hypothetical, a passing condemnation of the *curiositas* of bystanders watching a ‘mangled corpse’ aside;³³³

³²⁵ Ibid.

³²⁶ Ibid., 146-147.

³²⁷ Ibid., 147.

³²⁸ Ibid., 146.

³²⁹ Ibid., 147.

³³⁰ Melanchthon, ‘Preface to the book on the soul’ (1553) in: Melanchthon, *Orations*, 152-157: 155-156.

³³¹ On Aristotle cf. Falcon 16-22; on Melanchthon, Sparr(1998) 41-44. Salatowsky(2006) 1-13 notes that Aristotelian psychology in general contradicts the notion of ‘Unmittelbarkeit der Selbstwahrnehmung’ as present in Cartesian solipsism (and also, we may note, in Augustine): perception is always directed towards something.

³³² Melanchthon, ‘On natural philosophy’, 136.

³³³ Augustine, *Confessions*, 10.35.55.

but there is another discipline which Augustine and Melanchthon judge fundamentally differently, consistent with the differences sketched so far. This is astrology, the science that studies the influence of the heavenly bodies upon human life. On multiple occasions, Augustine goes on a crusade against this form of “pernicious superstition”.³³⁴

In *de civitate Dei*, the opinion that the success of the Roman Empire has been due to ‘fate’ is an excuse for Augustine to launch a long diatribe against belief in the influence of the stars. If, as the astrologers say, the stars cause certain events in life which can therefore be predicted, it becomes inexplicable why twins, whose horoscopes are so similar that they are practically indistinguishable, can lead such different lives.³³⁵ Augustine thinks especially of Jacob and Esau, the younger of whom was born so shortly after the elder that he was still grasping his heel, yet whose lives were almost polar opposites.³³⁶

The twins problem is a reasonable empirical argument against astrology, but Augustine’s deeper motivation for devoting so many words to astrology is not simply its lack of accuracy. The problem is rather this, as Augustine formulates it in *de doctrina Christiana*:

“although these men may seek out and even find the exact position of the stars at the time someone is born, yet when they seek to predict on that basis either our actions or the outcome of our actions they err greatly and sell unlearned men into a miserable servitude. For a man who is free when he goes to such an astrologer pays him so that he may leave him as the servant either of Mars or of Venus”³³⁷

The moral danger of astrology lies in its referring what are actually voluntary actions to the inescapable influence of the heavenly bodies, and thereby in telling people that something else is causing what they do – in declaring them ‘servants of Mars’.

What Augustine finds fault with is the supposed determining influence of bodily powers upon the human soul. This is confirmed by the fact that he admits that “it is not wholly absurd to say that the stars have a certain influence in bringing about differences of a merely corporeal kind.”³³⁸ This must not be exaggerated, for twins can also have different sexes, but the influence of the heavenly bodies is evident in that the sun influences the seasons, and the moon influences the tides. “The choices of the will, however, are not subject to the position of the stars.”³³⁹ In the *Confessions*, Augustine discusses his former belief in astrology in conjunction with his Manichaeism, and relates it to the same impulse: a denial of responsibility. Whereas the true Christian confesses his sinfulness and begs God to have mercy and heal his soul, “astrologers try to destroy this entire saving doctrine when they say ‘The reason for your sinning is determined by the heaven’”.³⁴⁰

Melanchthon does believe in astrology, to such an extent that he has even convinced Luther to move his birthday by almost a year in order to fit an important astrological prophecy.³⁴¹ About the problem of accuracy he is quite pragmatic: “this art is not to be spurned for the reason that it does not

³³⁴ Augustine, *On Christian doctrine*, 2.21.32. Astrology is for Augustine also an example of an anti-discipline, serving as a contrast to the orderly acquisition of the proper disciplines (Klingshirn(2005) 124-135).

³³⁵ Augustine, *City of God*, 5.1-3.

³³⁶ *Ibid.*, 5.4; cf. also Augustine, *On Christian doctrine*, 2.22.33-34.

³³⁷ Augustine, *On Christian doctrine*, 2.21.32.

³³⁸ Augustine, *City of God*, 5.6.

³³⁹ *Ibid.*

³⁴⁰ Augustine, *Confessions*, 4.3.4.

³⁴¹ Birnstein(2010) 62-63. Luther himself is very skeptical about astrology, however (Hartfelder(1889) 190-197; Maaser(1998) 29-32). On the general acceptability of astrology in Renaissance culture, cf. Newman(2001) esp. 1-14. Newman and Grafton find fault with the conventional verdict in historiography, especially that of Burckhardt, that astrology is incompatible with Renaissance individualism and self-analysis.

foresee everything. How little is certain in the other best arts” – medicine and meteorology are not infallible either, and yet we do not see this as a reason to discard them.³⁴²

The authority for the plausibility of astrology is Aristotle,³⁴³ who after all “spoke rightly when he said that this lower world is governed by the higher one, and that the higher things are the cause of motion in the lower ones [...] it follows that the motion of the heavens is also the cause of motion in everything else.”³⁴⁴ The reference to the transmission of motion here implies that the study of the influences of the heavenly bodies is a genuine part of natural philosophy, which after all studies the principles of rest and motion in nature.³⁴⁵ Melanchthon explicitly says that he wants to distinguish astrology from “superstitious divination [...] Astrology is a part of natural philosophy, which teaches what effects the light of the stars has on the elements and on mixed bodies, and which temperaments, alterations or inclinations it contrives.”³⁴⁶

For it is clear that the stars do have influence on sublunar bodies, in a way that incidentally also turns out to provoke piety by showing the intelligent design of the Creator: he “not only determined the periods to be measured by the movements of the sun and the moon, but he also added their powers, so that the earth would at times be warmed by fertile warmth, at other times moistened, at others dried out and at others left to rest bound in ice.”³⁴⁷ The vicissitudes of the four Aristotelian qualities on earth – hot, cold, dry and moist – are determined by the heavenly bodies.

And as they are, we are; that is, in so far as the influences to which we are subjected are natural. Melanchthon distinguishes three kinds of actions: those that spring from our nature, those that are divinely inspired, and those that are due to the influence of the devil. Because there are these supernatural and unnatural corrections and aberrations, there are no infallible laws to be found here.³⁴⁸ That does not mean, however, that there are no regularities; on the contrary. In general, our inclinations “follow the mixtures of qualities”: our “habits and passions imitate the disposition of bodies.”³⁴⁹ So in a bilious man “immoderate impulses are roused, like storms, great and violent passions, which reason can only rule or curb with the greatest difficulty.” These aspects of character, these impulses and violent passions, are located in the body, then, and therefore subject to the influence of the stars. An argument for this is the difference in characteristics of different peoples: “what other cause for this difference could one show than the nature of the heavens? From this one can judge easily that in the mixing of the temperaments of bodies and minds the nature of light also concurs, among other things.”³⁵⁰

Melanchthon does not advocate astrology as a fatalistic discipline informing us of inescapable destinies decided by the course of the stars: for him, it is worth studying because the heavens influence our bodily constitution and thereby co-determine its inclinations. That Melanchthon can consider this to be an interesting subject of investigation is because of how he differs from Augustine in his psychology and anthropology: for Augustine, any violent passions (or lust) arising from the body are a

³⁴² Melanchthon, ‘The dignity of astrology’ (1535) in: Melanchthon, *Orations*, 120-125: 122.

³⁴³ Which is not to say that Melanchthon ascribes astrological divination to Aristotle: he says that it is a necessary addition to Aristotle (Hartfelder(1889) 177-181 on “jene gelehrte Scheinweisheit, deren treuen Anhänger Melanchthon stets gewesen ist.”)

³⁴⁴ Melanchthon, ‘Preface to *On the sphere*’ (1531) in: Melanchthon, *Orations*, 105-112: 109. Cf. Falcon(2005) 7-13. Aristotle indeed saw the cosmos as a unified whole in which, in spite of the separation of the supra- and sublunar domains the movements of the heavens did affect the lower world.

³⁴⁵ Müller-Jahncke(1998) 124-127 discusses the criteria under which Melanchthon considers astrology a genuine art: that is, if it commits itself to the laws of cosmology.

³⁴⁶ Melanchthon, ‘Astrology’, 122.

³⁴⁷ Melanchthon, ‘Astronomy and geography’, 115.

³⁴⁸ Melanchthon, ‘Preface *On the sphere*’, 109-111. Cf. Maurer(1962) 205-211. The power of the stars is subordinate to God’s sovereignty, of course, but also not so compelling that it takes away human responsibility: the stars incline humans to certain behavior.

³⁴⁹ Melanchthon, ‘Preface *On the sphere*’, 109-110

³⁵⁰ *Ibid.*, 110.

distraction from what we actually are – though we are embodied souls, what happens in our bodies *is not us*, and a responsible Christian does therefore not justify the disorder of his soul by referring to the external world; in Lutheran theology, the sin that we are supposed to feel responsible for (and that the Law is there to accuse us of) is very literally in our flesh. This means that who we are is to a very large extent identified with what our bodies make us. Therefore, anything that can influence our bodies is interesting, because it can by definition influence *us*.

Therefore, a responsible morality *requires* knowledge of astrology rather than discarding it. “If someone understands the tendencies of his nature, he is able to nourish and strengthen what is good,” Melanchthon says; “the wise soul assists the labor of heaven, just as the best farmer in ploughing and cleansing assists nature.”³⁵¹ And moreover, astrological predictions of general traits of character – which Melanchthon believes to be possible: Catiline’s birth constellation did not predict the precise course of his life, but it did signify “cruelty of the mind, audacity, perverted morals and restless and calamitous decisions”³⁵² – can be used to make the right pedagogical decisions, and to curb the more disorderly aspects of someone’s natural temperament.³⁵³ When Philip of Macedon noticed Alexander’s harsh and impatient nature, he decided to move him to a more gentle disposition by teaching and philosophy. “Thus it is profitable to see where his nature leads a person, so that he may be moved to virtue by the appropriate discipline.”³⁵⁴

This is a reason for studying nature, then, that has a direct relation to the notion of our fallen and sinful condition, but that is also alien to Augustine’s conception of the meaning of sin: it is that we ourselves are now ‘natural’, in the modern sense – we are part of nature, subject to its laws. And therefore, in order to know ourselves, to get a grasp of our fall and the state of our soul, and to find out the reasons why we feel and do as we do, we have to study nature.

Philosophy, of which natural philosophy is a part, is traditionally oriented upon moral elevation. One of the important developments in the early modern era is the orientation of nature-knowledge away from spiritual transformation towards the manipulation of nature:³⁵⁵ in the end, in the form in which it becomes such a powerful force in the modern era, it is very much about the external world. Nonetheless, in understanding this process of ‘outward-orientation’, this turn towards nature, it is important to recognize that understanding nature is not in any case necessarily isolated from understanding oneself. For Melanchthon, understanding nature is in the end about understanding humanity – about understanding sin.

³⁵¹ Melanchthon, ‘Astrology’, 124.

³⁵² *Ibid.*, 121.

³⁵³ Here the naturalistic view on human emotions comes together with Melanchthon’s humanist pedagogical intuition. Gross(2000) provides a synthesis of Melanchthon’s strong sense of natural determination of the passions of the soul (whose mechanics consists of “hard physical events” (*ibid.*, 9)) and his practical ethical goals: emotions can be influenced and transposed by language and speech, and understanding of the physics of the soul thereby acquires therapeutic value. Medicine and rhetoric work together to (partially) mend the fallen human nature. *Cf.* Schmidt(1989) on Melanchthon’s view of the pedagogical influence of good authors, which is more than intellectual and influences the emotions (*ibid.*, 14-15).

³⁵⁴ Melanchthon, ‘Astrology’, 125.

³⁵⁵ Harrison(2007b). *Cf.* also Condren(2006) on the importance of the *persona* of the early modern philosopher; Gaukroger(2007) esp. 24-29 on the natural philosopher as sage. On the other hand, there is the Renaissance notion of the *virtuoso*, the rational artist with the intellectual power to manipulate a natural situation – *cf.* Crombie(1980).

Conclusion

The Protestant reaffirmation of the depth of the fall of man turns out to be of crucial relevance for the motivation for natural science, but this relevance is conditional upon the conceptualization of that fall. Neither for Augustine nor Melanchthon are there any reservations about the extremity of original sin, but their precise characterization of the nature of our sinfulness differs, with important implications for their valuation of nature-knowledge.

Both agree that sin is a kind of ‘disorder’, a transgression of divine harmony, and that humanity is therefore in need of discipline. Knowledge can serve as a kind of disciplining influence, and though the conditions for salvation are not intellectual, this disciplining retains a certain theological significance for both: Augustine preserves the intuition that genuine knowledge allows him to get used to the truth and thereby the eternal, so that it has a certain affinity with the divine. Melanchthon believes that conforming oneself to methods of certainty has a disciplining influence upon the mind and will therefore curb licentious habits in other than intellectual domains.

But they do not agree on what kinds of knowledge are relevant, and this is related to their disagreement on the location of sin, which is in turn related to their historical intellectual environment. Melanchthon fights a battle on the side of Luther to defend a Protestant belief in justification by faith (and therefore divine grace) alone against late medieval Catholic good works-theology. What makes the latter option so ‘Pharisaic’ to him, is that it self-righteously supposes that we can somehow make choices with regard to our sinfulness. In fact, God judges the heart, and the whole point of our sorry state is that we cannot reach and improve that heart by any act of will. Sin is simply in our nature; the devils are literally in our flesh.

For Augustine, the point is exactly that sin is not natural but is a disorder of the will alone. Augustine battles a different enemy, and that is the ‘Manichean’ opinion that sin can in some way be externalized, by ascribing it to a principle outside our power. Augustine feels that this is a self-righteous denial of responsibility, and he consistently rejects any opinion which tries to characterize as evil anything that God has created. Evil nature does not exist, and sin is never in nature; it is a corruption of the will, a misuse of the freedom that God has given the soul. Therefore, sin cannot be literally in the flesh: ‘living after the flesh’ too is an attitude of our mind, a disorder of the soul. That is not to say that it is now in our power *not* to sin: having left God, we have become weak and our will divided, and in that state it does not have the power to resist the world and the passions of our current, corrupted body.

Nonetheless, Augustine is clear about it that the disorder is in our divided soul. With respect to knowledge, this means that for Augustine knowledge is meant to diminish the extent to which the soul is occupied with the diversity and variability of matter: through our fall we have forgotten the eternal in ourselves, and if knowledge is of any use, it is through reminding us of truth and eternity. Since those cannot be found in the world of becoming, those disciplines take pride of place that contain eternally valid, intellectual truths, like geometry and dialectics. Sin is in the wrong, outward orientation of the soul (away from its point of rest that is God), and its cure consists in its turn inward. Augustine here subscribes to a neo-Platonic ontology, with the crucial difference that the power of bringing our soul back to its natural harmony lies only with God.

As for Melanchthon sin is in our nature, that is where it must be confronted. The first step lies in recognition of our sinfulness. This is the most prominent meaning of the Lutheran concept of the Law: that it points out to us our sinfulness, and thereby accuses and damns us, and prepares us for the promise of grace in the Gospel. For Melanchthon the role of the Law is not finished when the believer trusts in the Gospel, however; it retains a disciplinary and pedagogic role, and it does so partly with the help of philosophy. As our sinfulness is present in our body as well as our soul, natural knowledge too can help in identifying it, and curbing our wrong impulses.

Therefore, not only are the disciplines useful in serving to exercise and discipline our minds, like disputation or rhetoric do, but also in informing us about the nature of which we are part. Physics, medicine, anatomy, and even the study of the influence of the heavenly bodies, are all relevant to our understanding of our own impulses. That science has to be done methodically already is in itself related to the Fall and the human propensity for error and undisciplined behavior; but that it has to be done at all is because it is about these natural inclinations. Natural science studies the Fall; it permanently points out to us our sinfulness, and thereby it disciplines us. In this prehistory of modern science, the study of nature is not just about the external world; it is about the human soul, and that is why it can become a legitimate business for a Christian theologian. We have fallen into a world in which we have to know ourselves through science.

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