

# Introduction: Towards a History of Ignorance

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As ignorance is always larger than knowledge, a concise and complete introduction or a general theory of a History of Ignorance seems *a priori* impossible. The following lines therefore do not claim to rise to such Olympic fields; they are more a sketch of problems, of points of views and of possible approaches that might arise when one starts to write histories of forms of ignorance and how people coped with ignorance in the past. And, being subservient to the combined work of all contributors to this collective enterprise, this introduction proceeds largely by taking the examples from the volume itself in an inductive way, trying to generalize some of the problems raised there to such a level that other scholars and studies might link their proper ideas and work with what these combined case studies can offer.

## 1 A 'Grammar'

The first step of approaching the problem of a history of ignorance might be to borrow questions and terminology from the sociology of ignorance, because for some decades in this field of the humanities, a specific focus on, and a terminology for those problems has been developing. But the historian will be quickly disappointed by the results of simply re-projecting those schemes conceived for the problems of the twentieth and twenty-first centuries back into the past (cf. for more on that and for prudent reflexions on the terminologies offered the framing last contribution by *William O'Reilly* in this volume). If one only recalls the wealth of the terminology of *ignorantia* already worked out by medieval lawyers and theologians, it could seem reductionist or even ignorant to use the perhaps less fitting technical terms utilized by sociologists, problematizing the decision-making occurring under circumstances of ignorance concerning the problems of climate change or terrorist attacks. But as always in History, the division between the language of sources and the language of historical description makes it necessary to prepare at least a reservoir of terms that address recurring problems and distinctions in a basic form. So, one should take this rather as a 'grammar' and a set of terms to create a common first understanding, but not as a historical approach and as a theory of history as such. The reason for that lays in the hermeneutical distance between the

historical objects themselves and in the (still historicist) necessity to investigate in and to describe the conditions of ignorance and ignoring proper for each historical situation and period as well as their development—otherwise, the application of preformed terminology can have the seductive effect of creating the false impression of a novel historical narrative while in reality what it does is to employ scattered pieces of historical material for the reification of that ahistorical terminology. If the sociology of ignorance itself sometimes (seldom) refers to historical realities and circumstances, it is through citations from major philosophers (such as Bacon and Pascal), and in so doing nearly always referring to the one historical context recognized as important for itself, the early modern scientific revolution. Significantly, the only instance in which one of the early founders of the sociology of ignorance, Georg Simmel, reflected on *Nichtwissen* in historical terms, it was in a sketch of European scientific ‘advances’ and forgotten forms of knowledge.<sup>1</sup> This is indeed a major epistemic shift of great importance which will also be addressed, somewhat implicitly, by several contributions here. Locke’s terming ignorance as the ‘dark side of knowledge’ as is this volume’s title, is taken from that context as well. But regarding entire premodern histories and societies, it is a very specific, indeed tiny, niche where those early forms of reasoning about ‘ignorance’ emerged which, apparently, present-day sociology can still identify as its own precursors. There are many medieval and early modern forms and problems of ignorance that we will see here, which are far less bound to those philosophical foundations of a twentieth/twenty-first century knowledge based society that tries to contemplate its blind spots and how to cope with them. So, the following grammar, which derives from that sociological menu, is thought to simply serve the aforementioned function of a first and primary intersubjective understanding, performing the task of description *before* starting the real historical work.<sup>2</sup> *Nescience*, or *unspecified ignorance*, usually denotes a more or

1 Simmel G., “Lebensanschauung. Vier metaphysische Kapitel [1918]”, Chapter III: “Tod und Unsterblichkeit” in Idem, *Gesamtausgabe*, vol. 16, ed. G. Fitzi – O. Rammstedt (Frankfurt a.M.: 1999) 303.

2 Ravetz J. R., “Usable Knowledge, Usable Ignorance: Incomplete Science with Policy Implications”, in Clark W. C. – Munn R. E. (eds.), *Sustainable Development of the Biosphere* (Cambridge: 1986) 415–432; Collingridge D., *The Social Control of Technology* (New York: 1980); Wilson P., *Second-Hand Knowledge: An Inquiry into Cognitive Authority* (Westport – London: 1983); Smithson M. J., *Ignorance and Uncertainty: Emerging Paradigms* (New York: 1989); Ravetz J. R., *The Merger of Knowledge with Power: Essays in Critical Science* (London – New York: 1990); Luhmann N., “Ökologie des Nichtwissens”, in Idem, *Beobachtungen der Moderne* (Opladen: 1992) 149–220; Wehling P., *Im Schatten des Wissens? Perspektiven der Soziologie des Nichtwissens* (Constance: 2006); Idem, “Vom Risikokalkül zur Governance des Nichtwissens.

less completely unconscious absence of knowledge. As will be developed below (3.1—‘Measuring Ignorance’), nescience becomes visible only from an ex-post or from an outside perspective. A humanist may unmask many elements of pretended ignorance on the side of medieval scholastics; similarly, an enlightened traveler or administrator may expose pretended ignorance(s) among the natives of countries visited or among his own country’s unlearned population. At the same time, however, he can himself fall victim to unconscious forms of ignorance.<sup>3</sup> Even more importantly, we historians may reveal elements of unconscious ignorance in late medieval and early modern intellectual discourses and administrative practices by gathering and aggregating archival data in a way that was not accessible to the contemporaries themselves. We speak of *specified ignorance* if an epistemic process took place, by which actors demarcated the borders between the unknown and defined what, how and how much they did not know about something, transforming nescience into ‘non-knowledge’. Consciousness and unconsciousness are similar to, but not identical with, wilful and unwilled ignorance. Those terms refer to a voluntary and purposeful act. Ignoring someone or something can certainly be a strategy, even a means of politics, with positive or negative moral connotations that different observers will assign differently, according to their own schemes of values. Ignoring the flaws of someone can be a noble gesture—and could probably be studied on the basis of advisory texts for the personal conduct of nobles or the late early modern culture of salons—but ignoring someone’s rights, work, even whole person, can serve quite malicious purposes.<sup>4</sup> One usually terms a specific form of this as ‘negative knowledge’, referring to instances in which actors recognized and specified their ignorance concerning a given fact or problem, but also decided at some point to just leave

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Öffentliche Wahrnehmung und soziologische Deutung von Umweltgefährdungen”, in Gross M. (ed.), *Handbuch Umweltsociologie* (Wiesbaden: 2011) 529–548; Bösch S. et al., “Entscheidungen unter Bedingungen pluraler Nichtwissenskulturen”, in Mayntz R. et al. (eds.), *Wissensproduktion und Wissenstransfer. Wissen im Spannungsfeld von Wissenschaft, Politik und Öffentlichkeit* (Bielefeld: 2008) 197–220; Gross M., *Ignorance and Surprise. Science, Society and Ecological Design* (Cambridge, Mass. – London: 2010).

3 For the topos of the ignorant objects of missionary activities cf. for instance Heyberger B., *Les Chrétiens du Proche-Orient au temps de la Réforme catholique* (Rome: 1994) 139–143. Parallels can also be found in all asymmetric forms of communication between learned and (allegedly) illiterate populations.

4 The latter is discussed in contemporary contexts concerning social behaviour concerning race cf. Steyn M., “The Ignorance Contract: Recollections of Apartheid Childhoods and the Construction of Epistemologies of Ignorance”, *Identities. Global Studies in Culture and Power* 19, 1 (2012) 8–25.

the matter as is, classifying the whole issue as unimportant. In other words, these were portions and parts of ignorance one could live with. The status of ignorance being willed or unwilled has to be distinguished from the functions of ignorance and from acts of ignoring within a society. This is because the goals of a willed form of ignoring can coincide with its functions, but, as always in social contexts, the proximate as well as ultimate functions can differ, unintended outcomes can turn up that are not within a given actor's ability to anticipate and master. Finally, I would propose making a distinction concerning the character of the knowledge/ignorance involved. There is a difference between 'operative' and 'epistemic' knowledge/ignorance. The first serves as guiding schemes and principles in all forms of practice and action (political, economic, agrarian, legal, etc.). No higher forms of written theoretical semantics may exist for it, but an actor or a group still can either take advantage of it or lack it. Epistemic, or perhaps 'discursive', knowledge/ignorance refers to more theoretically developed forms that may be purely contemplative and without direct usability within immediate practical contexts. This is helpful insofar as it allows us to address manifestations, and highly reflective theories, of oblivion, of forgetting, and of ignoring something, embedding humanist or Enlightenment thinkers together with the less contemplative forms of ignorance that arose in the everyday practice of merchants or administrators—and yet we still remain able to distinguish the one from the other. And treating them together makes sense, as operative and epistemic forms of non-knowledge are linked to each other and are often in an osmotic form of interdependency. Daily practice can reach a theoretical level through descriptions and observations, transforming quotidian procedures into discursive knowledge and, vice versa, contemplative armchair theories can become direct actions and establish whole institutions (later, by others, in different form), as they become 'enacted'. Several of the contributions gathered here address those connections between operative and epistemic forms of specifying ignorance and of knowledge: *abacco* teachers and their writings about early forms of calculation and the practice of risk specification in fifteenth century Tuscany; the close interrelationships between mercantilist theories and everyday administrative practice; political decision-making theories and the practice of analysing news, as well as planning and conceiving the unknown future at the very moment of political action. As will be noted shortly below (3.2 'The shift to empiricism'), several of those distinctions concerning 'ignorance' have very long histories and very old roots. As we shall see, one does not require twentieth century sociological terminology to distinguish between forms of ignorance related to the perspective of individual actors and between several voluntary forms of ignorance. But the Mertonian distinctions concerning the

'specification' of ignorance and those differentiations between the collective and social status of knowledge/ignorance were less precisely defined in pre-modern times, even if one can find for many of them astonishingly early parallels. As such, both the sociological and medieval scholastic terminologies are ahistorical, but as an initial consensus for a possible common language of description and understanding, it is a good starting point.

## 2 Dimensions

There are some dimensions of ignoring and ignorance that intersect or link the more thematic fields of discursive or practical congruity into which the contributions may be classified (law, economy, politics, sciences, theory). Of those, one may highlight here the relationships of ignorance/ignoring with time, space, emotion, with the creation and processing of meaning (semantics and semantic potentials of artefacts and communication), and historical reflections about the place and seat of knowledge as well as of ignorance (what is the *Instanz* of knowing/ignoring?).

### 2.1 Time and Ignorance

Since the 1960s, several now classical narratives have been written that describe the development of the concept of time, in particular of History, between the late Middle Ages and Modernity. The main idea has been a change from a cyclical concept of time and History to a progressivist, secular teleological concept, for instance, the idea of a stadial succession of civilizational conditions, with an 'open future', which is associated with the names of Koselleck, Pocock or in France with authors from Dubois to the more theoretical Ricœur and Hartog.<sup>5</sup> Usually those arguments have been developed through the analysis of major historico-philosophical texts in which medieval and early modern authors, from Machiavelli to Buffon and Gibbons made explicit and calculated statements about how 'History', 'Natural History' or 'time' *is* and is evolving. Those narratives concern explicit discursive conceptions of time horizons. Other dimensions of operative time horizons were addressed more

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5 Fundamental still is the first collection of essays by Koselleck R., *Vergangene Zukunft. Zur Semantik geschichtlicher Zeiten* (Frankfurt a.M.: 1979). His later work deals with the same themes; Pocock J. G. A., *Barbarism and Religion*, 6 vols. (Cambridge: 1999–2015); Dubois C.-G., *La conception de l'histoire en France au XVI<sup>e</sup> siècle (1560–1610)* (Paris: 1977); Ricœur P., *Temps et récit*, 3 vols. (Paris: 1983–1985); Hartog F., *Régimes d'historicité: présentisme et expériences du temps* (Paris: 2003).

by historical anthropologists. These perspectives on time were implicitly embedded into the everyday communication and practices of medieval and early modern people. Scholars have usually been less interested in long-term processes, or in great but general distinctions such as the famous Le Goffian one between the time of work and of merchants on the one hand and of the time of churchmen on the other, followed by many sub-distinctions.<sup>6</sup> What in both large currents is seldom or not inquired into is the question of the cognitive causes and effects of ignorance, or of the feeling of ignorance, produced by and producing distinctive time horizons, often precisely in the moments of change or in situations of coexistence and intersection of those time horizons. It may be conceived of as a chicken-or-egg question if early modern proto-archaeologists like John Aubry or natural historians like Buffon first ignored a large part of the deep past laying in darkness and then were wont to formulate a developmental form of history that transcended biblical timeframes. Likewise if, vice versa, the humanists' and philosophers' work on synchronizing different chronologies<sup>7</sup> followed an already pre-conceived framework of historical thought produced by the very *syn-taxis* of knowns as an unintended consequence of the awareness of ignorance and of lacking knowledge for certain regions and people in given times that must have existed, as there were, for example, known aspects of Phoenician history at a given time, but a blank for all histories of the Jews at the same time. In other words, was ignorance a cause of epistemic shifts and clashes or a by-product of those same processes? As with most chicken-egg questions, it is wise to leave it undecided and even suggest that both are true: ignorance is a cause as well as a product of those developments. But what results from that reasoning is that a focus on ignorance, on the degree of its consciousness and specificity, and on the other conditions of ignorance discussed will provide new insights. It helps us not just reproduce the narrative of those major historico-philosophical developments as a certainly helpful general framework, but also concentrate on the historical moments of coexistence between knowns and unknowns, between knowledge and ignorance as they evolved.

The contributions gathered here address those problems for the three dimensions of Past, Present, and Future and for the operative and epistemic or discursive forms of knowledge/ignorance. Communication History has

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6 Le Goff J., *Pour un autre Moyen Âge. Temps, travail et culture en Occident* (Paris: 1978) 46–79.

7 For an overview on research on the history of early modern chronology cf. Levitin D., "From Sacred History to the History of Religion: Paganism, Judaism, and Christianity in European Historiography from Reformation to 'Enlightenment'", *The Historical Journal* 55, 4 (2012) 1117–1160.

already productively challenged the History of politics in many ways, and it has here a core problem: how ‘the present’ is constructed in the perception of political actors and observers as the tableau and reality they work on.<sup>8</sup> Postal relay systems of correspondence and news transportation established in such different areas as were the Europe of the Renaissance and (earlier) in the successive Chinese dynastic empires fundamentally changed the relationship between time and space. For each case and period, among our important questions are the speed, the frequency, the degree of stability and reliability of transport, and of open or restricted access to, distribution of, the news. But on a general level, it is crucial to recognize that a continually renewing representation of the political present for those regions covered by the descriptive narratives of political news (such as of ‘Europe’, or this or that part of the Chinese Empire) only emerged with those forms of communication beyond the reach of face-to-face communication. This present had always some innate characteristics due to the infrastructure and the forms of descriptions it relied on. While the speed and sometimes regularity of average newsfeed could be impressive, in premodern times there was certainly never a physical synchrony between an event and the perception of news about it. What arrived as news in Rome about the present affairs in Germany via Augsburg was already two or three weeks old at the moment of reception. But in early modern terms, this *was* the Present that the men of politics were dealing with. From the point of view chosen here, questions thus arise on at least two levels. The first is the emergence of a truly early modern concept of news as the necessary, albeit ephemeral and porous, form of ‘reality’ to which all kinds of decision-making had to refer. This meant that ignoring relevant information and news from this or that region and about this or that problem now became a constant theme of reflection. This seems to be a different form not only of communication, but of the reality that politics referred to. The contribution of *Fabrice Micallef* gives examples of these new forms of consciousness of partial or complete ignorance of ‘the relevant news’ about one topic or another, all of which were, again, cause and effect of this historically different form of the present at the

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8 Woolf D., “News, History and the Construction of the Present”, in Dooley B. – Baron S. A. (eds.), *The Politics of Information in Early Modern Europe* (London – New York: 2001) 80–118; Behringer W., *Im Zeichen des Merkur. Reichspost und Kommunikationsrevolution in der Frühen Neuzeit* (Göttingen: 2003). For the concept of ‘horizons of the present’ and *avvisi* communication see Zwierlein C., *Discorso und Lex Dei. Die Entstehung neuer Denkrahmen im 16. Jahrhundert und die Wahrnehmung der französischen Religionskriege in Italien und Deutschland* (Göttingen: 2006) 198–294, 557–610, cf. Dooley B. (ed.), *The Dissemination of News and the Emergence of Contemporaneity in Early Modern Europe* (Aldershot: 2010).



same time. On another level, an interesting question arises: to what degree and how were actors aware of the forms of ignorance produced by the shape and the selectivity of that 'fluid present'? Newsletters usually contained only very specific contents; more implicitly than explicitly they gave quality and density of attention only to a tiny set of regions. They did not pay any attention to many other coexisting events and realities in social strata not 'seen' by the political elite, and their necessary transport meant that the mark of delay was unavoidable. These are two forms of consciously or unconsciously ignoring the present and of ignorance produced by the historically specific representation of the present which emerged in co-evolution with postal relay-based long distance communication. It was first of all situated on an operative level of action, but surely, it had great impact on 'higher' discourses, as several forms of reflecting upon and coping with these forms of ignorance show, such as notation systems like the famous double-entry bookkeeping, situated on an intermediate level of merchant practices. This is, at its very core, a system that attempts to represent the present situation of a firm's whole economic affairs despite the asynchronic flows of income and expenses, of incoming and outgoing goods and values in a system of stretched out inter-factory trade communication.<sup>9</sup> The transfer of this form of responding to ignorance through a synchronized form of value representation into the administration of state finances took hundreds of years between the first city government which adopted it in Italy and the still failing reform attempts in mid-eighteenth century France.<sup>10</sup> This long process reminds the historian that the question of how one operated under circumstances of partial ignorance for centuries, without a synchronized overview of state finances, and how the administrators witnessed the coexistence of both forms of financial communication. On a still more discursive level, late Renaissance theories of *prudencia* (following Bodin and Botero: contribution *Fabrice Micallef*) are historical theories of decision-making under circumstances of ignorance that are specific to these moments within the long development of the present's shape.

While there are also other causal factors and inner discursive developments that the way the past and History were conceived between medieval and modern times, the just mentioned emergence of different representations of the present also resulted in a different conception of the past. The emergence of late humanist forms of history writing, heavily relying on collecting and digest-

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9 One of the best introductions into the materiality of the notation system of the early capitalist Mediterranean merchants remains Melis F., *Aspetti della vita economica medievale. Studi nell'Archivio Datini di Prato* (Siena: 1962).

10 Cf. for the latter problem the contributions of Isenmann and Legay in this volume.



ing past news,<sup>11</sup> shows that impact. Here the past was conceived of as a succession of layers of past representations of present states of a given region—and this could eventually lead authors to new states of awareness concerning their ignorance of certain or large parts of that past, for the simple reason that no such coherent web of archived news was available for earlier times. The ‘darkness’ of the Middle Ages opened up by implicitly comparing the current form of representing the present with the information provided by chronicles and other compilations of data for previous and lost times.<sup>12</sup> One could interpret, for instance, the humanists’ rediscovery and high estimation of the letters of Cicero and Pliny<sup>13</sup> not only as a rediscovery of ancient ‘private life’ but as an acknowledgement of a past representation of news flow and of the political present enhanced by the Roman communication infrastructure of streets, news carriers, and later of means of transport already relying on principles

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- 11 This applies mostly to those historians who wrote histories of the recent past, but sometimes went back into earlier periods. For Italian humanists strongly relying on collected archival and ‘past news’ material cf. Cutinelli Rèndina E., *Guicciardini* (Rome: 2009); Zimmermann T. C. P., *Paolo Giovio: the Historian and the Crisis of sixteenth-century Italy* (Princeton: 1995); for France for instance, Yardeni M., “Esotérisme, religion et histoire dans l’œuvre de Palma Cayet”, *Revue de l’histoire des religions* 198 (1981) 285–305. The author of the *Chronologies* of early times of Henry IV was linked to and succeeded by the editors of the *Mercure François*, which was itself a precursor of Renaudot’s *Gazette*. For England, Woolf D. R., *The Social Circulation of the Past: English Historical Culture, 1500–1730* (Oxford: 2003). In Germany, the relationship of that form of history writing with the emerging genres of printed news or of annalistic summaries of recent events around 1580/1600 is even closer, cf. the bibliography Bender K., *Relationes historicae. Ein Bestandsverzeichnis der deutschen Messrelationen von 1583 bis 1648* (Berlin: 1994).
  - 12 On medieval organization principles and forms of history writing, retrieved mostly from Central European examples cf. Goetz H. W., *Geschichtsschreibung und Geschichtsbewußsein im hohen Mittelalter* (Berlin: 1999).
  - 13 Witt R., *In the Footsteps of the Ancients: the Origins of Humanism from Lovato to Bruni* (Leiden – Boston: 2000) 224–229; easily to be overseen due to its concentration on Agricola is Akkerman F., “De Neolatijnse epistolografie. Rudolf Agricola” [first 1985] in Idem, *Met iets van eeuwigheid* (Groningen: 1999) 80–98, which gives a good overview on that humanist interest from the fourteenth century in the *epistola familiaris* and the phenomenon that the emulation of factual narration of daily news mixed with private affairs was perhaps the latest and most difficult form of humanist re-invention in dialogue with Antiquity. Mostly (as with Alfred von Martin for instance), the *epistola familiaris* is taken as the genre that re-established intimacy and ‘friendship’. Cicero’s and Pliny’s letters contain information on the ancient private transport system, relying on *tabellarii* as opposed to the *cursus publicus* established by Augustus which was restricted to state and military purposes, cf. Kolb A., “Communications II: Classical Antiquity”, in Cancik H. – Schneider H. (eds.), *Brill’s New Pauly* [Brill online 2006].

close to postal relay systems, closely resembling the humanists' own days and different from medieval times. If, in a next step, philosophers reflected on the structure of History as a whole, of its shape, developmental character and the causalities involved, this was all determined by that basic change of concept of the past, relying on the aforementioned new form of the present. The problems of ignorance and ignoring evoked there are mirrored and transferred in analogy to that new form of History, as the contribution of *Lucian Hölscher* shows. The Newtonian shock of discovering a concept of absolute time, as was still being digested by late Enlightenment German philosophers of History, was an epistemic challenge nevertheless different from the abovementioned changes in the perception of the past. The questions raised, however, are still highly related. Questioning the past and History as its description regarding the voids as those philosophers did, was the effect of becoming aware of the selective shape and character of the information provided—now and in different forms in the past. Instead of having an unquestioned idea of the past as an always similar (for instance Biblical) narrative without gaps, as a seemingly dense unity, things change if one accepts that sources do not say very much about a given region or monastery for example. Records of past events, in other words, were as selective as current news. And even more so because in the past, there was not anyone who continuously produced written representations of present conditions. If only from time to time, some letters or a chronicler working from oral transmission and memory survived, History, measured against the current form of the present, became perceived more like a network of loosely connected nodes of knowns with a great deal of void between them instead of that former idea of a dense tableau. Theories about how whole civilizations fall and become 'forgotten' in diluvian forms of oblivion or how smaller instances of destruction and the fall of empires, states or cities lead to the forgetting of their past start to emerge in humanist times.<sup>14</sup> Those reflections as well as thoughts on causality and how History behaves according to divine or natural laws and where forms of *fortuna*, hazard and contingency pose limits to such lawfulness can be interpreted as a reflective supplement to the partially or

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14 On Renaissance theories of general oblivion cf. Sasso G., "De aeternitate mundi (Discorsi, II 5)", in Idem, *Machiavelli e gli antichi e altri saggi*, vol. 1 (Milan – Naples: 1987) 167–399, and for the development of the Machiavellian topos until Ammirato, Zwierlein C., "Forgotten Religions, Religions that Cause Forgetting", in Karremann I. – Zwierlein C. – Groote I. (eds.), *Forgetting Faith: Negotiating Confessional Conflict in Early Modern Europe* (Berlin: 2012) 117–138. On the theme of individual forgetting and self-forgetting as a theme of literature and as subfield of the *ars memoriae* cf. Sullivan G. A., *Memory and Forgetting in English Renaissance Drama. Shakespeare, Marlowe, Webster* (Cambridge: 2005).

largely unknown content of the Past by the form of a structure that prevailed beyond the knowable and despite so many unknowns.<sup>15</sup>

While the present and past are logically knowable but empirically out of reach, and their representation biased by current forms of communication, the future has always been and is logically unknown. Much has been written about the development from concepts of closed futures, linked to either linear biblical time or cyclical forms of rise, peak and decline, to allegedly modern concepts of an open future of, for instance, humankind's progress. All that concerns, again, more the level of philosophical discourse, linked to the reflexive forms of conceiving laws of History already mentioned. It is less represented in this volume, where more attention is given to the problems of how, e.g. in terms of economic and state financial operations and political planning, late medieval and early modern possible futures were fabricated as forms of prognostics.<sup>16</sup> To some extent, the line from proto-probabilistic forms of risk modelling in late medieval Tuscany to the political arithmetic of future scenarios of state finances and the balance of trade between nations, follows well prepared historiographical paths. But the focus on future as just one content and object of ignorance allows us to understand these developments in a wider context. One important potential here is the ability to see the intersection of different coincident epistemic fields and the conflation of their respective methods of reasoning about and of coping with future unknowns. The Florentine proto-probabilistic form of risk conceptions, for example, seems just to be a product of theological, merchant and mathematical (*abacco*) approaches to shaping the future as a not-yet-present and to make it calculable as the contribution by *Giovanni Ceccarelli* shows. For the late seventeenth century, a similar widening of horizons allows us to understand that it is not just the question how the techniques to model the future unknown by prognosis became more and more subtle by more sophisticated mathematical calculations. If those mathematical calculations concerned such specific questions as how exponential discounting can achieve a representation of the present value of future corporate profits, then a new step was achieved. Techniques

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15 Santoro M., *Fortuna, ragione e prudenza nella civiltà letteraria del Cinquecento*, 2nd ed. (Naples: 1978).

16 Hamon P., "Gouverner, c'est prévoir: Quelques remarques sur la prévision financière dans la première moitié du XVI<sup>e</sup> siècle", in *L'administration des finances sous l'Ancien Régime* (Paris: 1997) 5–15 with the distinction between a prognostics of state finances 'au futur' and 'du futur': sixteenth century *messieurs des finances* might have had a practical vision of the near future of their accounting, but were not able to produce explicit fully developed tableaux of the state's future financial situation as a whole.

to cope with future unknowns within the field of late seventeenth and eighteenth century political economy did not just concentrate on the generation of mathematized tableaux of possible futures, but they also tried to determine the value of each such possible future that was thought to be the most likely, in the now. The ignored was not only replaced by a probable known, it was even transformed into a negotiable asset.

All three dimensions of time are necessarily linked to each other.

## 2.2 *Space and Ignorance*

The epistemic changes concerning the conception of physical space in the narrower field of geography are linked to the practical experience of space, to the change of the aforementioned means of transport, but again also distinguishable because of their belonging to a specialized field of knowledge production. The constant work of generations of learned geographers with new instruments for calculating—and measuring very differently—longitudes and latitudes before the fifteenth century Ptolemaic Renaissance, before and after the Newtonian debate around 1700 about the shape of the world<sup>17</sup> and before and after the invention of time-keeping clocks for purposes of longitude calculation around 1750 had less impact on experienced sailors and navigators than one might imagine.<sup>18</sup> But on the desk of academic geographers, these inventions could lead to real ‘shocks’, realizing that on a map, the real distance between two points and the scale of whole continents had to be altered by hundreds and even thousands of miles. The most fitting object for the history of ignorance is here certainly the emergence and treatment of empty spaces as perhaps the most evident form of the explicit visual specification of ignorance.<sup>19</sup> *Lucile Haguet* specifies that it cannot be just the question of detecting blank spots on maps, seeing them filled in the seventeenth century and then noting their re-emergence in a more carefully delimited form in Enlightenment Paris. Rather, it was the rise of a highly reflective discourse of commenting upon and

17 Greenberg J. L., *The problem of the Earth's shape from Newton to Clairaut: The rise of mathematical science in eighteenth-century Paris and the fall of 'normal' science* (Cambridge: 1995).

18 Andrewes W. J. H., “Even Newton Could Be Wrong: The Story of Harrison's First Three Sea Clocks”, in Idem (ed.), *The Quest for Longitude* (Cambridge, Mass.: 1996) 189–234; Barnett K., “‘Explaining’ Themselves: The Barrington Papers, the Board of Longitude, and the Fate of John Harrison”, *Notes & Records of the Royal Society* 65 (2011) 145–162; Dunn R. – Higgitt R., *Ships, Clocks, and Stars: The Quest for Longitude* (New York: 2014).

19 Surun I., “Le blanc de la carte, matrice de nouvelles représentations des espaces africains”, in I. Laboulais-Lesage (ed.), *Comblent les Blancs de la Carte. Modalités et enjeux de la construction des savoirs géographiques (XVII<sup>e</sup>–XX<sup>e</sup> siècle)* (Strasbourg: 2004) 177–135.

explaining the character and dimensions of the ‘emptiness’ and of what and to what degree geography was still ignorant concerning that space. Mostly, something or even a great deal was known or at least partially known and narrated concerning a given region, but now new standards within epistemic fields that specialized and separated what was to be represented on a geographical map, sought a return to the blank, a visual statement of unknowns that responded to the new principles of measurement and standards of accuracy. The ignorance exposed here was artificially constructed in some way and used as a heuristical tool to promote further research by explicitly replacing older standards with newer empiricist ones. It seems that the earlier shift of the so-called first geographical revolution followed just the reverse path when the humanist normative standard to follow re-discovered texts and Ptolemaic measurements, as the Greek notation system was then understood, replaced the previously existing empirical but rather unexplicated knowledge of Portolan mapmakers.<sup>20</sup> The juxtaposition between empirical findings as measured by voyagers and Ptolemaic data—if existent at all for a given world region—was often noted in travel reports as error during the sixteenth century, but it did not lead to a coherent reflexive discourse on the overall scale and amount of ignorance implied in the maps produced. Despite all the technical improvements such as the different forms of spatial projection developed by mapmakers, such an open exposition and even a willed use of re-defining all *as* ignored through the visual aid of the empty space was reserved to Enlightenment mapmaking and conceptions of space.

Beyond learned cartography, the link between ignorance and space continues to be of high importance. The impact on individual and collective perceptions of distances has already briefly addressed the question of how representations of the present depended on the transportation of news. But we should bear some further points concerning that subjective perception in mind. Groups and individuals both imagined space and journeyed through it, and for several years scholars have discussed the question of the historicization of ‘mental maps’, a matter that has a great deal to do with the historicization of ignorance. Ignoring a distant space, receiving news about it, elaborating a better defined vision and distinction between knowns and unknowns, all this is not restricted to cartography, it also concerns all kinds of written and oral

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20 Broc N., *La géographie de la Renaissance (1420–1620)* (Paris: 1980) 9–42; Jacob C., *The Sovereign Map: Theoretical Approaches in Cartography throughout History* (Chicago – London: 2006) 62. For Ptolemy’s notation system cf. Mittenhuber F., *Text- und Kartenträdition in der Geographie des Klaudios Ptolemaios. Eine Geschichte der Kartenüberlieferung vom ptolemäischen Original bis in die Renaissance* (Bern: 2009) 165–169.

narratives that are implied, in spatial orientation (for instance of long distance migrants as in the contribution by *William O' Reilly*). Granted, we know very well in general how the concepts and 'images' of other countries evolved within neighbouring or distant societies on a discursive level. Nevertheless, how travelers planned their journeys and how they envisioned their destinations are different questions. How precise or how fluid was this knowledge and how did voyagers cope with partial points of complete ignorance, being forced to leave without any clear idea of what the important conditions of their destinations might be? Regarding the Americas, for instance, this surely evolved through time. During the late sixteenth and seventeenth centuries, the accumulation of relevant information led to the gradual but more or less consistent reduction of what was ignored but identified as necessary, and in the eighteenth century, it seems that something akin to a standard formula of basic points had come together. Migration had become a standard activity and business, and while in fact those who set off on a voyage still did so, viewed from outside, under circumstances of great uncertainty and ignorance, within their society of departure, the re-specification of ignorance according to constant incoming news had relented. This leads to another problem that operated on the same level of generality as the links between ignorance and representations of time and space, the question of ignorance and emotions.

### 2.3 *Emotion and Ignorance*

Decades ago, Jean Delumeau started one of his books that developed the ideas of Lucien Febvre by discussing the fear attached to the Mediterranean space that a voyager or a merchant had to cross in late medieval and early modern times, emphasizing how different that experience was and how many documents use metaphors of darkness, of a lack of imagination, of orientation, of fears concerning several specified threats.<sup>21</sup> He did not specify the perhaps more fundamental problem of ignorance behind that; the fears he was interested in only regarded the undefined mixture of uncertainty and ignorance about what was 'out there'. The ignorance of the space to be crossed and its current conditions were intermingled here with the ignorance of the near future. So, the emotional attitude regarding what is ignored can involve both dimensions, of space and time in all their variations as well as aspects yet to be discussed. This certainly has its anthropological roots and one is tempted to apply bio-

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21 Delumeau J., *La Peur en Occident (XIV<sup>e</sup>–XVIII<sup>e</sup> siècles)* (Paris: 1978) 31–54: 'Mer variable où toute crainte abonde', '2. Le lointain et le prochain; le nouveau et l'ancien' (first thematic chapters after the introduction). Delumeau basically elaborated a brief idea by Febvre L., "Pour l'histoire d'un sentiment: le besoin de sécurité", *Annales* 11 (1956) 244–247.

evolutionary theories about how the human mind processes information and how emotions are linked to that. But as far as I can see, the neuroscience of emotions and of decision-making has not yet treated 'ignorance and ignoring' as an accepted object of research in terms of cognition processes, emotional attitudes, and behaviour. Some attention has been paid to the willed ignorance of emotions as a synonym for the 'suppression of emotions' during decision-making processes, but the emotional attitude towards a subject's awareness of being ignorant in certain degrees does not appear to be a prominent focus of research at the moment.<sup>22</sup> Nonetheless, it seems reasonable to suggest that the different forms of more or less conscious, more or less specified ignorance, as present in this volume as well as in many contemporary situations today, bear an emotional weight for the individuals involved. At least insofar as an unavailable piece of knowledge is sorely needed for a decision or for a given action, fear and other negative emotions become attached to the state of ignorance

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22 Agoraphobia, the fear of wide open spaces, is linked to the problem of animals and primates feeling a lack of protection. Nevertheless, on a higher epistemic level beyond instinctive forms of action, it could be interesting to consider other dimensions between unmanageable spaces, ignorance, and fear. See Kaplan S., "Environmental Preference in a Knowledge-Seeking, Knowledge-Using Organism", in Barkow J. H. – Cosmides L. – Tooby J. (eds.), *The Adapted Mind* (Oxford: 1992) 581–598. The standard neuroscientific accounts of 'emotion and decision-making' discuss the problem of priority of emotion to cognition and vice versa following William James, but do not address our problem, cf. e.g. Berthoz A., *Emotion and Reason: The Cognitive Science of Decision Making* (Oxford: 2003) 23–50. More specific theories are, for instance, those of neuroeconomics worked out by Glimcher P. W., *Decisions, Uncertainty, and the Brain. The Science of Neuroeconomics* (Cambridge, Mass. – London: 2003), which uses stochastic Bayesian calculus as an algorithm for how cognition functions with primates and therefore addresses coping with uncertainty within the very core of its model. But it does not consider the role of emotions regarding uncertainty or ignorance. Cf. similarly Idem, *Foundations of Neuroeconomic Analysis* (Oxford: 2011), in which the 'stochasticity' of human choice and decision-making is put at the centre of how to understand cognition. Still, the emotion of fear (pp. 365–366) is not linked to the subject's potential auto-perception of the uncertainties of that stochasticity. In the model of the human brain's functioning as a 'predictive mind', 'uncertainty' plays a role as a trigger for a switch from cognitive impenetrability to penetrability (that someone leaves his or her expectations and predictions aside and could be open to the perception of the not-yet-known or not-yet-believed), but the considerations of emotions concern only the question of how the predictive mind might unconsciously tend to prime those predictions that promise the best emotional arousal, cf. Hohwy J., *The Predictive Mind* (Oxford: 2013) 155, 242–249. The focus, in other words, is either on emotion or on the cognitive problem of uncertainty within neuroscientific theories of decision-making. Yet there is less on emotions *towards* ignorance and uncertainty itself *within* those frameworks.



itself, together with, and even rather than, the potentially undesirable outcome of the overall process in question. Certainly it is crucial to distinguish precisely whether we are dealing with the fear of, e.g., the catastrophic possible future results of an attack in a war decided upon under circumstances of ignorance, or if the fear is really focused on sheer ignorance, on the unknowns concerning the character of a land, of a space and the unclear dangers associated with it. But both forms, linked to each other, exist and seem, at least logically, distinguishable.

Beyond reflections on neurobiological roots, which today cannot be ignored in a discussion of the history of emotions, the greater problem is how to historicize emotions concerning the attributions and reactions used and specific to one period, or to one culture or region in the brief dimensions not of evolutionary, but of 'normal' human history. Differences here are still great. While men and women certainly had the same biological dispositions, the semantics of emotional value, in addition to the trained and socialized forms of reactions that produced fear, anger, joy etc. and how it was expressed, were very different, as is well known and has been studied extensively.<sup>23</sup> But no standard methodology of writing such histories has yet been established. Within the primary focus on ignorance chosen here, the problem of emotional attributions and reactions is present on several levels. It is not the aim here to enumerate all possible applications, but we ought to mention a few as they are represented in this volume. One prominent area is the emotions processed during travel. Ignorance might here be linked in many ways with fear, but also with positive forms such as hope, overall concerning the dimensions of space, time and events. In scholarship on the history of natural disasters, the expression of fears has received wide attention—more specific is the question of whether we can precisely determine expressions of fear and unrest concerning the very problem of ignoring—ignoring the next time an earthquake or a hurricane might happen, ignoring its potential dimensions and in so doing ignoring present measures that could be taken to mitigate future needs (cf. the contribution by *Eleonora Rohland*). This brings us immediately back to the issues of public communication about the conceptions of past, present and the future. Even within very 'rational' contexts, such as late seventeenth century English dis-

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23 Reddy W., *The Navigation of Feeling: A Framework for the History of Emotions* (Cambridge: 2001) claims to present a non-constructivist approach, but in comparison with evolutionary psychology (as n. 22), it is in fact itself a mildly constructivist approach to the understanding of emotions and their History, cf. for a discussion Plamper J., "The History of Emotions: An Interview with William Reddy, Barbara Rosenwein, and Peter Stearns", *History and Theory* 49 (2010) 237–265.

cussions on the accuracy of public accounting practices and the causes of mismatches between predictions and realities of calculations of balances of trade, fear and emotion played a significant role: the unknown future, the uncertainties and the emotions related to those seemingly technical issues were intrinsically linked with anti-Protestant and anti-English conspiracism. Better known are the later Enlightenment conspiracy theories that were generated within and about secret societies and their allegedly dreadful plans to destroy the current states and societies. Those conspiracy theories were narratives that compensated for the unknowns prevailing in a given society about a deed that happened in the past or about plans being hatched by hidden agents for the future. They thus introduced causal fictional but possible elements into an otherwise factual description of the reality.<sup>24</sup> They only functioned because a huge amount of specified ignorance as object of social communication existed in the early modern public sphere. Their relation to the collective emotions of fear, uncertainty, unrest, and helplessness is evident, but still merits further explicit attention and investigation (cf. the contribution by *Andrew McKenzie-McHarg* in this volume).

The challenges here are to identify the precise forms of emotional expression and representation and how they were linked to forms of conscious, unconscious ignorance, as well as to their degree and to the uncertainty they provoked, not to an imagined positive or negative result of an action.

#### 2.4 *Meaning and Ignorance*

A significant facet of ignorance scholarship that would require closer collaboration with more linguists and specialists of literature and arts than was possible here is the question of the relationship between ignorance and the production/communication of meaning, that is, of semantics. If one ignores the meaning of a sign, one may be even uncertain about its status as sign. Therefore, the whole field of semiotics implies the question of a pre-existing, at least supposed knowledge—of a system of *langue* that allows one to understand a given word or sentence, of a set of pictorial and iconographic conventions that permits the historical observer of an image to understand its meaning. An all-inclusive theory of a history of ignorance would probably have to start here with the foundations of sign systems. Ignorance might be involved from the very beginning, thinking for instance within the structuralist Saussurian framework of language theory: as it is a concept's distinctiveness

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24 For a definition of "Conspiracy Theory" in that sense cf. Zwierlein C., "Security Politics and Conspiracy Theories in the Emerging European State System (15th/16th c.)", *Historical Social Research* 38, 1 (2013) 65–95, here 72–73.

from others that defines it, the gap of distance/distinction between concepts and the question of if and how they are related to each other in a system, opens our purview to ignorance from the point of view of an observer and user of that very system. Logically, an unbridgeable gap between different languages would follow, because the semantic outline of a sign in one system can never be exactly identical with that of a sign from another system. This means, for a user/observer, a second level of ignorance between sign systems opens up.<sup>25</sup> The threefold semiotic theory of Peirce, adding the interpretant to sign and signifier, which is more often used within text linguistics and closer to the larger problems of a socio-historical approach to the communication of knowledge,<sup>26</sup> likewise indicates many points where ignorance is at stake on a very basic level of communication. This sometimes more vaguely addresses the bias of otherness, the problem of understanding foreign(ers) and foreign cultures, but can also be formulated quite precisely in terms of a Peirce-Austin-Gricean pragmatic approach to linguistics. If the interpretant lacks the necessary conventional knowledge for a given communication, the very process of understanding and communication stops, or at least is interrupted temporarily.<sup>27</sup> Focusing on those points of 'breaks in understanding', the weaknesses of those models have become clear only quite recently, as they always implicitly refer to idealized contexts where the communicators are sharing common conversational maxims. Four levels of knowledge that are necessary in empirical, not idealized, forms of communication eclipse Grice's implicit cultural universalism: '(1) knowledge of the other participant's culture, (2) knowledge of the other participant's personal conversational habits, (3) knowledge of and sensitiv-

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25 François A., "Semantic Maps and the Typology of Colexification: Intertwining Polysemous Networks across Languages", in Vanhove M. (ed.), *From Polysemy to Semantic Change: Towards a Typology of Lexical Semantic Associations* (Amsterdam – Philadelphia: 2008) 163–216, here 165.

26 For a comparison of the language theories in their different variations and arguments for the Peircian approach of semiosis in those contexts, see Dressler W. U., "Textlinguistik und andere Disziplinen", in Brinker K. (ed.), *Text- und Gesprächslinguistik. Ein internationales Handbuch zeitgenössischer Forschung* (Berlin – New York 2000) 762–772.

27 'When we don't know how to proceed, when we need to understand but find ourselves at a loss for how to construct a tentative working image of speaker intention that will allow us to move forward in the conversation, we are brought to an uncomfortable stop [... one would need to investigate] more deeply into the difficult metalocutionary process of exploring one's own ignorance, one's own lack of explanatory tools for understanding this or that apparently insurmountable puzzler in ordinary conversations. [...] one could argue that all we need here is better knowledge' (Robinson D., *Performative Linguistics: Speaking and Translating as Doing Things with Words* (New York – London: 2003) 194–195).

ity to human behaviour and motivation in general, and (4) determination to make sense of what the other participant is saying'—problems arise with the absence of one of those forms of knowledge.<sup>28</sup> Historians as most people outside linguistic laboratories are often faced with very un-ideal contexts involving those problematic moments of partial or complete absence of knowledge. Ignorance in these matters strongly biases historical processes of meaning construction across borders of cultures and time periods, but also across boundaries between specialized craftsmen and consumers, clergy and laymen, nobles, judges and peasants. Shared forms of pre-understanding in communication can often neither be found in the sources nor can they be assumed. This leads, at the very basis of communication, to ask how people communicate in states of partial ignorance while meaning is being constructed. From a less actor-oriented perspective, it brings our attention to the problem of ignorance produced by the selectivity of semantic potentials of signs, sign complexes and artefacts. A translation from one language into another is always, for each word and sentence, a decision, a selection from a range of possible renderings. The result represents itself in the original text in a language supposedly not mastered by the addressed readers of the translation. Translation theories model this process in various forms, with earlier ones usually supposing the transmission of one given content A in a process of coding and decoding which might lead to deformations or semantic changes, but nevertheless still communicating content A.<sup>29</sup> Today most theories instead conceive of the process as a completely new construction of meaning B in the target language, stimulated by the decoded meaning of A in the language of departure, laying stress upon the *hiatus* between both sign systems and an always existing aspect of untranslatability.<sup>30</sup> Practical problems with huge consequences arise when translators are completely or partially unable to understand a sign—a word or a *hapax legomenon* never seen before, or a different meaning of the same sign in other contexts—and nevertheless construct a seemingly functional

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28 Ibidem 199.

29 The basic concept was formulated—not for translations, but for communication in general—in Shannon C. E., “A Mathematical Theory of Communication”, *Bell System Technical Journal* 27 (1948) 379–423, 623–656.

30 Cf. e.g. Hermans T., “Paradoxes and Aporias in Translation and Translation Studies”, in Riccardi A. (ed.), *Translation Studies: Perspectives on an Emerging Discipline* (Cambridge: 2002) 10–23, here 11: ‘A translation cannot therefore be equivalent with its prototext, it can only be *declared* equivalent by means of a performative speech act’, and Venuti L., “The Difference that Translation Makes: the Translator’s Unconscious”, *ibidem* 214–241, here 216–219 on the ‘irreducible differences in translation’.

and 'correct' text in the target language.<sup>31</sup> Ignorance then biases the result, and the constructive forces of ignorance become hidden to the reader of the translation. Reflections on that process remained embryonic since Jerome in premodern times, mostly outlined in prefaces and other paratexts as opposed to specialized treatises on that subject; there are just not many texts that merit the name 'translation theory' before the sixteenth century.<sup>32</sup> But the humanist perception of distance from medieval text traditions and transmissions—now detecting 'errors' hitherto unconsciously invisible—led also to a higher degree of reflexivity concerning their own capacities of understanding during processes of translation. These were, in fact, reflections on a specific border between knowledge and ignorance concerning a given sign system, and they emerged embryonically in a historically quite precise moment, for instance with Caxton, as the contribution of *Taylor Cowdery* shows.

The selectivity of semantic potentials does not only concern words, sentences or a given text in such processes of its activation—reading and translation being forms of activating semantic potential. Likewise, groups of texts in their inherent discursive interlinkage, or even just in their material combination, being gathered or put together, have semantic potential. The limits of this are thus characterized by the selectivity of that semantic potential that,

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31 For an already classical critical overview within the narrower field of translation studies, see Snell-Hornby M., *Translation Studies—An Integrated Approach* (Amsterdam: 1988); for the more general approach of cultural transfer that emerged in the late 1980s and is currently merging with postcolonial concepts of hybridization, cf. Espagne M., "Au-delà du comparatisme. La méthode des transferts culturels", in Avlami C. et al. (eds.), *Historiographie de l'antiquité et transferts culturels. Les histoires anciennes dans l'Europe des XVIII<sup>e</sup> et XIX<sup>e</sup> siècles* (Amsterdam: 2010) 201–221. In its original formulation, the distinction between the original and target culture was more clearly upheld while formulating the logical paradox but empirical reality of the transfer despite un-identity of the transferred; for Pierre Legrand's concept of 'Legal transplants', used within the context of Legal Comparatism and more recently also within Legal History cf. Graziadei M., "Comparative Law as the Study of the Transplants and Receptions", in Reimann M. – Zimmermann R. (eds.), *The Oxford Handbook of Comparative Law* (Oxford: 2006) 441–475.

32 A recent reader is Rhodes N. – Kendal G. – Wilson L. (eds.), *English Renaissance Translation Theory* (London: 2013). A recent introduction to the relevant literature (F. M. Renier, Botley, Norton et al.) can be found in White P., "From Commentary to Translation: Figurative Representations of the Text in the French Renaissance", in Demetriou T. – Tomlinson R. (eds.), *The Culture of Translation in Early Modern England and France, 1500–1660* (Houndmills – New York: 2015) 71–85. On paratexts in general and the growth and pluralization of their content and function during the early modern period cf. Ammon F. von – Vögel H. (eds.), *Die Pluralisierung des Paratextes in der Frühen Neuzeit. Theorie, Formen, Funktionen* (Berlin – New York: 2008).

again, implies and produces ignorance. The theologico-political discursive field concerning the secular and ecclesiastical powers and their limits as represented by the school of Salamanca from ca. 1500 to ca. 1580, for example, had distinct characteristics that separated it from more orthodox monarchical Catholic concepts of papal power and from Protestant concepts about the distinction between those powers at the same time. This was an inner discursive linkage and limitation, not regarding the questions of the material distribution of authors, books, readers and followers of those ideas. However, merely the material gathering of a group of texts on an island with one Robinson Crusoe as a reader capable of at least understanding the language of those books has a semantic potential and its limits and selectivity. Even if the texts themselves belong to very different discursive fields, each of which could be represented on that island, by choice or happenstance, with just one text. From the point of view of the history of ignorance, the focus must be on the borders of inclusion and exclusion, on that selectivity; in the case of such a material gathering of texts and artefacts, their users and readers are necessarily condemned to ignorance concerning other possible texts. Just as the translator hides other possible meanings by choosing one translation and thus implying the reader's ignorance of the variety of the semantic potential of the original, the collector or composer of a group of texts—in a library, for instance—selects and therefore 'hides' other possible contents of which the user remains ignorant. This simple fact merits attention insofar as, and if, it occurs in an environment different from Robinson's island, one that would potentially allow the inclusion of many other texts. In this case the questions become, to what extent such limits of chosen sets of texts and the implied ignorance versus others is willed and unwilled, what functions it has, what purposes it might fulfil, and for whom (cf. my contribution in this volume).

But semantic potentials, as potentials, have not only absolute limits—passages translated or not, texts existing or not—to possible activators, they have also relative limits depending on the method of activation itself and on the capacities and aims of the reader or observer. A polemical Catholic text present in a collection that repeatedly cites an opposed Calvinist text in order to refute it, in so doing includes the excluded. The reader might even activate the mangled Calvinist semantic potential, not accepting the Catholic 'order' of how to read. This same phenomenon is well known for other asymmetric oppositional arrangements, like the Machiavellian readings of texts with explicit anti-Machiavellian purposes (Gentillet's *Discourse*). But this is already a very intentional form of activating a semantic potential against the 'rules of reading' inscribed to a text. On a very basic level, it is the question of if the possible reader or observer actuates the same contextual knowledge, if—to formulate

it in terms of prototype semantics—his or her set of prototypes is trained and developed in a way necessary to adequately classify a given sign and to establish appropriate associations and semantic links.<sup>33</sup> If one has never heard of the ancient Roman Gods, one might classify a picture of Juno as the Madonna. On a level of, again, greater sophistication, this is the question of how an observer is trained in an iconographical and allegorical system of meaning and how then the semantic potential of an image is realized. Often, images not accompanied by narrative explanations have many layers and *strata* of semantic potentials, such as an immediate form of representing parts of reality, and, for instance, a moral one. If an observer is trained and able to distinguish those layers at all, and if then, what semantic potential he or she finally chooses, is a difficult question discussed since the beginning of formal Art History as one of the *ur*-problems of hermeneutics. The perspective of ignorance will simply investigate the balances, proportions and the switch of selection at the borders between those layers and strata of semantic potentials, looking into how ‘subversive’ authors or painters were consciously playing with these levels, giving rise to the question of whether a reader or observer possibly *can* ignore one semantic potential in favor of another, the amoral in favor of the moral for instance (cf. for that the contribution by *John Hamilton*). Purposeful, willed, but also repressed ignorance all emerge as an important part of hermeneutical processes within complex systems of sign and representations.

### 2.5 *The Seat of Knowledge*

In practice as well as on the discursive level, a significant question with several related dimensions is who, in the end, is the knower, and where the place of knowledge is under the conditions of so much and multiform ignorance. Starting with the discursive level, the figure of the hidden unknown but supreme knower is omnipresent, most of all, in monotheistic religions, such as with Christianity’s *Deus absconditus*. It seems that the experience of ignorance and incapacity of knowing very often led to a discursive projection of the necessary but unreachable existence of the opposite, a point and possessor of complete knowledge. Speculations about the anthropological roots of such projections aside, in our specific field and within the gathered examples here, this can be seen in several very concrete forms of late medieval and early modern political life. Already the pseudo-Aristotelian and Xenophontian figure of the *despotes* that prefigures the absolute monarch who *has*, like the landlord

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33 As introduction cf. Aitchison J., *Words in the Mind: an Introduction to the Mental Lexicon*, 4th ed. (Chichester et al.: 2012). The computational reconstruction of semantic and association networks is very advanced.



carefully watching all his lands and possessions, or even *is* like the ‘eye of the Lord’ (*ophthalmos despotou*),<sup>34</sup> started a form of stylizing the king or governor as the seat of knowledge in a quite counterfactual way. Whether he really knew all that was needed or not, could be hidden behind the assertion *that* he knew it, that his decisions put an end to all questions, to all ignorance. This is a form of linking monarchical governance and knowledge/ignorance that was enforced and continued throughout the European seventeenth and eighteenth century, and cross-cultural comparisons suggest that it existed in a similar form also in other highly centralized imperial forms of governance as in China at the rise of the Manchu Qing regime.<sup>35</sup> But if this was the ‘fashioning’ of the king as omnipotent knower, to transfer the Burkean idea from ceremonial issues to epistemic ones, real and empirical ignorance was thus a constant threat to the political system as such. The century-long efforts of administrative reforms to create a better integrated form of financial information management may have had their very foundation in that emotional fear of ignorance threatening the system (cf. the contributions by *Moritz Isenmann*, *Marie-Laure Legay* for that).<sup>36</sup> One might consider these counterfactual discourses as *just* fashioning, but it seems to have been for a very long time the only answer of premodern times to what today is more openly addressed as decision-making under conditions of ignorance. Decisions about war and peace, of sending troops, of taxing and levying money or not had to be and were taken despite of the lack of greatly desired empirical information, and yet it was not acceptable that the

34 Pseudo-Aristotele, *Oikonomike*, I, 6, 1345a3; Xenophon, *Oikonomike*, XII, 20.

35 This was the thesis brought forward by Devin Fitzgerald on the Paris part of the conference that prepared this volume. On the seventeenth century imperial relay courier network system, comparable to the European postal system as it emerged since the second half of the fifteenth century, which was even earlier established, but was maintained only for governmental purposes, cf. only Brook T. “Commerce and Communication”, in Twitchett D. C. – Mote F. W. (eds.), *The Cambridge History of China* (Cambridge: 1998) 579–707, esp. 579–670—The restriction of access and therefore the missing conditions for the development of a functional equivalent to the European ‘public sphere’, underline the aspect of the emperor’s fashioning as the only one who knows all or has the right to know all.

36 For contemporary self-awareness of administrators not having the necessary overview and of various lacks of information cf. Legay M. L., *La banqueroute de l’État royal: la gestion des finances publiques de Colbert à la Révolution* (Paris: 2011) 62, 68–72; Dubet A., “La Trésorerie Générale d’Espagne au XVIII<sup>e</sup> siècle: un contrôle général des finances royales”, in Eadem – Legay M. L. (eds.), *La Comptabilité publique en Europe, 1500–1850* (Rennes: 2011) 137–154.

ruler, even if human, was ignorant—just as it was not acceptable to imagine an ignorant God.

What has been shortly addressed here regarding political decisions about *whether* to act, and whether this or that option was opportune and desirable in terms of political planning (cf. above the section on the future), has its parallel in the realm of legal thought and practice concerning decisions of whether a deed or action had been *legal* or a sin or a crime. Again, in the medieval and early modern eras, the parallel between the judge and God often directed and framed the more general discourse, as *Mathias Schmoeckel* remembers in his contribution. Yet here the everyday practice of judging in court with the help of dense academic theory was at stake and had been developed earlier and instrumentally linked with written consiliar legal texts and the practice of judging itself, than was the case for the field of politics. This meant that legal discourse precociously elaborated a set of reflexive forms of degrees and forms of ignorance which included the perspectives of the judge and of the accused, ignorance of a fact and of the law, in addition to ignorance as (part of) the crime or of the sin and ignorance as possible form of excuse.<sup>37</sup> This concerned foremost the development of legal thought and practice after the introduction of the inquisitorial principle of investigation *ex officio*, a circumstance which, as is well known, replaced the actors with the empirical *truth* of what had happened at the epistemic centre of every process of judgment.<sup>38</sup> But this still led to a two-sided repartition of knowledge and ignorance because the ultimate questions were about the knowledge of the judge, to what extent he was allowed to remain ignorant, and to what extent he might be allowed to override empirical knowledge by rules dictated by his conscience. At the same time, this shift also led to the empowerment of testimonies, witnesses and the people that had to be accepted as the seat of knowledge about what had actually happened but also about customs and customary law prevailing in a given place, as the dense case study by *Govind P. Sreenivasan* shows concerning the status of peasant testimonies and the legal meaning of silence in early modern conflicts about land possession. Courts now sent out officers to produce interrogatory material of solely an empirical nature because

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37 See the contributions of Smail, Schmoeckel and Sreenivasan.

38 Trusen W., "Der Inquisitionsprozess. Seine historischen Grundlagen und frühen Formen", *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte Kan. Abt.* 74 (1988) 168–230; Lavenia V., *L'infamia e il perdono. Tributi, pene e confessione nella teologia morale della prima età moderna* (Bologna: 2004); Schmoeckel M., *Humanität und Staatsraison. Die Abschaffung der Folter in Europa und die Entwicklung des gemeinen Strafprozeß- und Beweisrechts seit dem hohen Mittelalter* (Cologne et al.: 2000).

they lacked the necessary knowledge about the law that was to be adopted to a given case. Some time passed before a moral and hermeneutical question arose: if one—always ungodly deficient—human judge was better than a plurality, or—to put it on a more general level—if plural and therefore partially ‘statistical’ or democratic forms of ‘the judge’ were more appropriate for such an inductive empirical, and itself often open-ended instead of a deductive, form of truth production. The shift to the empirical meant that in some way or another ignorance could never be banished completely. There could always be another clue, another fact discovered that might cast doubt upon the previous state of accepted knowledge. The legal system (Beccaria reasoning about juries instead of singular judges) had here again a parallel with the contemporary political system (Abbé de St. Pierre reflecting on the polysynody of a plurality of councils instead of the abovementioned all-knowing monarch for instance). In both the fields of law and politics, the dimension of time was again intrinsically linked with the problem of ignorance. Ignorance, after all, prevailed and grew the shorter the time to investigate empirical evidence took, and as procedures—if they existed at all—lengthened. For a long time Legal History has placed tremendous value on the study of court records and those interrogatory products of the aforementioned epistemic shift. One frequently finds noted how often interrogated peasants or citizens answered with variations of ‘I do not know’ to the judge’s or his officers’ questions. But seldom was this systematized and linked to the contemporary development of the legal discourse of *ignorantia* in its many forms. Seen as part of a history of ignorance, these secular shifts within the legal and court system studied since the beginning of legal history reveal an astonishingly and somewhat paradoxical process of constant triggers and responses of ignorance, from the point of the one who judges to the one who gives testimony and who is judged.

In both fields, the information sought was operative, usable, and applicable as a parameter in a decision-making process. In the case of the legal system, this was connected to a higher form of truth, a truth finally only owned by God, the last judge. It seems that the philosophical parallel to this higher, less applicable form of truth that one just aims for as a purpose on its own, is the search for ultimate truth and wisdom. The late Enlightenment provides us again with a surprising instance of the extent to which philosophers could stretch and push an analogous form of reasoning about the last and final seat of possession of knowledge. As the contribution of *Andrew McKenzie-McHarg* shows, secret societies, starting with the Freemasons, developed a para-institutional discourse about the ‘unknown superiors’, their identity, their quasi constitutional form—all that in a seemingly secularized parallel to the *Deus absconditus*. There were supposed to be unknown superiors governing the secret society,

and its members rising in its ranks achieve an always higher position and greater knowledge, but always remain ignorant of the identity of those superiors who even never can be known. It is as if a rhetorical or logical playful figure of thought had been transformed (impossibly) into an institution. But this was actually meant seriously. Political, legal and philosophical epistemic settings dealing with ignorance thus tend to anthropomorphize the target endpoint of the epistemic process itself. And insofar the process is logically endless, those forms of the god-like ruler, the God replacing judge, the unknown superiors as the ultimate possessors of knowledge, serve as regulatory principles, targets and even as compensations for what is unreachable in this world.

### 3 Problems of Historicization

While several historical specificities have already been indicated above, the first section mostly served to consider the range of questions, the dimensions of a History of Ignorance. Some short methodological remarks shall follow that consider the problems of historicizing instances and processes of ignorance, more specifically for the late medieval and early modern examples chosen here.

#### 3.1 *Measuring Ignorance*

Instances of explicit and conscious forms of ignorance, regardless if the term itself was used or a paraphrase, are—at least at first glance—easily approached by a history of ignorance. Attention and hermeneutical sensitivity for the context and notions used have to be applied and can reveal many new insights as neither many case studies nor even a comprehensive history of the notion of ignorance/ignoring in its practical dimensions exists. But the methodologically more challenging question is how to deal with the many cases in which the historian uncovers instances of unconscious ignorance (nescience) in a long period before, by way of an epistemic shift, or other ruptures and developments. Usually the historian detects a historical state of nescience by explicitly or implicitly ‘measuring’ the past forms of communication—usually with standards that are commonly acknowledged to be later developments of earlier models. A genealogical link is presupposed. The contribution of *Adam J. Kosto* concerning the history of medieval documents of safe conduct provides a very strong example, placing such texts at the beginning of histories of identities, of passports and visas. But a closer look at the documents themselves shows that this genealogy raises some problems. A document produced for purposes of identification answers the problem that A does not know if B is B and that A has the right to determine that and that there are several

consequences linked to that (such as the granting of rights by A to B or the recognition by A of rights of B accorded to him by a third). Passports (and their associated visas) use for this all kinds of representative language and pictorial signs. But Western medieval safe conduct documents apparently contained nearly no description, almost no use of physically descriptive language was made. While we still must suppose that the documents were produced at least partially for the same purpose of identification—and then of stating that B has several rights to safety—the document alone was unable to prove that B *was* B. If the safe conduct document was stolen by C, no mismatch between the descriptive content of the letter and its bearer would be evident. This seems to be an effect of the well-known character of Western medieval scripturality and of its culture of letters in particular, making the bearer more important than the letter. The carrier of the letter would reveal orally most of the information; the letter often was rather a ceremonial item referring to that oral presentation (cf. the typical clause ‘*Alia nova, que in partibus nostris habentur, lator presentium vobis oretenus explicabit.*’).<sup>39</sup> This might have well worked with a newsletter, but it is hard to understand how that functioned effectively for a safe conduct document. It leads to complete auto-referentiality (This letter grants safety to B, who B is will tell you the carrier of this letter who is B). The otherness of the Middle Ages enters here in a striking way, and Kosto points to the fact that the very genealogy of medieval safe conduct documents and passports might be a misleading idea. For a history of ignorance, this otherness is important in many ways. First, it reminds us that the historian has to be careful not to take (seemingly) isomorphic objects and conditions to be homologous, even in a genealogical way, with later ones. As in this case, the empty spaces marking a *terra incognita* in fifteenth century maps are perhaps isomorphic, but not homologous with the highly reflective forms of explicit empty spaces accompanied by explanatory discourses of French Enlightenment cartography (contribution *Lucile Haguët*). To understand how medieval travelers and defenders of a city’s or a territory’s security operated under those conditions

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39 Schubring K., “Der Brief Konrads von Lützelhardt an seine Mutter. Erläuterungen und kritische Edition”, *DA* 51 (1995) 405–432, here 428; Hoffmann H., “Zur mittelalterlichen Brieftechnik”, in Repgen K. – Skalweit S. (eds.), *Spiegel der Geschichte. Festgabe für Max Braubach* (Münster: 1964) 141–170, here 147. The extensive use of the descriptive narrative, and therefore the emergence of a distinctive genre of newsletters or letters with news, was a late arrival in the medieval literary culture, arriving mostly only after the Aragonese paper revolution around 1300, cf. Zwierlein C., “Gegenwartshorizonte im Mittelalter: Der Nachrichtenbrief vom Pergament- zum Papierzeitalter”, *Jahrbuch für Kommunikationsgeschichte* 12 (2010) 1–58.

of prevailing ignorance in terms of the unavailability of identificatory descriptions, the historian will have to describe the contexts and actions with the help of other documents and he would probably do very well heuristically to ignore modern-day passports and visas as much as possible. The problem is the ascription by historians themselves in terms of the deficit. One might well suppose that if the medieval world functioned in such a state of nescience and non-use of descriptive passports, then it worked, full stop. The attempt to describe the character of that nescience active in the medieval world is, necessarily, in itself a modern question. One can try to describe various forms of oral communication, of signs, of ceremonial importance and how a higher value was placed upon the very possession of things, perhaps as functional equivalents to later forms of identificatory communication.

In this way, nescience only becomes visible by measuring it against a scale of explicit ignorance or even against a scale of knowns or know-hows. One might therefore formulate the simple but important rule that this unavoidable form of measurement, usually of an inter-cultural or an inter-epochal comparison, should always be done as clearly and explicitly as possible. Moreover, those different forms of a history of explicit ignorance and of forms of nescience are interconnected. The case study by *Giovanni Ceccarelli* shows how, on the one hand, no better instance of a new terminological specification of an unknown (the unknown future of a hazard destroying a ship) was achieved in a highly explicit way within late medieval trade, coining the famous term of *risico*. On the other hand, there is complete consensus in scholarship that the merchants acted for centuries in a state of nescience concerning all higher forms of mathematical probabilistic accounting techniques, as those were only developed in the late seventeenth century (Huygens, Pascal etc.). Techniques of coping with non-knowledge and nescience are intertwined. The historian then can first develop a statistical prosopographic approach to show that behind the black box of nescience there was apparently something like an obfuscated illiterate form of ‘crowd know-how’ among a group of experts regarding how premiums should be determined—as Ceccarelli shows us. In a very similar way, as the study by Smail reveals, it seems that the late medieval experts of value estimation in pre-instrumental times developed such a ‘know-how’ or what is called tacit knowledge,<sup>40</sup> although direct answers to questions about sizes and

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40 For a reconstruction of how Polanyi's early concept of ‘tacit knowledge’ that integrates the Peircean semiosis into the understanding of how much implicit knowledge is needed, active and expressed in communication, and was transferred into the sociology of knowledge—the ‘tacit know-how’ adduced above—cf. Zappavigna M., *Tacit Knowledge and Spoken Discourse* (London – New York: 2013) 1–43.

values in court records still very often contained an explicit 'I do not know'. The historian can reconstruct the existence of experts' know-how only by statistical induction from many cases; no explicit model to guide the process were worked out, or at least they left no traces. Both are similar to the prior example of the medieval functional equivalents to later identificatory communication. But reconstructing 'tacit knowledge' is at once necessary but not sufficient in all cases to show how things worked nevertheless. It is often unclear whether tacit knowledge or ignorance was prevailing. The tacitness itself might be sometimes a welcome formula to stop investigating into *how* it worked. The interest lays in accepting and understanding these coexistent conscious and unconscious forms of past ignorance. A history of ignorance can be just an approach to investigate them and to make them visible by avoiding the necessity of framing them within the narratives of genealogical precursorship. If people managed for centuries to live and work with those intersecting forms of ignorance (as we do in our own time with different forms), the historian's answer cannot always be simply that 'they did not *yet* know . . .'. The question must be how they did not know, how they even successfully ignored matters.

### 3.2 *The Epistemic Shift to Empiricism*

The history of the notion of ignorance is not a major focus of this volume, but a short and necessarily unexhaustive and imperfect look at it may serve here to illustrate one major methodological point that affects most of the contributions and their combination spanning from late medieval to the end of early modern times: the shift to empiricism.

Medieval scholarly discussions of *nescientia* and *ignorantia* mostly concentrated on these concepts as a problem of moral theology and law, receiving and developing here the mixing already achieved between the Greek—mostly Aristotelian—philosophy of the relationship between will, conscience and action and its legal treatment crystalized in the Justinian *Corpus iuris*, most prominently in the title Dig. 22, 6. The basic terminological difference between the ignorance of the law that 'hurts' (that is not excusable) and the ignorance of the fact that can serve as excuse in a legal procedure was a major distinction that recurred frequently.<sup>41</sup> In the Aristotelian framework, the problem of ignorance was far less worked out in relationship to the theory of cognition and the

41 Winkel L., *Error iuris nocet: Rechtsirrtum als Problem der Rechtsordnung*, vol. 1: *Rechtsirrtum in der griechischen Philosophie und im römischen Recht bis Justinian* (Zutphen: 1985); Cerami P., "Ignorantia iuris", *Seminarios complutenses de Derecho Romano* 4 (1992) 57–85. It is important to note that during the whole process of reception, the notions of *error* and *ignorantia* were constantly interwoven.



methodology of science, than in the context of the theory of action and the question of how lacking knowledge (*agnoia*) affects human action.<sup>42</sup> The scholastic theory of the scientific method and cognition would therefore usually start with the basic deductive scheme that the human reasoning can only proceed from knowns to grasp the unknown, distinguishing in introductory passages between the human form of cognition constraint to the *discursus*, then proceeding step-by-step, while only God, and—a bit less—the angels dispose of the *intellectus*, the immediate cognition of the truth.<sup>43</sup> As God's knowledge was perfect, encompassing all dimensions of past, present, and future, it was absolutely stable. There could be no increase and no decrease, and reflections about a *nescientia Dei* would be a *contradictio in adjecto*. The methodology of the human rational process of cognition concentrated on the safe way to direct that necessarily imperfect (as human) form of step-by-step reasoning and therefore focused on the perfection of syllogistic reasoning, highly differentiated in late medieval supposition logic. It was an enrichment in an involutive way within the same directions. Even the late medieval schools that started to move away from the deductive principle but still within the Aristotelian framework (Zabarella, Nifo, Pomponazzi) did not work out more sophisticated reasoning about the opposite of the knowledge, of ignorance, because even the combination of induction and deduction in a double *regressus demonstrativus* could still concentrate on the perspective of the singular thinking human.<sup>44</sup> The major field where related problems were dealt with was instead speculations about contingency and debates over *de futuribus contingentibus*, and here a line of reasoning about the borders between the knowable and the

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42 Aristotele, *The Nichomachean Ethics*, 1110b27–1111a1.

43 The best short overview on the reception of the pseudo-Dionysien 'dihairein' as the 'discurrere/discursus' in not always systematic opposition to the 'intellectus' is the editors' introduction in Thomas Aquinas, *Expositio libri posteriorum (Opera Omnia*, tom. 1 2, ed. Fratres Praedicatores (Rome – Paris: 1989), vol. 1/1, Z. 46–48 (= p. 4s.)); cf. also Böhler D. – Gronke H., "Diskurs", in *Historisches Wörterbuch der Rhetorik* 2 (Stuttgart: 1994) col. 764–819.

44 Randall J. H., *The School of Padua and the Emergence of Modern Science* (Padua: 1961); Kristeller P. O., *La tradizione aristotelica nel Rinascimento* (Padua: 1962); Wallace W. A., *Causality and Scientific Explanation* (Ann Arbor: 1972); Garin E., *Aristotelismo veneto e scienza moderna* (Padua: 1981); Olivieri L. (ed.), *Aristotelismo veneto e scienza moderna*, 2 vols. (Padua: 1983); Olivieri L., *Certezza e gerarchia del sapere. Crisi dell'idea di scientificità nell'aristotelismo del secolo XVI* (Padua: 1983); Jardine N., "Epistemology of the Sciences", in Schmitt C. B. et al. (eds.), *The Cambridge History of Renaissance Philosophy* (Cambridge: 1988) 685–711.

unknowable was always in sight.<sup>45</sup> But the terminological development of nescience/ignorance happened almost exclusively within the aforementioned fields of moral theology and law. Here the epistemic background of what was treated as a normative problem remained obfuscated.<sup>46</sup> This becomes evident if one considers how more recent legal history has tried to reconstruct the socio-political context of the genesis of the passages and fragments in Republican and then Roman imperial times that were later codified in the Digests. It seems that the different variations of the *ignorantia-iuris-nocet* sentence entered the Roman jurisprudential, pretorial and legislative system first of all from a Republican perspective of basic social pedagogy. Later the institutional arrangement between the imperial chancery, and a highly developed specialization of advocates and jurisprudential sophistication—which made it impossible that an untrained *cives* ‘just’ knew all laws—have their decisive impact on that concept. Although in Republican times, it was thought to belong to civic culture and obligations that the laws of the Republic had to be molded, even taught by the *pater familias* and by the *cives* to its clients, in the later imperial and more institutional era, the obligation to know the law was counterfactually upheld and delegated. One was obliged to know the law in all its intricate complexity, comprehensible only to legal specialists, but the individual had to ascertain his legal situation by himself through the use of the representatives of this legal and jurisprudential system.<sup>47</sup> These historical contexts were not available to a pre-humanist medieval examination of the codified norms.<sup>48</sup> The socially relative connotation of ignorance (ignorance/knowledge relative to a given environment, to a stratified or an emerging functional differentiation of society) was lost, and the terms became absolute. Those current re-contextualisations remind us of the empirical realities of knowledge distribution and of the problem of how one can, and to what degree, reprehend someone for a defect in his or her knowledge, if that knowledge system was already so complex that only specialists could claim to master it. In medieval times these socio-epistemic problems were transmitted only in

45 Cf. e.g. Bowlin J., *Contingency and Fortune in Aquinas's Ethics* (Cambridge: 1999).

46 Hedwig K., “*Agere ex ignorantia*. Über die Unwissenheit im praktischen Wissen bei Thomas von Aquin”, in Craemer-Ruegenberg I. – Speer A. (eds.), *Scientia und ars im Hoch- und Spätmittelalter* (Berlin – New York: 1994) vol. 1, 482–498, here 491.

47 Cerami, “*Ignorantia iuris*” 69, 77–78.

48 On the late emergence of historical reading of the Roman law cf. Gilmore M. P., *Humanists and Jurists: Six Studies in the Renaissance* (Cambridge, Mass.: 1963); Troje H. E., *Graeca leguntur. Die Aneignung des byzantinischen Rechts und die Entstehung eines humanistischen Corpus iuris civilis in der Jurisprudenz des 16. Jahrhunderts* (Cologne – Vienna: 1971); Idem, ‘*Crisis digestorum*’. *Studien zur historia pandectorum* (Frankfurt a.M.: 2011).

embryonic form in glosses to legal texts where they appeared mostly in historically later fragments, as with Labeo. Instead of that, we find a precise and logical distinction between different notions and forms of ignorance with nearly every scholastic author that reasoned about moral theological problems, among whom Thomas certainly achieved important canonical status.<sup>49</sup> One might say that for all distinctions of the notion of ignorance that concern basic individual human action, that is the ‘actor’s perspective’ in current terminology, one could easily replace the terms taken above from twentieth century sociology with those from Thomas without any loss of precision. Nescience (*nescientia*) is simply the complete absence before and beyond the moral discourse about its sinfulness (*simplex negatio scientiae*). But every ignoring is finally considered to be a voluntary act from the perspective of moral theology. Ignorance then is the privation from science (*privatio scientiae*) in a defective form of will, unwilling (*involuntaris*), or in several forms of wilful ignorance according to the degree of active voluntary concentration on the not-knowing a) *ignorantia voluntaris directa*, b) *ignorantia voluntaris indirecta* (he defined it with the adverb *directe/indirecte*) the latter meaning ignorance through negligence—*ignorantia per negligentiam contingens voluntaria*—and c) purely accidental ignorance, which can nevertheless entail sin: *ignorantia voluntaria per accidens*.<sup>50</sup> Current sociology certainly does not reason in terms of ‘sin’, but the question of conscious, unconscious, willed, unwilled, and of the ‘negative (non-)knowledge’—something ignored, of which someone knows that it is knowable but he or she decides it to be unimportant—as discussed today are all quite easily translatable into Thomist terms. This serves again as a reminder that the application of a terminology to the historical objects as such can lead to an ahistorical static form of history. The scholastic thinkers took several of their terminological distinctions from Roman law, just as Roman law had been partially influenced by Greek philosophical thought. Canon law received it

49 Hedwig, “Agere ex ignorantia”; cf. for instance the application of the already traditional distinctions between *nescientia simplex*, *ignorantia erronea* and a threefold distinction of the relationship between ignorance and sin, as well as the reception of the ‘ignorantia facti’, not citing the Digests, within the question of whether Adam’s original sin was committed through ignorance (Duns Scotus, *Ordinatio* II, Dist. 22 unica = *Opera omnia*, vol. III/1, ed. G. Lauriola (Alberobello: 1998) 1149–1150). Even if ignorance could be ‘invincible’ as a legacy of man’s corrupt nature, it would not excuse the sinner, as was maintained by the Sant’Ufficio against Jansenists as late as 1690, cf. Delhaye P., “L’ignorantia iuris et la situation morale de l’hérétique dans l’Eglise ancienne et médiévale”, in *Études d’histoire du droit canonique dédiées à Gabriel Le Bras*, 2 vols. (Paris: 1965) vol. 2, 1131–1141, here 1139–1140.

50 Cf. Thomas Aquinas, *De Malo*, quaestio III, art. 7 et 8 (ed. R. Busa, cf. [www.corpusthomicum.org](http://www.corpusthomicum.org)).

likewise, not only in the parallel passages on procedure and excuse, but also as a more pragmatic problem of deficiency, as conditions to be checked with the clerics and even as punishable crimes (a bishop ignorant of the scriptures and a *clericus illiteratus* are problems canon law had to deal with).<sup>51</sup> This level of ignorance, just as human vice and deficiency, is different from the *ignorantia-facti*-problem with which the more general epistemic question of acquisition and distribution of knowledge was at least associated, even if obfuscated by its normative treatment. When the famous Baldus de Ubaldis, who usually concentrated on civil law, offered some rare comments on Canon Law and the problem of *ignorantia* around 1400, we see how all those fields of academic reasoning were interwoven. He certainly cited canon law in his remarks, but for the most part referred to the basic norms of the Digests, and to the scholastic tradition of moral theology, especially Bernard.<sup>52</sup> The most sophisticated reflections on ignorance in late medieval times, the concept of the *docta ignorantia*, elaborated so admirably by Cusanus, excelled at linking the problem of ignorance to the general problem of cognition, but otherwise remained in the preformed framework set out by the already mentioned basic distinction between human ratio *per discursum* and the absolute momentary and total *intellectus* only possessed by God. It also only concerns one object of knowing, God (with the subordinated problems of knowing God's name etc.). The paradox of learned ignorance refers to man's necessary imperfect step-by-step approach toward the intellect's target 'object', God, while also knowing its ultimate impossibility. The follow-up paradoxes of God as the absolute intelligible but at the same time the absolute unintelligible are well illustrated in the image of a man looking into the sun. There is no question that the sun is the most intelligible, brightest light at all, but looking into it is impossible; the eye is too weak and has to be closed. The sun as sun therefore remains unintelligible to the eye even if it is the most intelligible object.<sup>53</sup> This brought Cusanus,

51 Lottin O., "La nature du péché de l'ignorance. Enquête chez les théologiens du XII<sup>e</sup> et du XIII<sup>e</sup> siècle", *Revue Thomiste* 37 (1932) 634–652, 723–738; idem, "Le problème de l'*ignorantia iuris* de Gratien à Saint Thomas d'Aquin", *Recherches de Théologie ancienne et médiévale* 5 (1933) 345–368; Merzbacher F., "Scientia und ignorantia im alten kanonischen Recht", *Mittelalterliches Jahrbuch* 2 (1965) 215–223.

52 Baldus de Ubaldis, "Apostillae ad mercuriales de Regulis iuris", no. 26 'Ignorantia'. For that rather atypical text of Baldus cf. Patrick J. Lally, *Baldus de Ubaldis on the Liber sextus and De regulis iuris; text and commentary*, vol. 1, Ph.D. dissertation (University of Chicago: 1992) 318f.

53 Nikolas of Cusa, *De docta ignorantia I, De Deo abscondito, De docta ignorantia II, Apologia doctae ignorantiae*, in Idem, *Philosophisch-Theologische Schriften lat./dt.*, vol. 1, ed. L. Gabriel, D.-W. Dupré (Vienna: 1964) 191–591, here 542 (for the metaphor of the sun).

as others, close to mystical experience as brief embraces of the unknowable.<sup>54</sup> The early humanists from Petrarch to Agrippa, with their tradition of reasoning about their own ignorance and the *vanitas scientiarum* (*humanarum*) are insofar a different form, as here, the question was not how the gap between *discursus* and *intellectus* could be transcended concerning the one object 'God', but as the more technical methodological problem of cognition and the production of scientific knowledge were concerned. They openly rejected Aristotelian deductionism which, in the very end, always leads to a prior knower, the master Aristotle or Plato himself, as the progress from knowns to unknowns had to start somewhere, necessarily with a known taught by an ultimate teacher.<sup>55</sup> It was not yet replaced by a new hermeneutics, but, and insofar similar to the humility of Cusanus, with the Christian's modesty and self-restriction to adore God who is, in the end, the creator of all that man can only imperfectly understand.

There is no question that the seventeenth century shift to empiricism altered these conditions. And because Bacon, Pascal and Locke are so well known for it, and as the already existing literature on historicizing ignorance always refers to them, there is no need to present here an exegesis of Locke's chapters on ignorance, in which he coined the famous term 'the dark side of knowledge'.<sup>56</sup> It is now not the *umbra veritatis* of scholastic and post-scholastic thinkers who often applied the metaphor of light and shadow to the problems of knowledge, truth and its opposites—because human truth is defective and

54 Duclow D. F., *Masters of Learned Ignorance: Eriugena, Eckhart, Cusanus* (Aldershot: 2006) 184, 317; Dupré L., "The Question of Pantheism from Eckhart to Cusanus", in P. J. Casarella (ed.), *Cusanus: The Legacy of Learned Ignorance* (Washington: 2006) 74–88 for Cusanus's concept of the knowability of God depending on Master Eckhart.

55 Petrarca Francesco, *De sui ipsius et multorum ignorantia*, ed. E. Fenzo, lat./ital. (Milan: 1999) 216.

56 Locke John, *An Essay Concerning Human Understanding* [1689], ed. P. H. Nidditch (Oxford: 1975) IV, 3, § 22, 24, pp. 553, 555. The §§ 22–27 in the chapter "Of the Extent of Humane Knowledge" represent something like a theory of ignorance within Locke's cognitive theory. An earlier parallel to that are several fragments in Pascal Blaise, *Pensées* [1670], ed. M. Le Guern (Paris: 1977–2004) especially the famous n. 185 on the two infinities of science, but also n. 77 and other fragments. Contemporary philosophy of science often refers to those reflections by Pascal, e.g. on 'knowledge' as a ball and the question, if then the border of 'ignorance' equates with the size of the surface or of the diameter of the ball, cf. Mittelstraß J., "Gibt es Grenzen des Wissens?", in Idem, *Wissen und Grenzen. Philosophische Studien* (Frankfurt a.M.: 2001) 120–137.

therefore only a shadow of God's.<sup>57</sup> With Locke, the pure logical other side of (human) knowledge gained empirical heft. The empiricist shift made morally indifferent ignorance—what would have been Thomas' *nescientia* in which he was largely disinterested—an object of its own concern. Now, the questions of its shape, its size, the proportion of its development and potential growth in relationship to its twin, knowledge, emerged. This entailed a methodology of distinguishing between kinds of ignorance, delimiting and crafting the frame of ignorance(s). One therefore had to devote distinct chapters to 'ignorance' in theories of cognition and methodologies of how reason can progress. In so doing, empiricism reified 'ignorance'—in different terminologies—as subject and object of knowledge production itself. The above mentioned reflections on its size and speed of its growth implicitly refer to a concept of collective knowledge production and science, where the question is not how one human can know and learn, but where the subject of knowledge production is, so to speak, humankind, regardless of if one member really knew everything in his discipline or not. Furthermore, the increase and possible decrease of knowledge/ignorance was thought of in secular terms and, first implicitly, only later explicitly, as open-ended. Pre-Darwinian botanists like Linnaeus still thought the number of species to be discovered as strongly limited by God at the moment of creation.<sup>58</sup> Reasoning about biology's unavoidable ignorance of the majority of all biological species in the world, as we are used to today,<sup>59</sup> were certainly not possible even in the later eighteenth century. But despite such a still prevailing imagined finite nature of the progress of science, its daily and closer future horizon opened up with the empiricist turn.<sup>60</sup>

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57 'Veritas corporis temporaliter contracta est quasi umbra veritatis corporis supertemporalis' (Nicolas of Cusa, "De docta ignorantia II" 470).

58 Lepenies W., *Das Ende der Naturgeschichte. Wandel kultureller Selbstverständlichkeiten in den Wissenschaften des 18. und 19. Jahrhunderts* (Munich – Vienna: 1976) 52–77; Koerner L., *Linnaeus: Nature and Nation* (Cambridge, Mass.: 1999) 45.

59 Because we think firstly the overall number of species is far too large to ever be calculated by the limited human resources of the planet's specialized botanists, and secondly—and logically far more important—because the observed object itself changes by the laws of evolution, that observation is impossible—species dying out before ever being seen, others developing.

60 It is impossible to cite all the major works in the History of Science here, but cf. on the progressivist impulse of empiricism Rouvillois F., *L'invention du progrès, 1680–1730* (Paris: 1996) 75–82; Licoppe C., *La formation de la pratique scientifique. Le discours de l'expérience en France et en Angleterre (1630–1820)* (Paris 1996) 30 and passim on the link between the epistemic turn and experiment/experience, the formation of a community of experimentalists and 'progress', and the classic works on the institutionalization of empiricist



While not being a core problem of this volume, the shift to empiricism certainly affects many of its contributions as a latent and hidden force. That development and those shifts should be recalled here for comparing it with the fields studied in this volume and the relationship between non-empiricist and empiricist approaches beyond the field of science—itsself, for sure, markedly changing from a world of *trivium/quadrivium* university organization to early modern differentiations. Many of the problems treated here concern, for instance, empiricist or at least empirical turns before and beyond scientific methodology. The shift to inquisitorial investigation created a practical field of interrogation and knowledge production that was, in its way, empiricist *avant la lettre*. The distinction between specialized spheres of law—the law of merchants, but also of local customary law for instance—that arose in medieval times gave rise to a myriad of empirical relationships between knowledge/ignorance that superseded normative categories of cases under existing law. Late medieval financial administration, taxation, early forms of population estimation, notation and accounting, the early ‘mathematization’ of urban culture and trade presented here, and merchants’ practical ‘expert’ knowledge (cf. *Daniel Smail’s* contribution) are all empirical in their practice, albeit institutionalized, even somehow empiricist, beyond a theoretical discourse that would have accompanied them.<sup>61</sup> This means that for medieval times one either concentrates on the prefigured manifestations of speculative or moral treatment of ‘ignorantia’, or one largely applies questions and terminologies which have themselves developed, shall we say, from Locke to Merton and beyond, in other words, with a clearer cognitive distance between language of description and that of the sources. For early modern times, the situation is different, the later the more recursive. Certainly, descriptive language and thoughts about empiricist ‘ignorance/knowledge’ remained usually more restricted to or appeared first within one subfield of society—science/academic philosophy—while other fields remained unaffected for a long time, as in medieval times. But for those fields in which empiricist theory began to inform practice, the historian’s task becomes a new one, insofar as the question must be how a specific form of empiricist theory (Bacon . . . Lavoisier) had

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researchers which enhances the collectivization of science’s enterprise—quasi representing the most knowledgeable part of ‘humankind’—in a practical way, Shapin S. – Schaffer S., *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life, with new Introduction* (Princeton: 2011); Brian É. – Demeulenaere-Douyère C., *Histoire et mémoire de l’Académie des sciences. Guide de recherches* (Paris et al.: 1996).

61 Cf. Feller L., “Sur la formation des prix dans l’économie du haut Moyen Âge” *Annales. Histoire, Sciences, Sociales* 66 (2011) 627–661.



a specific shape and prevailing assumptions about how to cope with unknowns and ignorance that had an impact on the overall outcome of the scientific, administrative or economic process in question.

Briefly put, the Middle Ages were characterized by a parataxis of a realm of practice involving tacit forms of coping with ignorance on the one hand and of moral theology and canon law theories of *ignorantia* restricted mostly to clerical circles and largely contemplative in character on the other. The Early Modern era, while inheriting terms and partially the semantics of ignorance from those times, witnessed the development of different kinds of theoretical reasoning. There was a continuity of the normative form with many sub differentiations embedded now as guiding norms of judgment into the framework of territorial and church courts and other institutional bodies, such as the Inquisition, penitentiaries etc. Another general level of theory emerged concerning universal empiricist theories of memory and forgetting—of whole civilizational achievements, but also in terms of the individual and smaller collective processes. Mid-term ‘theories’ of administrative, political and economic practice arose in which dealing with unknowns and ignorance became a part of the approach. Practice itself—from the merchant communication system to state administration—underwent significant ‘scripturalization’. The state and other institutions became themselves actors in the empiricist shaping of their own territories, their people, and the world. Decision-making processes became ingrained within written communication, and along with that, the distance between ‘theory’ and ‘practice’ itself shrank. As the contributions of *Fabrice Micallef*, *Moritz Isenmann*, *Eleonora Rohland*, *Marie-Laure Legay* show, mémoires and advisory texts on political affairs, on state finances, means of security production regarding natural hazards or on the balance of trade as a whole oscillated between carefully formulated theoretical compendia and the everyday work of advising, counselling, and controlling the decisions to be taken. Awareness of uncertainty, incompleteness of knowledge, and the lack of data, came to be seen as a problem from the bottom-up perspective of looking for solutions for empirical problems and questions rather than from the top-down view of the human intellect’s capacity for rational reasoning. It becomes more of a functional problem to be coped with and to be solved, instead of a moral deficit to be condemned. As such, this is very well established and research can only proceed slowly in investigating more deeply new parts of that process—no one here claims to re-discover old processes such as ‘state formation’, ‘institutionalization’ and so forth. But the perspective on ignorance and unknowns, in this wider dimension, still seems far less present in the relevant studies. The major shifts involved can only be *represented* here, in a few pages, by that parallel shift on the level of notions and concepts, but this is

not the whole. Instead, for each part of society, for each individual process of institutionalization, the focus is on how unknowns were coped with, how they were specified, conceived and theoretically framed, all of which should grant new insights. At least in what has been read by the group of contributors here, this subject still seems largely un- or underexplored, perhaps sometimes mentioned on an isolated page in a book or article, but seldom raised to a more generalized point of view.

### 3.3 *Conjunctures and Cycles*

A third interesting methodological problem is whether given processes and developments of specifications of ignorance, of developing coping methods, of partially transforming ignorance into knowledge, have shapes and structures in themselves that can be studied and potentially compared for each discursive and social context, looking for specific economic, cultural, religious, political types of communication, embedded or not in institutional settings, through time.

One could even use the approach of a history of ignorance on a very general level, thinking of a history of Humanism, of the Renaissance, of the Reformation, of the European Expansion, later of the Enlightenment as histories of a part of society collectively becoming aware of ignorance(s), which sets off the major processes known under those names. One could identify structures, beginnings and ends of those processes—as we are already used to doing, more by tradition and intuitively, less often by precise definitions of what distinguishes ‘early’ from ‘late’ humanism or Enlightenment on an epistemic level. This would indeed be interesting, but cannot be the question for this volume, and only the author of a monograph carefully re-reading well-known authors and sources in that new direction could work out such a scheme and avoid the temptation and threat of just writing a new narrative of the ‘History of ignorance’, using the relevant terms in his language of description.

But beyond and within those greater constellations, one can focus on distinct problems, on specific ways of coping with ignorance and even on one theme or question dealt with by relevant late medieval and early modern figures. One can focus on attempts and techniques worked out to deal with uncertainty and ignorance and ask if they produced by themselves a typical cycle, starting with a surprise, a ‘revelation’, and a consequent transformation of unconscious nescience into specified ignorance, triggering then an attempt that uses that specification for framing the gathering, collecting, organizing and ordering of ‘knowledge’. And one might pay specific attention to the question of the end of those cycles, to the emergence and decline of institutional settings and even of systems of knowledge management, shaped by well specified ignorance,

linked just to one person organizing such an early modern system or a network of knowledge and information. This is sometimes handled as problems of knowledge loss and as a by-product of institutional breakdowns.<sup>62</sup> Not seldom in early modern administrations, an impetus to reform and react quickly slowed down when the immediate threatening experience vanished. From the point of view of non-knowledge cycles, the question would be, to put it paradoxically, how ignorance becomes ignored and forgotten. Although each such process of reform usually starts with surprise and an awareness of lacking a piece of necessary knowledge for a given problem, for many reasons—e.g. inadequate resources, a change of generation—the initial problem fades from people's attention and the awareness of that ignorance likewise fades away.<sup>63</sup> Other such 'mediate level' forms of (non-)knowledge cycles would be the use of specifically early modern queries and the attempts to find answers to them, for example, directions for scientific voyages or the production of the state's knowledge about itself. Such activities typically created a huge amount of data which had to be ordered and classified according to this form of specification of ignorance. Subsequently all that data could become obsolete as new forms of what is ignored and what should be known become dominant and are realized; a new process starts with each new specification.<sup>64</sup> Claims and polemical attacks—the most 'bloody' European battlefield was the confessional one—could reveal ignorance—on the truth of a theologoumenon's presence in ecclesiastical history, for instance, the early Church's episcopalist structure right from the beginning—on both sides, eventually leading to a century-long process of investigation into new manuscripts, testimonies, and passages in scripture. However, that process could have an end due to external as well as internal reasons—external insofar as the problematic constellation could dissolve, internal insofar as research into possible sources reached an end or that—more unlikely—a question was recognized as being resolved.

62 Burke P., "Reflections on the Information State", in Brendecke A. et al. (ed.), *Information in der Frühen Neuzeit* (Berlin: 2008) 51–64; Zwierlein C., "Diachrone Diskontinuitäten in der frühneuzeitlichen Informationskommunikation und das Problem von Modellen 'kultureller Evolution'", *ibidem* 423–453.

63 Some have tried to write histories of administrative dealing with natural disasters, occurring unforeseeably at indeterminate frequencies, as 'learning processes', but given the incredibly long periods covered and the many restarts 'at zero', the opposite question of how attained expertise became lost again, and how reiterated cycles followed one another, seems more appropriate for what happened in premodern times.

64 Stagl J., *Eine Geschichte der Neugier. Die Kunst des Reisens 1550–1800* (Vienna: 2002) and Collini S. – Vannoni A., *Les instructions scientifiques pour les voyageurs XVII<sup>e</sup>–XIX<sup>e</sup> siècle* (Paris: 2005).

It would be very interesting to find structural similarities across the different epistemes but also specificities applying to one or the other for such processes. Some may have had that cyclical form, some may turn out to have been rather open-ended. What determined the speed, the dynamics, and the directions of those conjunctures and cycles of coping with ignorance, of shifts from ignorance to specified ignorance to (partial) knowledge? Do the dynamics of such movements evolve if one compares late medieval with early modern conditions?<sup>65</sup>

#### 4 Conclusion

For all the dimensions and problems of historicization of ignorance mentioned here, it is clear that no history of ignorance is possible if detached from a history of knowledge. In other words, no observation of the shadow is possible if there is no light somewhere. Therefore the claims of such an approach to open up a completely new field of research must be prudent and modest, as many, if not all objects, structures, and documents discussed in this volume are certainly already known to scholars in principle (certainly not the cases particularly studied). And yet, as the contributions assembled here, in addition to previous studies, show, the focus on the other, dark side of knowledge has long been neglected.<sup>66</sup> If these chapters would merely help future research consciously conceive of knowledge as an object of history that *always* has a dual nature of ignorance/knowledge, this would be a great achievement. If future histories of the early scientific academic movement, of knowledge processing in administrations, of information collection, transmission and news commu-

65 For such an attempt cf. Zwierlein C., *Imperial Unknowns. The French and British in the Mediterranean, 1650–1750* (Cambridge, Cambridge University Press: 2016).

66 Proctor R. N. – Schiebinger L. (eds.), *Agnotology: The Making and Unmaking of Ignorance* (Stanford: 2008) mostly concentrates on the specific form of wilfully suppressed knowledge or negative knowledge, close to censorship and taboos. Other contributions are situated nearly exclusively within the field of literature studies and philosophy: Adler H. – Godel R. (eds.), *Formen des Nichtwissens der Aufklärung* (Munich: 2010); Schäffner W., “Nicht-Wissen um 1800. Buchführung und Statistik”, in Vogl J. (ed.), *Poetologen des Wissens um 1800* (Munich: 1999) 123–144; Füger W., “Das Nichtwissen des Erzählers in Fieldings Joseph Andrews: Bausteine zu einer Theorie negierten Wissens in der Fiktion”, *Poetica* 10 (1978) 188–216; Spoerhase C. et al. (eds.), *Unsicheres Wissen. Skeptizismus und Wahrscheinlichkeit, 1550–1850* (Berlin et al.: 2009); Geisenhanslüke A. – Rott H. (eds.), *Ignoranz: Nichtwissen, Vergessen und Missverstehen in Prozessen kultureller Transformationen* (Bielefeld: 2008).

nication and all the other topics touched upon here, would take unconscious forms of ignorance into account, and consider the precise historical forms of how ignorance was specified by individuals and corporative bodies, scholarship would reap great benefit, because the far more common narrative is that of knowledge growth, of knowledge revolutions and explosions thanks to better and more and more powerful administrations, and by more powerful media such as the printing press. The reader might try him- or herself to re-read major standard accounts and even works of great depth in these fields looking for an explicit treatment of how unknowns were ignored by historical actors, looking for how much attention is paid to that other side of knowledge; usually these are just isolated remarks.

This introduction has tried to generalize themes and ideas present in the contributions of this volume, hopefully showing how they touch upon many problems of any history of ignorance. These points are so general that they concern many contributions at the same time (the dimensions of space, time, the cycles etc. naturally recur in many of them). The volume does not follow the structure of this introduction, but is organized by way of a more traditional clustering of common dominant themes and a chronological order within those groups. In so doing it becomes even clearer that every enterprise has its limits and selectiveness, as many possible themes, issues and authors are not present and cited—but how could it be otherwise, for ignorance is always more extensive than knowledge.

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