philosophical inquiries
www.philinq.it

philinq

philosophical inquiries

X, 2
2022

Edizioni ETS

Essays published on “Philosophical Inquiries” are double-blind peer-reviewed.

Please visit www.philinq.it for submissions and guidelines.

six-monthly journal / periodico semestrale
Subscription (paper, individual): Italy € 50,00, Abroad € 80,00
Subscription (paper, institution): Italy € 60,00, Abroad € 100,00

Subscription fee payable via Bank transfer to
Edizioni ETS
Cassa di Risparmio di Firenze, Pisa
IBAN IT 97 X 06160 14000 013958150114
BIC/SWIFT CRFIIT3F
reason: abbonamento “Philosophical Inquiries”

Registrazione presso il Tribunale di Pisa n. 1/13

Direttore responsabile: Alessandra Borghini

EDIZIONI ETS
Palazzo Roncioni - Lungarno Mediceo, 16, I-56127 Pisa
info@edizioniets.com
www.edizioniets.com

Distribuzione
Messaggerie Libri SPA
Sede legale: via G. Verdi 8 - 20090 Assago (MI)

Promozione
PDE PROMOZIONE SRL
via Zago 2/2 - 40128 Bologna

ISBN 978-884676421-8
ISSN 2281-8618

Table of Contents

Essays

Cristina Nencha
Aristotelian essentialism in David Lewis's theory 9

Matilde Liberti
Virtue and Continence: Defending their Cognitive Difference 39

Giulia Lasagni
On What Makes a Social Group a Group Agent 59

Focus

G. Mori
Introduction: Non-demonstrative proofs in early modern Europe 85

J. Franklin
Late scholastic probable arguments and their contrast with rhetorical and demonstrative arguments 99

B.J. Shapiro
The problem of certainty and the changing status of probable proofs 117

F. Goyet
A brief history of the French verb convaincre 139

G. Mori
Melchor Cano and the conundrum of historical scholarship: Probability and criticism in the sixteenth century 159

ISSN (print) 2281-8618-ETS

S. Tutino
The Baby Jesus in a drop of blood: Evidence, credibility, and truth in post-Reformation Catholicism 179

R. Schuessler
Probable Interplay: Reactions to Epicureanism and probabilism in the seventeenth century 197

A. Artosi, G. Sartor
Betting and presuming: From God's existence to morality and law 219

Past Present

Marco Piazza, Sofia Sandreschi de Robertis
Victor Egger: habit, repetition, and the unconscious 241

Victor Egger
The birth of habits 255

Essays

Aristotelian essentialism in David Lewis's theory

Cristina Nencha

Abstract: David Lewis is usually thought to reject what Quine called 'Aristotelian essentialism'. In this paper, I will define Aristotelian essentialism and locate it in the context of the criticism that Quine made of quantified modal logic. Indeed, according to Quine, Aristotelian essentialism would be one of the consequences of accepting quantified modal logic. Then, I will explain Lewis's stance in the Quinean debate against quantified modal logic. Finally, I will deal with the question as to whether Lewis accepts or rejects Aristotelian essentialism. I think there are different plausible interpretations of the essentialist thesis, and I will distinguish between three such interpretations. This distinction between different interpretations of essentialism is both interesting *per se* and helpful in understanding the senses in which Lewis is or is not an antiessentialist. I will say, in fact, that while it is true that Lewis rejects Aristotelian essentialism under the first two understandings of the essentialist thesis, he endorses such a thesis according to a third understanding. I will then take this to show that there is a sense in which Aristotelian essentialism survives in Lewis's metaphysical theory.

1. *Introduction*

Let us take essentialism to be the doctrine that at least some non-trivial property is determined to be essential to some individuals, where trivial properties are properties such as being either *P* or non-*P*, for any property *P*.[1] According to this characterization, anyone who believes that no non-trivial property is determined to be essential to any individual is regarded as an antiessentialist.

Given such a definition, commitment to essentialism simply consists in claiming, without further explanation or characterization, that some non-trivial properties are determined to be essential to some individuals. Nothing has been said about what is required for a property to be determined as essential.

[1] In the example, the triviality of the property of being *P* or non-*P* is given by the fact that this property belongs to all things. (For attempts to establish which other properties count as trivially essential, see for instance Marcus 1967, and Della Rocca 1996).

philinq X, 2-2022, pp. 9-38 Submitted: 15 May 2021
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.369 Accepted: 30 November 2021

Let us call this conception of essentialism "metaphysically neutral essentialism".[2]

There is a further requirement for a stronger, metaphysically more robust conception of essentialism. This further condition is generally attributed to W. V. O. Quine (1953a; 1953b). Given an individual *a* and an attribute *P*, it is a matter independent of how *a* is represented (namely, conceived or described) whether or not *P* is determined to be essential to *a*. Let us call this stronger conception of essentialism 'Aristotelian essentialism' (hereafter AE), as Quine calls it.[3] There is thus another way to be antiessentialist, namely, to deny that it is independent of how individuals are represented which (non-trivial) properties are determined to be essential to those individuals.

David Lewis is said to accept metaphysically neutral essentialism. However, he is regarded as an antiessentialist when people have AE in mind. The reason for this is that Lewis's account of what it is for a property to be determined as essential is said to rely on how individuals are represented.

In this paper, I will firstly explain AE and contextualize it within Quine's criticism of quantified modal logic (QML) (Sections 3 and 4). Indeed, according to Quine, AE would be one of the consequences of accepting QML (Section 4.1). Afterwards, I will set out Lewis's position in the Quinean debate against QML (Section 5). Then, I will deal with the question as to whether Lewis accepts or rejects AE (Section 6). I shall argue that we should distinguish between three different understandings of AE. While Lewis does reject AE, under the first two readings of AE (Sections 6.1, 6.2), I will claim that he ought to be regarded as accepting AE, according to the third understanding of AE (Section 6.3). I will then take this to show that there is a sense in which AE survives in Lewis's metaphysical theory.

2. *A preliminary clarification*

If one believes in the semantic inconstancy of essentialist claims, as we will see Lewis does, then it would be misleading to talk about "essential properties". Instead, it seems safe to talk about properties whose instantiation by an indi-

[2] Throughout this work I will use 'lazy' talk about properties and attributes. That is, my metaphysically neutral essentialism does not intend to rule out the nominalist. Indeed, in the following, I will say that David Lewis accepts such a thesis, even though he is a class nominalist: he identifies properties with classes of particulars. Therefore, I do not think that the metaphysically neutral position on essentialism requires the commitment to properties.

[3] In Section 6.3, I will claim that Lewis ought to be seen as accepting AE, under one of the readings of AE I will discuss. However, one must bear in mind from the outset that there is a crucial difference between Lewis and the Aristotelians: as we will see, Lewis does not accept any essentialist primitives in his metaphysics. So, if one believes that AE presupposes fundamental modalities in the metaphysics, then clearly Lewis rejects AE.

vidual might be required to account for the truth in a context of an essentialist claim about that individual.[4] However, if one rejects inconstancy, one might want to call those properties "essential properties". In order to align Lewis's view about essentialism with other views, I will use expressions like "properties that are determined to be essential", or "properties that count as essential", instead of "essential properties". When done differently, it will be only for the sake of brevity.

3. *Quinean skepticism about quantified modal logic*

If we are interested in essentialism, we are concerned with *de re* modality.[5] If we are concerned with *de re* modality, we are interested in quantified modal logic (QML). QML is the combination of quantifiers with modal operators. Not all such combinations make for *de re* modality. *De re* modality comes when a modal operator is allowed to apply to an open sentence in which variables occur bound by a quantifier whose scope includes the modal operator, as in (1):

(1) $\exists x \Box Hx$

When the modal operator applies to a closed sentence, as in (2),

(2) $\Box \exists x Hx$

the interaction of modal operators with quantifiers gives rise only to *de dicto* modality.

According to Quine (1953b, 156-157), there are three different grades of modal involvement. The first or least degree occurs when modality is expressed by a semantical predicate, which attaches to names of sentences. In the second and third grades, modality belongs to the object-language: the second grade arises with *de dicto* modality and the third grade, which is the gravest one, occurs with *de re* modality. Famously, Quine was a consistent critic of QML, es-

[4] I believe that this point can be clarified by referring to a case that is safely distant from all modal matters. I would imagine that everyone believes in the semantic inconstancy of claims of the form "*a* is close to *b*". While, we can happily talk of the distance properties (relations) that make closeness claims true in some context, and be as realistic as we like about those, we should resist talking of 'closeness properties'. Indeed, talk of 'closeness properties' invites confusion between something that merits semantic characterization (closeness claims can be said to be context-dependent: that is a semantic characterization) and something that does not (any non-semantic distance property that might be picked out by a truth-condition).

[5] For Quine, questions of essentialism are at one with questions of necessity *de re*. This is in common with many philosophers (like Kripke and Lewis), but not with most philosophers after Kit Fine (1994) who would distinguish the two. In the present work, I will not distinguish between the two.

pecially of QML when it gives rise to *de re* modality. In other words, he found the third grade of modal involvement objectionable (see especially Quine 1953a; 1953b).[6]

Before trying to understand the reasons why Quine was skeptical about QML, an important point has to be made: Quine has no problem at all with the fact that in our ordinary language we use *de re* modal sentences. He only thinks that whatever is non-canonical (and, as we will see, *de re* modal discourse is non-canonical) is free of ontological commitments. Quine's aim is indeed to build a system of canonical representations with the property that "*all traits of reality worthy of the name can be set down in an idiom of this austere form if in any idiom*" (Quine 1960, 209). What philosophers have to do, for Quine, is adapt our best available theory of the world in a canonical language, and this canonical language has to be taken as making a genuine claim about what there is in the world, that is, it implies ontological commitments to what exists. Therefore, if QML is not required for describing the most general traits of reality, then it has no place in Quinean canonical notation.

We might thus paraphrase Quine's general concern about QML in the following way: should QML and, so, *de re* modal predications have a place in our canonical notation just as they have a place in ordinary language? Since Quinean canonical notation is supposed to be given in a first-order logic, and hence it is extensional, Quine's concern about QML amounts to the question: is our canonical language a first-order extensional logic, or should it be extended in order to also accept QML?

The first thing to be said, indeed, is that modal contexts are non-extensional contexts. A context is extensional if and only if (hereafter iff) given two formulas or terms ϕ and ψ, such that ϕ contains ψ, and given ψ^* that has the same extension of ψ, if all the occurrences of ψ in ϕ are substituted with ψ^*, ϕ does not change its extension.

Since, as we saw, it is desirable for the canonical language to be extensional, if a region of discourse is not extensional, then, according to Quine, we have reason to doubt its claims to describe the structure of reality. Thus, Quine is very reluctant to accept a non-extensional extension of the canonical notation.

[6] In the following, I will discuss the Quinean skeptical attitude toward QML. There are several attempts in the literature that try to interpret Quine's criticism of QML, and they differ over many points. I will indicate (following Divers 2017b), for instance, one point over which interpretations of Quine's skepticism tend to diverge. However, it is not my aim here either to offer a detailed explanation of Quine's skepticism toward QML, or to discuss all the different understandings of it. I only aim to give an overall presentation of the Quinean criticism, in order to subsequently discuss Lewis's stance toward QML and, mainly, toward AE, on the understanding that there might be many authors who would interpret Quine's skepticism in a quite different manner.

At any rate, he certainly does not want to accept any referential opacity in the canonical notation.

Referential opacity is a particular kind of failure of extensionality, which regards singular terms. A context is referentially opaque if, by substituting different singular terms with the same extension, that is, different terms that refer to the same object, the extension of the whole sentence in which the substitution occurs, namely its truth-value, can be altered. By contrast, in a referentially transparent context if, for instance, something true is said about an object, nothing will change if we refer to that very same object with a different name. In a referentially opaque context, thus, singular terms do not occur referentially.

According to Quine, modal contexts are also opaque, and opacity prefigures the violation of the basic logic of identity. The well-known example he employs in order to illustrate the opacity of modal contexts is the following. From the true identity statement

(3) 9 = the number of planets,

and from the true sentence

(4) 9 is necessarily greater than 5,

we obtain the sentence

(5) The number of planets is necessarily greater than 5,

which is false, despite being obtained by (4) for substitution of two coreferential singular terms – by virtue of (3). Opacity challenges the basic logic of identity, grounded in what is generally called 'the principle of the indiscernibility of identicals', the schema of which is given by (II): for any open formula ϕ,

(II) $\forall x\, \forall y\, (x = y \longrightarrow \phi x \leftrightarrow \phi y)$

This principle, Quine (1953b, 172-173) claims, cannot be challenged. That is, the logic of the canonical notation must validate (II). Therefore, if modality gives rise to opaque contexts, it means that there is no place for modality in the canonical notation. After all, canonical notation is supposed to indicate to us the structure of reality. Thus, singular terms in sentences of canonical notation are supposed to ontologically commit us to the existence of the objects they refer to. Hence, from Quine's perspective, we cannot admit in our canonical notation referentially opaque contexts in which terms happen not to refer to their extensions.

However, according to Quine, "[u]*ltimately the objects referred to in a theory are to be accounted not as the things named by the singular terms, but as the values* *of the variables of quantification*" (1953a, 144-145). For Quine, singular terms are eliminable by paraphrase. Thus, if opacity is a feature of modal contexts, then it must show itself in connection with variables of quantification as well as in connection with singular terms (see Quine 1953b, 172).

The criterion for referential opacity with regard to quantification is the following: "*a referentially opaque context is one that cannot properly be* quantified into *(with quantifier outside the context and variable inside)*" (Quine 1953b, 172). We can quantify into a context only if the terms referentially occur in that context, that is, only if they refer in that context to the objects to which they usually refer. Quotations are the opaque context *par excellence*. Trying to infer:

(6) ∃x "x>5"

from

(7) "9>5"

does not make any sense. The existential quantifier in (6) is followed by no occurrence of its variable; that is, the "x" in "x>5" in (6) cannot be bound by the quantifier. The reason for this is that "9" in (7) does not refer to an object, that is to the number 9. Therefore, we are not allowed to apply an existential generalization to (7). Thus, it is not possible to quantify into a quotation context, because the terms that occur in that context do not refer to their objects. So, quotation contexts are opaque (see Quine 1953b, 158-159).

In the same way, Quine (1953a, 146-150; 1953b, 170-171) claims, it is not possible to quantify into modal contexts. So, from (4)

(4) 9 is necessarily greater than 5,

we cannot infer

(8) ∃x (x is necessarily greater than 5).

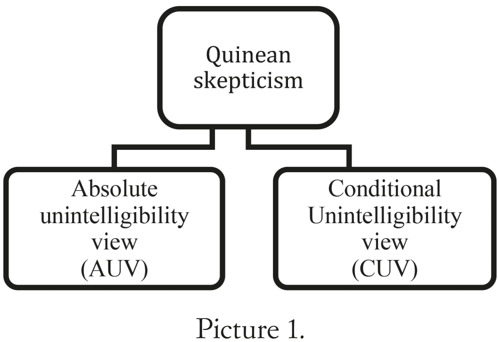
Indeed, we might infer (8) from (4), only if we considered the occurrence of '9' in (4) as referring to the object 9. However, in (4), 'to be necessarily greater than 5' is not a trait of the number 9, but depends on the manner of referring to it: it turns out true if we refer to 9 by "9", but false if we refer to 9 by "the number of planets" – as (5) shows. Thus, putting "x" in (8) in place of "9" in (4) does not make more sense than putting "x" in (6) for "9" in (7). In both contexts, "9" does not occur referentially, so we cannot quantify in such contexts: the existential quantifier cannot bind variables whose values are not ordinary entities. Therefore, since it is not possible to quantify into modal contexts, they are opaque contexts.

Accordingly, this is the source of the Quinean skepticism about QML: modality creates referentially opaque contexts; referential opacity is a symptom of the failure of the logic of identity, and such a failure would call for a devastating revision of the core of the non-modal part of the logic. Therefore, referential opacity is something that cannot be tolerated in the canonical notation. In other words, the canonical language should not be extended in order to also accept QML, which creates referentially opaque contexts.

4. *Two interpretations of Quinean skepticism about QML*

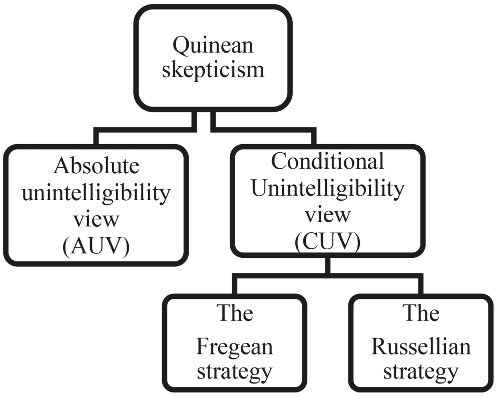
John Divers (2017b) points to a misunderstanding about the nature of Quine's complaint against QML. In the following Sections, I shall explain and explore such a misunderstanding in order to discuss, afterwards, Lewis's stance towards QML.

There have been at least two interpretative approaches to Quine's skepticism regarding QML. According to what one can take to be the most common interpretation of the Quinean skepticism, by virtue of the reasons explained in Section 3, Quine finds QML absolutely unintelligible or meaningless. I will call this interpretation "the absolute unintelligibility view" (AUV). A less common way of understanding Quine's position is that QML, according to him, is not absolutely unintelligible, but rather, it is unintelligible *if* modal contexts are treated as opaque. Let us name this interpretative perspective "the conditional unintelligibility view" (CUV). The CUV emphasizes that Quine did not believe QML to be absolutely unintelligible. Rather, he believed that it made no sense to quantify into modal contexts, as long as modal contexts are treated as opaque contexts. Therefore, the modal logician, according to this interpretation, *can* quantify into modal contexts, but she has to say that modal contexts are not opaque contexts after all.



Picture 1.

Quine himself illustrates two different ways that have been explored for making modal contexts referentially transparent. Clearly, if the strategies for showing modal contexts to be transparent are regarded as attempts to reply to Quine, then these strategies can be taken as supporting the CUV. Thus, the two following strategies might be seen as attempts to show that QML is intelligible, given that modal contexts are not opaque.



Picture 2.

The first strategy aiming to show that modal contexts are not opaque was suggested by Church and Carnap. We can call their strategy 'the Fregean strategy', by virtue of the fact that it employs the Fregean solution to deal with alleged opaque contexts. According to this strategy, modal contexts are not opaque, because quantification does not vary over extensional entities whose names fail to be interchangeable in modal contexts. Rather, quantification varies over a domain of special entities, that is, intensional entities. So, the domain of quantification is given by those entities that can only be selected by analytically equivalent conditions. In other words, names of intensional entities are supposed to satisfy the condition that any two of them naming the same intension would be interchangeable in modal contexts. The domain of quantification is thus given by only those objects whose names are interchangeable in modal contexts *salva veritate*. Following this strategy, since according to a given logic "*to be is to be the value of a variable*" (Quine 1948, 34), the logician is led "*to hold that there are no concrete objects (men, planets, etc.), but rather that there are only, corresponding to each supposed concrete object, a multitude of distinguishable entities (perhaps 'individual concepts,' in Church's phrase)*" (Quine 1947, 47).

According to the Fregean strategy, the object 9, for instance, is ruled out by the domain of the discourse, since it can be named by at least two names ('9' and "the number of planets") which are not interchangeable in modal contexts. In place of 9, we have several intensional entities that broadly correspond to Fregean senses or Carnapian individual concepts: among these entities there are the-9-concept and the-number-of-planets-concept. Therefore, according to the Fregean strategy, necessity does not apply to objects like the number 9 independently of how they are specified.

A modal logic that confines its domain of discourse to intensions is supposed, thus, to be free of referentially opaque contexts. Indeed, the fact that the sentences (4) and (5) above have different truth-values no longer represents a violation of the principle of substitutivity of coreferential names. Indeed, the inference from (4) to (5) does not rely on the substitution of two names which refer to the same intension (see Quine 1953a, 150-152).

However, this strategy faces obvious problems from Quine's perspective. For instance, if our domain of discourse consists of intensional entities, then two names are interchangeable *salva veritate* only if they are terms of an analytically true statement of identity, that is, only if they are synonymous. But, notoriously, Quine (see, for instance, Quine 1951) was a great opponent of concepts such as analyticity and synonymy.

But what it is more important here is that, even though such problematic intensional entities were admitted, Quine claims, "*the expedient of limiting the values of variables to them is after all a mistaken one*" (1953a, 152). The reason is that, even in a domain of intensional entities, Quine claims, there can be examples that violate the principle of substitutivity. Even though the universe of discourse is given by intensional entities, we are not able to satisfy the requirement that "*any two conditions uniquely determining x are analytically equivalent*" (1953a, 152). Indeed, Quine (1953a, 152-153) suggests, take "A" as a non-analytic truth and "*F*" as a condition that uniquely determines x. Then, consider the condition "$A \wedge Fx$" that uniquely determines x, but it is not analytically equivalent to "Fx". Therefore, even though x is an intensional object, the principle of substitutivity fails. This means that the Fregean strategy, according to Quine, is not successful in making QML intelligible, because it does not make modal contexts free of their supposed opacity.

The second strategy that has been followed in order to guarantee the referential transparency of modal contexts and, thus, the possibility of quantifying into them, is the strategy proposed by Smullyan (1948; Quine 1953a, 154-155; 1953b, 171-172). Let us call this strategy "the Russellian strategy", by virtue of the fact that Smullyan invokes the Russellian theory of definite descriptions and his distinction of scopes of descriptions.

According to this strategy, we can maintain a non-objectionable domain of extensional entities. The crucial point of the Russellian strategy is that the conclusion (5) of the argument supposed to show the opacity of modal contexts is ambiguous. Indeed, recall (5)

(5) The number of planets is necessarily greater than 5.

Well, (5) might be read either as the false *de dicto* statement (9):

(9) $\Box$ ($\exists$x (The number of planets x $\wedge$ x > 5)),

or as the true *de re* statement (10):

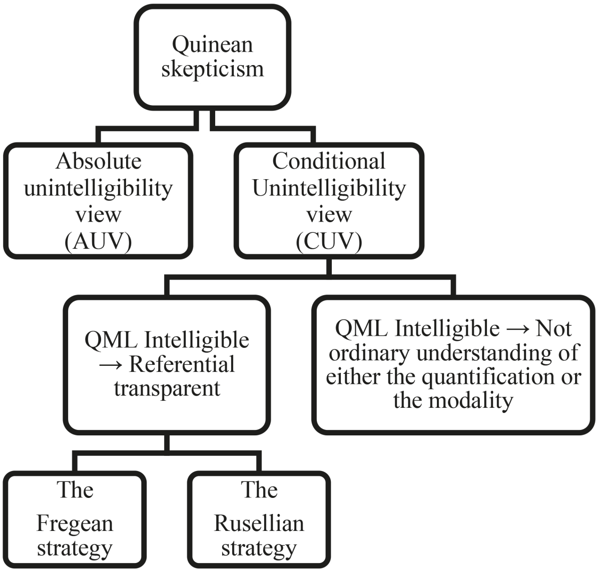
(10) $\exists$x (the number of planets x $\wedge$ $\Box$ (x > 5)).

If we recognize this ambiguity and privilege the *de re* reading, then it is no longer the case that, by substitution of two coreferential names ("9" and "the number of planets"), we go from a true statement (4) to a false one. Therefore, modal contexts can be treated as referentially transparent contexts after all.

Quine admits (1953a, 154) that the Russellian strategy, contrary to the Fregean strategy, solves the problem of the opacity of modal contexts and, so, makes QML intelligible. However, as we will see in detail in Section 4.1, Quine thinks that following the Russellian strategy comes with some price to be paid, namely, with the acceptance of what he calls "Aristotelian Essentialism" (AE).

Before dealing with how AE is supposed to stem from the Russellian strategy, I would like to point out that there is another way to interpret the Quinean skepticism, which is compatible with CUV. From Quine (1953a, 150), we learn that the combination "$\exists$x$\Box$" is unintelligible when the quantification and the modality are understood in the usual way. Divers, in his explanation of the misunderstanding about Quine's complaint against QML, underlines this interpretation: "*What is not obviously intelligible is the characteristic construction when we bring to its understanding the conceptions of quantification and modality 'as ordinarily understood'.*" (2017b, 197).

Therefore, it seems that, in opposition to AUV, there are two CUVs.



Picture 3.

According to the first CUV, as we saw, QML is intelligible only if modal contexts are treated as referentially transparent. According to the second CUV, QML is intelligible only if one of the quantification and the modality is not ordinarily interpreted.

Now, for Quine (1953a, 143), as we have seen, the standard understanding of quantification is that according to which the values of our variables are ordinary entities. On the other hand, according to him, the ordinary interpretation of modality understands modality as strict modality, that is, as analytic modality. This means that the second CUV says that QML is intelligible only if either the quantification is not interpreted as varying over ordinary entities or the modality is not read as analytic modality.

However, there is only an apparent bifurcation between the two CUVs: they are strictly connected. It can be easily seen, indeed, that both the attempts to guarantee the referential transparency of modal contexts (the Fregean and the Russellian strategies) end up with an extraordinary reading of at least one of the two components. In fact, they mirror two different ways of resolving the incompatibility of the combination of the ordinary understandings of such elements.

On the one hand, the Fregean strategy, as noted, departs from the ordinary understanding of quantification and proposes an understanding of it as varying over a domain of intensional entities. Divers (2017a) calls this strategy "the language-dependence strategy". Indeed, according to this strategy, the values of our variables are entities whose nature stands in relation to ways of specifying them. And this is perfectly compatible with the ordinary understanding of modality as analytic, that is, as linguistic in character.

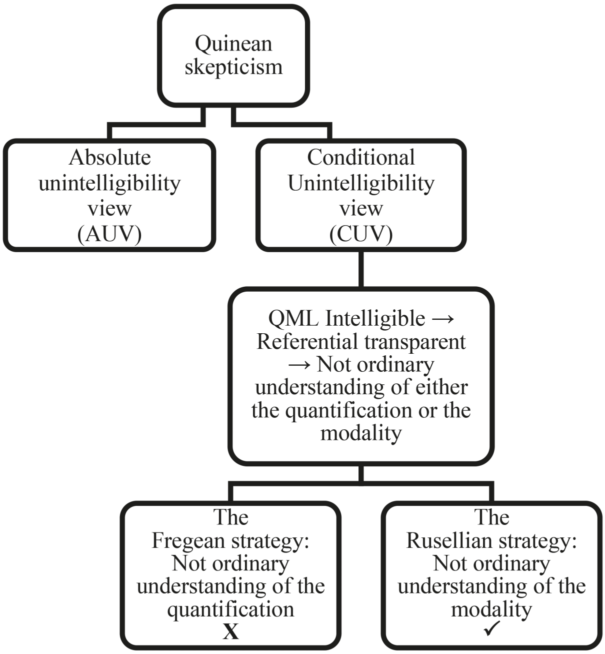
On the other hand, the Russellian strategy, while maintaining the ordinary understanding of quantification, must invoke a different understanding of modality, that is, an understanding of modality that is compatible with the language-independent character of the extensional entities over which the ordinary quantification varies. That is, a language-independent, non-analytic modality: it must invoke metaphysical modality. In fact, if we use quantification over extensional entities in modal contexts, then it no longer makes sense to interpret the modal operators as analytic modalities. Quine writes:

> Essentialism is abruptly at variance with the idea, favored by Carnap, [C.I.] Lewis, and others, of explaining necessity by analyticity. For the appeal to analyticity can pretend to distinguish essential and accidental traits of an object only relative to how the object is specified, not absolutely (1953a, 155).

That is, the idea of properties necessarily had by objects in themselves is "abruptly at variance" with any interpretation of necessity which understands it as linguistic in character, rather than grounded in the nature of things. Thus, the modality that can make sense of such an idea is a modality that applies to objects independently of how they are represented, that is, the metaphysical modality. In other words, analytic necessity has, by definition, a linguistic character, that is, it is a kind of language-dependent necessity, so that it cannot make sense to apply this kind of necessity to the objects independently of how they are specified. Thus Divers (2017a) calls the Russellian strategy "the language-independence strategy".

So, the two attempts to achieve referential transparency in modal contexts rely on either an extraordinary reading of quantification (the Fregean strategy) or an extraordinary understanding of modality (the Russellian strategy). Therefore, it seems that an extraordinary reading of one among quantification or modality is a necessary condition for the transparency of modal contexts. Of course, it is not a sufficient condition. Indeed, only the extraordinary reading of modality (namely, the Russellian strategy), according to Quine, allows modal contexts to be referentially transparent.

Therefore, we can see that there is a strict connection between the two CUVs. Indeed, QML is intelligible only if modal contexts are referentially transparent, and modal contexts are referentially transparent only if the ordinary understanding of modality is dropped.



Picture 4.

4.1. Intelligibility at some costs

We have seen that, according to Quine, only the Russellian strategy succeeds in showing the intelligibility of QML. However, as anticipated, following such a strategy is not, for Quine, a free lunch. According to him (Quine 1953a, 155-156; 1953b, 172–174), making modal contexts referentially transparent and, so, making QML intelligible, comes with three prices to be paid. I will focus only on the third price, the most important for my purposes (for the discussion of the first two prices Quine predicted, I refer the reader to Quine 1953a, and Quine 1953b; for the discussion of how Lewis's theory behaves with regard to them, see Divers 2017a).

The third consequence that Quine thinks follows from the approval of QML is the acceptance of "Aristotelian Essentialism" (AE). Quine gives varies definitions of AE. Let us consider two of them:

This is the doctrine that some of the attributes of a thing (quite independently of the language in which the thing is referred to, if at all) may be essential to the thing, and other accidental. E.g., a man [...] is essentially rational and accidentally two-legged and talkative, not merely qua man but qua itself. More formally, what Aristotelian essentialism says is that you can have open sentences – which I shall represent here as 'Fx' and 'Gx' – such that […] (∃x) (nec Fx. Gx. ~ nec Gx) (1953b, 173-174).[7]

Alternatively,

An object, of itself and by whatever name or none, must be seen as having some of its traits necessarily and others contingently, despite the fact that the latter traits follow just as analytically from some ways of specifying the object as the former traits do from other ways of specifying it (1953a, 155).

Why is AE supposed to stem from the Russellian strategy, that is, from the strategy capable, for Quine, of making QML intelligible?

Well, if we are willing to treat modal contexts as referentially transparent contexts, this means that when we say that the property *P* is determined to be essential to an object *a*, if this is true, then *P* will be determined to be essential to *a* independently of how we refer to *a*. In other words, *a*, in itself, has the property *P* essentially. Indeed, one might change the name she uses to refer to, say, the number 9: she can choose "9" or "the number of planets". However, this does not matter, because the property of being greater than 5 will be determined as essential to the object, independently of how it is specified.

Moreover, as we already saw, if we use quantification over extensional entities in modal contexts, then it no longer makes sense to interpret the modal operators as analytic modalities. And it was said that the Russellian strategy invokes a metaphysical understanding of the modality.

Therefore, here we have AE: an ordinary object is claimed to have in itself, regardless of how it is represented, a property as a matter of necessity, and the necessity at stake is grounded on the nature of that object, rather than on our ways of referring to it.

However, AE is an unacceptable doctrine for Quine, for the idea of essences, at least on his account, has no serious scientific use. AE is, from Quine's perspective, an unacceptable doctrine: his view of reality does not include the notion of an object having in itself some properties essentially and others accidentally. In Hylton's words, according to Quine, "[…] *modern science, unlike Aristotelian science, simply has no place for the notion*" (Hylton 2007, 354). Therefore, according to this interpretation, Quine's conclusion is that since the canonical notation implies ontological commitments to what exists according to our best available theory of the world, and since there is no scientific use of a notion of necessity that inheres in things and not in language, then the canonical notation must not be extended in order to include QML which commits us to AE.

[7] Where "nec" stands for "□".

In the following Sections, in order to study the relationship between Quine's criticisms of QML and AE on the one hand, and David Lewis's stand toward AE on the other, I will privilege the CUV. And, to sum up, according to the interpretation privileged in my reading, Quine believes that the canonical notation must not be extended in order to include QML for the following reasons: (a) referential opacity cannot be tolerated in the canonical language; (b) QML is intelligible only if modal contexts are treated as non-opaque; (c) the price for cleansing QML of referential opacity is, among other things, to accept AE; and (d) AE is, for Quine, an unacceptable doctrine.

The following Section will explore Lewis's stand toward the Quinean skepticism.

5. *Lewis's stand toward Quine's skepticism*

Lewis adopts an alternative interpretation of *de re* modal discourse that does not proceed through QML. We saw that there is no place in the Quinean canonical notation for *de re* modal sentences such as (1):

(1) $\exists x \Box Hx$

(where "*H*" stands for the predicate "being human"). (1) translates in QML the essentialist sentence (11):

(11) Someone is essentially human.

There is no place for (1) in Lewis's fundamental notation either, that is, in counterpart theoretic language. Quine and Lewis thus agree that there is no place for QML and, so, for *de re* modality in their fundamental languages.

However, Lewis builds a reductionist, non-canonical defense of *de re* modal predication. I think there are three important aspects in which the Lewisian reductionist, non-canonical defense of *de re* modality consists.

First of all, Lewis (1968) does not provide a formalization of modal discourse by means of modal operators. That is, he does not provide a non-extensional logic, as happens in the context of those theories that accept QML. Rather, Lewis offers an extensionalist interpretation of *de re* modal discourse given in a first-order logic with identity and, in so doing, he provides an extensional logic for the modal discourse. Given his metaphysical commitments to possible worlds and counterparts (parts of worlds), he reduces modal operators to quantifiers which range over such worlds and counterparts. Modal operators are thus eliminated from the Lewisian fundamental language. Lewis, hence, offers translations of modal formulas in an extensional (non-modal) fundamental language. (11) is thus translated in counterpart theory (hereafter CT) by (12):

(12) $\exists x\ (Ix@ \land \forall y \forall z\ (Wy \land Izy \land Czx \rightarrow Hz))$

(where "*I*" stands for "to be in a possible world", "@" for "the actual world", "*W*" for "world" and "*C*" for "to be a counterpart"). (12), informally, says that there is an actual *x* such that every counterpart of it, in any world, is human.

The translation of (11) into CT is thus given in non-modal terms. Indeed, neither "counterpart" nor "world" nor "actual" are defined in modal terms. Thus, semantically speaking, there is no primitive modal predication, such as 'being essentially human', that is attributed to something actual. Therefore, the translation of (11) into CT does not require any semantically primitive modality. In other words, Lewis opens the possibility for a defense of *de re* modal predication without locating it in the fundamental language, namely, without making it a feature of the canonical notation of CT (see Divers 2017a). Accordingly, there is a place in CT for sentences that report the conditions under which *de re* modal sentences are true, even though modality is not a primitive feature of the canonical notation: CT allows for the formulation and the meaningfulness of essentialist sentences, by admitting their translations in non-modal terms.

Secondly, *de re* modal sentences are made true by non-modal facts. That is, in Lewis's view, the truth of an essentialist sentence does not commit one to fundamental modality in the realm of reality. Indeed, there is no primitive modality in Lewisian fundamental reality. In other words, metaphysically speaking, the truth of (11) does not require the postulation of any primitive modal property, such as "being essentially human", that is attributed to something actual. However, the metaphysics must be accommodated in order to provide for truth-conditions of essentialist sentences to be satisfied, without appealing to alleged fundamental modal features that objects have in themselves. In order to guarantee the truth of such sentences, other ontological commitments are required: the realm of being must be expanded, in Lewis's view, by adding a plurality of worlds and individuals (see Lewis 1986; Divers 2017a). So, for Lewis, the fact that someone is essentially human is reduced to the non-modal fact that someone shares the property of being human with all its relevant counterparts. Accordingly, there is no primitive modality in the nature that makes essentialist sentences true.

Therefore, the fact that there is no primitive modality in the Lewisian fundamental language mirrors the fact that there is no primitive modality in the Lewisian fundamental reality either. From Lewis's perspective, thus, there are no irreducible *de re* modalities either in the fundamental language of CT or in the fundamental reality.

Finally, it is important to note that, in order to be a "defense" of *de re* modal sentences, Lewis's theory must guarantee the truth of such sentences. That is, Lewis's theory would not offer a defense of *de re* modal discourse, if *de re* modal sentences were always interpreted as false. Therefore, we should consider how Lewis's account of semantics fits with his general theory of interpretation. That general theory emphasizes the virtue of charity of truthfulness. According to Lewis, there is a rule of accommodation holding that "*what you say makes itself true, if at all possible, by creating a context that selects the relevant features so as to make it true*" (1986, 251). This is also true in *de re* modal contexts. For instance, the Kripkeans make claims of essentiality of origins (see Kripke 1980). When they make such claims, they speak truly in the context of their own speaking. Indeed, in that context, according to Lewis's general theory of interpretation (1986, 252), we are bound to project backwards the kind of counterparthood that must be selected in order to make their essentialist statements true. Therefore, for Lewis, given a *de re* modal sentence, if at all possible, we should take such a sentence to be true in the context of its utterance. That is, Lewis makes sentences such as (12) (which is the translation of a *de re* modal sentence in CT) come out true, in the context of their utterances.

So, this is how Lewis makes space for a reductionist, non-canonical defense of *de re* modality: in his fundamental language, there are essentialist sentences reduced to non-modal terms which are made true, in the context of their utterance, by non-modal facts.

To resume the terminology I used in the Introduction, Lewis defends what I called "metaphysically neutral essentialism". Indeed, as we have just seen, he provides a defense of *de re* modality: he accepts that there are sentences in CT that report the conditions under which attributions of non-trivial essential properties are true, and such sentences are made true in the contexts of their utterances.

A non-reductionist, canonical defense of *de re* modality would consist in accepting *de re* modal sentences in the canonical language which are made true by modal facts. By contrast, a reductionist, non-canonical defense of *de re* modality, the one Lewis provides, consists in accepting in the canonical language translations in non-modal terms of *de re* modal sentences which are made true by non-modal facts.

Therefore, Lewis accepts metaphysically neutral essentialism, by providing a reductionist, non-canonical defense of *de re* modality.

To sum up, both Quine and Lewis reject a non-reductionist, canonical defense of *de re* modal discourse: they both believe that there is no place in the canonical, non-reducible level for *de re* modal statements and that there are no fundamental essential properties that are attributed to objects in the realm of reality. However, Lewis, but not Quine, makes space for a reducible, non-canonical defense of *de re* modality.

5.1. Opacity

I said that CT is an extensional first-order language. Therefore, since CT is a fully extensional language, and since opacity is a particular kind of failure of extensionality, we might conclude that, in CT, *de re* modal discourse can be translated without incurring opacity. Thus, Lewis seems to take Quine's point. He adopts an extensional (non-modal) first-order logic for his fundamental language and there are no risks of opacity in such a language. This means that there is no need, from Lewis's perspective, for an extraordinary interpretation of either the quantification or the modality in order to solve the alleged opacity.

First of all, the quantification in CT (irrespective of whether it is over worlds or parts of them) can be read as ordinary, that is, as varying over extensional entities.

When it comes to modality, however, the matter is a bit more complicated. In one sense, we should say that there is no need for an extraordinary reading of modality, because modality just disappears from the fundamental language. Nonetheless, in another sense, we might say that the Lewisian canonical language provides translation of modal sentences in which the modality is metaphysical in character. In the non-canonical level, indeed, where modality is not analyzed, there is still a need for an extraordinary understanding of modality that is compatible with the language-independent character of the extensional entities over which the quantification over individuals varies. However, it is difficult to say whether such an appeal to an extraordinary reading of the modality is due to the attempt to solve the opacity that might reappear at the non-canonical level. The problem is that, for opacity to be well-defined, we need a clear criterion for what counts as a singular term in the language. And it is not obvious that there is such a criterion for natural languages. However, even though opacity should appear at the non-canonical level, it would turn out to be entirely superficial, that is, it disappears on analysis.[8]

Thus, it might be said that in the Lewisian fundamental non-opaque language, the modality is analyzed and quantification is understood as ordinary. At the non-canonical level (where, if opacity manifests itself, it is entirely superficial and analyzable), modality is interpreted as metaphysical in character and quantification is still interpreted as ordinary.

6. *The Lewisian stance towards Aristotelian essentialism (AE)*

According to the interpretation I privileged in this paper, Quine predicts that accepting QML in the fundamental notation implies a consequence that, from

[8] I will return to this point in Section 6.1.

his point of view, is unacceptable, that is AE. Thus, on this reading, Quine's target is given by those theories that accept QML *in their fundamental notation*.

Let us assume that Quine is right about the consequence of QML. Lewis is said to reject AE. Let us also assume, for the time being, that it is correct to say that Lewis rejects AE (in the next Sections, this claim will be analyzed). Well, Lewis's solution of defending *de re* modality without accepting it in the fundamental notation makes Lewis's stand not susceptible to Quine's predictions. That is, the Lewisian rejection of AE would not be in contrast to the Quinean prediction, since Quine predicted that a defense of AE would have followed from the acceptance of *de re* modality in the canonical language. And Lewis is not committed to *de re* modality in his canonical language.

At any rate, recall the reasons why AE is supposed to stem from the acceptance of QML in the canonical language, according to Quine. The only way to make sense of QML in the canonical language is to treat modal contexts as non-opaque contexts. If such contexts are really referentially transparent, then when it is claimed that a property P is determined to be essential to an object a, if this is true, then P will be determined to be essential to a independently of how we refer to a. Moreover, the referential transparency of modal contexts calls for an extraordinary interpretation of modality, given an ordinary understanding of quantification. That is, modality is understood as metaphysical, non-linguistic in character. Thus, we obtain AE: an ordinary object is claimed to have in itself, regardless of how it is represented, a property necessarily, and the necessity at stake is grounded on the nature of that object, rather than on our ways of referring to it.

Now, CT, as we saw, is fully extensional and, being extensional, is non-opaque. However, Lewis is said not to accept AE. Two requirements have to be met in order to be committed to AE:

– On the one hand, it is required that the modality at stake is metaphysical in character;
– On the other hand, the properties determined to be essential to individuals are required to be independent of how those individuals are represented.

The reason why Lewis is believed to reject AE has nothing to do with the first requirement. Indeed, it was said that, at the canonical level, modality just disappears, while at a reducible level modality should be understood as metaphysical in character. Rather, Lewis is said to reject AE because he seems unable to meet the second requirement. That is, it is said that, for Lewis, individuals have *de re* modal properties according to how they are represented.[9]

[9] To be precise, and as we will see later in this paper, on Lewis's view, which properties are determined to be essential is a matter of counterparthood given in terms of similarity and, as such, is a contextual matter, which is also determined, to some extent, by the way individuals are represented.

Therefore, Lewis is generally claimed to reject AE: it is said that, even though Lewis accepts metaphysically neutral essentialism, by providing a reductive, non-canonical defense of *de re* modality, he rejects AE.

In the following Sections, I shall claim that AE, as it has been described so far, seems to conflate three different theses that hold at three different levels: semantics; metasemantics; and metaphysics. I believe that, in order to understand Lewis's stance toward AE, we need to maintain a separation between these three different understandings of AE.

6.1. Lewis and the semantic understanding of AE

Broadly speaking, semantics is about the semantic values of expressions. Semantically speaking, AE might thus be intended as the thesis that the truth-values of *de re* modal sentences must be context-independent. That is, AE might be interpreted as a thesis about the semantic constancy of the truth-values of essentialist sentences.

As I mentioned, Lewis rejects such a thesis: according to him, the truth-values of *de re* modal statements might change according to different contexts. Let us consider sentence type (13):

(13) *a* is essentially human,

for any individual *a*. According to CT, (13) is true iff every relevant counterpart of *a* is human. The general form of the truth-conditions for an essentialist sentence type is thus incomplete: it needs to be completed with the input of a relevant counterpart relation. A counterpart relation between two individuals is any relation of similarity between them; counterparts of *a* are simply those things that are similar in any respect and to any degree to *a*. There is then the further question of which counterparts of *a* are relevant; *b* is a relevant counterpart of *a* iff *b* is similar enough to *a* under relevant respects.

It is a matter of context which respects of similarity are salient and which grades of similarity are enough under such respects. The relevant counterparts of *a* are therefore determined to a large extent by the contexts in which (13) is produced and evaluated. According to Lewis (1979; 1980), the interests and intentions of a speaker and an audience, background information, the standards of precision, the presuppositions, spatiotemporal location of utterances, norms of charitable interpretation, and objective salience are among the contextual factors that help to select the relevant counterparts of individuals. What helps to select the counterparts of individuals that are relevant in a particular context, among other factors, are thus also the ways in which those individuals are conceived or described.

CT thus gives complete truth-conditions only for specific tokens of (13). In other words, in order to have truth-values for essentialist claims about *a*, we need to know which of *a*'s counterparts are relevant, and this is determined for the greater part by the contexts in which the essentialist claims are uttered. Accordingly, for Lewis, different tokens of the same sentence type about *a* might be produced and evaluated in different contexts and, thus, evoke different relevant counterparts of *a* and have, hence, different truth-values.

Once the reasons why Lewis accepts that there are variations in truth-values across different tokens of the same essentialist sentence type, it is easy to see that he also accepts variations in truth-values across referentially equivalent essentialist sentences: truth-values might be also sensitive to substitution of coreferential expressions. Indeed, it seems evident that different coreferential expressions might evoke different relevant counterparts as well.[10]

Accordingly, if AE is interpreted as the semantic thesis that the truth-values of sentences that attribute essential properties to individuals are context-independent, in one or both of the above senses, then Lewis rejects AE. Therefore, the Lewisian acceptance of the inconstancy of *de re* modal statements might be a reason for thinking that Lewis rejects AE.[11]

6.2. Lewis and the metasemantic understanding of AE

AE might be interpreted as compatible with the semantic inconstancy of *de re* modal sentences. Indeed, AE might be understood as the following metasemantic thesis, where metasemantics, broadly, concerns the nature of the facts involved in the selection of the relevant semantic values: granting the semantic inconstancy of a *de re* modal statement A, and given a semantic explanation of such an inconstancy, the facts that are involved in the selection of the semantic values which are relevant to the truth of A in a context are independent of how we represent individuals.

[10] In Section 5.1, I said that, being an extensional language, CT does not manifest referential opacity. Now, I am saying that, by substitution of two coreferential names, the truth-value of the essentialist sentence in which the substitution occurs might change. Note, however, that the reason why the substitution of coreferential names in a sentence can alter the truth-value of that sentence, in Lewis's view, is that different names can evoke different interpretations of the predicate for counterpart relation that emerges when the sentence is analyzed in counterpart theoretic terms. Therefore, if we hold fixed the interpretation of the predicate for the counterpart relation, then the substitution of two coreferential names would never change the truth-value of the sentence in which the substitution occurs. Therefore, not only, as I previously said, it is difficult to define 'opacity' in a non-fundamental language, and, if there is really opacity at this level, it disappears from the fundamental language. What I am adding now is that it does not even seem appropriate to talk about opacity in this case.

[11] For instance, Paul (2004; 2006) regards Lewis as rejecting AE for precisely this reason.

It was said that, according to Lewis, in order to get the truth-value of an essentialist sentence in a context, we need to know which similarity relations figure in the content of the utterance of that sentence. Therefore, the semantic values that are relevant for the truth of an essentialist sentence A about *a* in a context are the counterpart relations of *a* that figure in the content of the utterance of A in that context.

Thus, AE might be understood as the thesis that no facts about how we represent individuals must be involved in the selection of the similarity relations that figure in the content of an utterance of an essentialist sentence.

Lewis rejects AE under this interpretation. And I think that this is the ordinary reason for regarding Lewis as rejecting AE. The reason for such a rejection is that, in Lewis's view: (a) the relevant counterparts that individuals have are a matter of which similarity relations are salient, (b) salience is a contextual matter, (c) which is also determined, to some extent, as we saw, by the way individuals are represented.

Therefore, according to Lewis, facts about representations are involved, to some extent, in the selection of the relevant counterparts of *a*. Therefore, if AE is interpreted as the metasemantic thesis that no facts about how individuals are represented are involved in the selection of the semantic values that are relevant to the truth of *de re* modal sentences in a context, then it is true that Lewis rejects AE.

At this point, it should be clear that Lewis can be seen as making a point friendly to Quine's take on essentialist matters. Indeed, by virtue of the rejection of both the semantic and the metasemantic readings of AE, it turns out that, for Lewis, different properties might be determined as essential to *a,* according to different contexts and, often, according to different ways of representing *a*. Therefore, in accordance with Quine (1953a), Lewis does not adopt an "invidious attitude" towards the distinction between the properties that deserve to be determined as essential and the ones that are characterized as accidental, namely the attitude the friends of essentialism are guilty of, on Quine's view. Nonetheless, as I am going to argue, Lewis offers a defense of AE, in its metaphysical reading. I will be back on this point when I shall draw the conclusion.

Now, before turning to the metaphysical understanding of AE, I would like to discuss one significant aspect of Lewis's rejection of the metasemantic understanding of AE. One might think that, since Lewis accepts that facts about how we represent *a* are involved, to some extent, in the selection of its relevant counterparts, there is a sense in which Lewis can predict all of *a*'s *de re* modal properties. For instance, a very common way of conceiving or describing Socrates is to represent him as a human being. The selection of the relevant counterparts of Socrates might be affected, in some context C, by this way of representing him. It is obvious that, if we represent Socrates as a human being and this way of representing him determines which relevant counterparts he has in C, then in C all the relevant counterparts of Socrates will be human. Thus, since all of Socrates's relevant counterparts in C are human, unsurprisingly, Socrates is determined to be essentially human in C. So, the thought goes, there is a sense in which the Lewisian does not "find out" which *de re* modal properties individuals have. And this seems to be a consequence of the Lewisian rejection of the metasemantic version of AE.

I think that the Lewisian rejection of AE, in its metasemantic sense, does not lead Lewis to accept the epistemic consequence that he is able to predict all the *de re* modal properties of individuals.

It might be the case, for instance, that in some context C' the reason why we select as Socrates's relevant counterparts only human beings is that we represent Socrates as a philosopher (so that all of his counterparts will be philosophers). Let us suppose now that there is some relation of metaphysical grounding between the two properties, such that being a philosopher is grounded, in some sense, in being human. *If* this were the case, it would not depend on our way of representing Socrates, but only on how worlds are made. That is, it is not up to us to establish whether or not a chair might philosophize. So, in C', whether or not Socrates comes out as essentially human is not something that can be predicted: it depends on whether or not being a philosopher is somehow grounded on being a human being. Therefore, in this context, the modal status of the property of being human would be something to 'find out'.

Moreover, even though in C, where Socrates is represented as a human being, there is a sense in which it can be predicted that the property of being human will come out essential to him, still there might be some other properties whose modal status cannot be predicted.

For instance, it might be the case that, by virtue of how worlds are made, all the counterparts we selected in virtue of being human also share with Socrates some properties other than being human. And such properties would be essential to Socrates in addition to the property of being human. However, these hypothesized properties would be something we did not predict. In other words, we selected only those individuals who are human beings; however, since it is, for the most part, an objective fact which properties individuals have in their worlds,[12] we do not know anything about which other properties, if any, all these individuals share with Socrates.[13]

[12] I will return to this point soon.

[13] Besides the trivial essential properties, like being *P* or not-*P*, that all individuals have.

In this respect, let us consider the following example. In the context C, in which we have selected all the counterparts of Socrates by virtue of being human, while we can predict that "being human" will be determined to be essential to Socrates, we do not really know which is the modal status of the property, say, "being non-alien" with respect to Socrates. According to Lewis (1986, 91, 92), alien individuals are: (a) individuals no part of which is a duplicate of any part of this world; (b) individuals who instantiate an alien property; and (c) individuals who do not instantiate any alien properties but, instead, combine in an alien way non-alien properties. Whether there are human counterparts of Socrates who are also aliens, I think, depends mainly on how the worlds are made. Indeed, it can be supposed that there is an individual *a* who is human (*H*) and that is also alien: *a* may combine in an alien way the non-alien properties *H* and, say, *Q*; or, maybe, *a* might have both the property *H* and an alien property. In these examples, *a* is human and also alien (according to the Lewisian definitions of "alien individual"). Whether or not such scenarios are possible depends on how worlds are made: it depends on whether or not it is possible to be *H*, while combining *H* with *Q* in an alien way, or having *H* while also possessing an alien property. If these are genuine possibilities, then there are some worlds in which such possibilities are realized. However, from the fact that all of Socrates's counterparts are human, it cannot be predicted whether being non-alien is determined to be an essential or an accidental property of Socrates. Therefore, it is not up to us what properties are determined to be essential or accidental to Socrates, even though we rely on our ways of representing him in order to select his relevant counterparts. We only predicted, in this context, that Socrates is essentially human, but we have to "find out" which other properties, if any, Socrates shares with all of his relevant counterparts.

Therefore, the Lewisian rejection of AE, in its metasemantic sense, does not lead to the epistemic consequence that we are able to predict all the *de re* modal properties that Socrates has.

6.3. Lewis and the metaphysical understanding of AE

Metaphysics can be thought to concern the nature of the facts in the world, which are the truth-makers for sentences (the potentially truth-making properties, if we are going in for truth-maker talk). Therefore, metaphysically speaking, AE might be interpreted as the thesis according to which what makes essentialist sentences true are objective facts, independent of how we represent individuals.

It was said that, according to Lewis, an essentialist sentence like (14),

(14) Socrates is essentially human,

is translated in non-modal terms in CT: the translation of (14) in CT does not require one to postulate any primitive modality in the canonical language. Moreover, in Lewis's view, (14), if true, is made true by non-modal facts. Its truth, indeed, does not require the postulation of any metaphysical primitive modality either: (14), if true, is made true by the non-modal fact that Socrates shares the property of being human with all his relevant counterparts. That is to say, Lewis does not accept any essentialist primitives in his metaphysics either. So, in Lewis's view, *de re* modal facts are reduced to non-modal facts.

Given this, the thesis I want to defend in this Section is that such non-modal facts, which *de re* modal facts are reduced to, are independent of how individuals are represented. That is, granted that essentialist sentences about Socrates are not made true by modal facts, I want to show that they are made true independently of how we represent Socrates. In other words, I want to show that Lewis accepts AE, in its metaphysical understanding.

We saw that the relevance of some counterpart relation is always a contextual matter, sometimes influenced by our way of representing the individuals. However, what ultimately makes essentialist sentences true are facts that are independent of our ways of representing individuals. Let us consider two aspects.

Firstly, the obtaining of some counterpart relation is a matter that is independent of how we represent individuals. As Divers puts it, "[…] *what may change* […] *are facts about which counterpart relations are relevant in a context, not the facts about the obtaining or otherwise of counterpart relations*" (2007, 18). Individuals have different relevant counterparts according to different contexts and so, sometimes, according to different ways of being represented. However, the obtaining of some counterpart relation is context-independent and, mainly, independent of our ways of representing those individuals. Let us see why that should be the case.

We know that counterparthood is a relation of similarity among individuals. Whether some similarity relation is relevant or not is a contextual matter that, sometimes, depends on how we represent individuals. Nonetheless, a similarity relation between individuals obtains independently of the ways in which those individuals are conceived or described. Indeed, similarity is defined in terms of properties sharing. The fact that two individuals have some properties in common, that they are similar in some way, does not depend, in general, on our ways of conceiving or describing them.[14]

[14] To be sure, in some special (maybe uninteresting) cases, the fact that two individuals share a property *does* depend on how they are represented. For instance, two individuals can be similar because they both have the property of being thought of by me or of being imagined by me, and so on. My arguments in this paper do not hold when the similarity relations are based on the sharing of these kinds of properties.

Secondly, it is not only that the obtaining of some counterpart relation is independent of how we represent individuals. Moreover, the fact that there are some properties that, say, Socrates shares with all his relevant counterparts is independent of how we represent Socrates. Indeed, which properties objects have in their worlds is, for the most part, a matter independent of how we represent them: it depends on how worlds are made.

Now, what is shown by the two points just made is that an essentialist sentence such as (14) is made true by facts in the worlds which are independent of how we represent Socrates. Indeed, we know that what would make sentence (14) true is the fact that all the relevant counterparts of Socrates are human. Let us suppose that in a context C Socrates's relevant counterparts are Socrates, *a* and *b*. Well, if (14) is true in C, this is the case by virtue of objective facts:

- objective facts of similarity, that is, facts of similarity that obtain independently of how Socrates is represented: it is an objective fact if Socrates, *a* and *b* are counterparts of Socrates, since it is an objective fact if they are similar to Socrates under some respects, being an objective fact if they share some properties with Socrates.
- the objective fact that objects have the properties they have: the fact that Socrates, *a* and *b* are human does not depend on our way of representing those individuals; that is, the fact they are all similar to Socrates because they are all human is an objective fact.

Therefore, essentialist sentences such as (14) are made true by (non-modal) facts, which are independent of how the individuals are represented.

Accordingly, Lewis accepts AE in its metaphysical interpretation.[15] And I think that this should not be underestimated when we attempt to understand Lewis's stance toward AE. Indeed, the point about AE, broadly understood, is to forbid context-dependence and, in particular, dependence on our ways of representing individuals whenever such dependences stem from attributions of essentiality. However, it has been shown that, in Lewis's view, the role of context is limited to semantics and metasemantics, and the role of facts about

[15] I have largely stressed, from the outset of the paper, that Lewis rejects the thesis according to which things have essential properties in themselves. However, based on the discussion of this Section, we can say that the properties that are determined to be essential are grounded on the nature of their bearers. Now, we know that, on Lewis's view, metaphysics must be accommodated in order to provide for truth-conditions of essentialist sentences to be satisfied, by adding a plurality of worlds, with all the commitments that, metaphysically speaking, this means. As a result, the properties that are determined to be essential are also grounded on the nature of such worlds, inasmuch they are also grounded on how these worlds are made. This might suggest that there is a sense in which Lewis's conception of AE, as it is defended in this paper, is even metaphysically stronger that the one discussed by Quine.

representations is limited to metasemantics. At the level of metaphysics, no facts about how we represent individuals are involved in the attributions of essentiality to some properties of individuals.

Now, Lewis claims that "[t]*he true-hearted essentialist might well think me a false friend, a Quinean sceptic in essentialist's clothing*" (1983, 42). In the light of what has been argued in this paper, I think that one way to understand this statement is as follows. On the one hand, for Lewis, facts about representation are relevant to the assessment of which properties deserve to be determined as essential, so that, as we saw, on his account and in accordance with Quine, we need not adopt some "invidious attitude" towards certain ways of characterizing an object as better revealing its essence. On the other hand, Lewis can still offer a defense of AE, if AE is read from a metaphysically perspective, since these facts about representation are not involved in the attributions of essentiality to some properties of individuals.

Note also that the Lewisian defense of AE, in its metaphysical sense, shows that the inconstancy of *de re* modal statements is compatible with the postulation of objective facts in the world that make essentialist sentences true. As Divers puts it: "*There is no need to postulate mind-dependent* […] *essences in order to account for the inconstancy of de re modal predications and so (to that extent) the spirit of 'Aristotelian essentialism' survives*" (2007, 18-19).

In other words, we saw that the truth-value of sentence (14) ("Socrates is essentially human") might change according to different contexts. However, first, modal facts are reduced to non-modal facts. Second, such non-modal facts which are the truth-makers for (14) in a context C are context-independent and, mainly, independent of how Socrates is represented. Indeed, it is not a matter of context or of how Socrates is represented whether or not Socrates and the individuals that in C are determined to be his relevant counterparts exemplify the property of being human: it depends on how worlds are made. Finally, in C where (14) is true, it would be misleading, as I mentioned in Section 2, to call the property of being human an "essential property" of Socrates, since its exemplification (by Socrates and his relevant counterparts in C) acts as the truth-maker for (14) only in some context. Therefore, the properties picked up in a context by a truth-condition for an essentialist claim, namely the potential truth-making properties, are neither contextually instantiated nor should be called "essential". Simply put, in Lewis's view, there is no need to postulate context-dependent essential properties required for the truth of context-dependent essentialist claims. And, in this sense, AE survives in Lewis's metaphysics.

7. *Conclusion*

Lewis is said to accept metaphysically neutral essentialism, namely, the thesis that some non trivial properties are determined to be essential to some individuals. AE represents a stronger, metaphysically more robust conception of essentialism.

After having distinguished between three ways of understanding AE, and having claimed that Lewis rejects AE, when AE is interpreted either as a semantic or as a metasemantic thesis, I argued that Lewis accepts AE in its metaphysical sense. This is the case because, in Lewis's view, essentialist sentences are made true independently of how individuals are represented. In other words, even though Lewis analyzes essentialist claims as context-dependent, he does not need to postulate context-dependent essential properties. And, it is in this sense that AE survives in Lewis's theory.

Acknowledgments

I am very grateful to John Divers, Pasquale Frascolla, Giorgio Lando and Daniele Sgaravatti who gave their time to help me improve this work.

Cristina Nencha
Università degli studi dell'Aquila, Dipartimento di Scienze Umane
cristina.nencha@libero.it

References

Della Rocca, Michael, 1996, "Recent Work in Essentialism, Part 1". *Philosophical Books*, 37: 1-13.

Divers, John, 2007, "Quinean Skepticism about De Re Modality after David Lewis". *European Journal of Philosophy*, 15: 40-62.

Divers, John, 2017a, "De Re Modality in the Late 20th Century: the Prescient Quine". In *The Actual and the Possible: Modality in Modern Philosophy*, edited by M. Sinclair, pp. 217-236. Oxford: Oxford University Press.

Divers, John, 2017b, "How Skeptical Is Quine's 'Modal Skepticism'?". *The Monist*, 100: 194-210.

Fine, Kit, 1994, "Essence and Modality". *Philosophical Perspectives*, 8: 1-16.

Hylton, Peter, 2007, *Quine*, London and New York: Routledge.

Kripke, Saul, 1980, *Naming and Necessity.* Oxford: Blackwell.

Lewis, David, 1968, "Counterpart Theory and Quantified Modal Logic". *The Journal of Philosophy*, 65: 113-126.

Lewis, David, 1979, "Scorekeeping in a Language Game". *Journal of Philosophical Logic*, 8: 339-359.

Lewis, David, 1980, "Index, context, and content". In *Philosophy and Grammar*, edited by S. Kanger & S. Öhman, pp. 79-100. Dordrecht: Reidel.

Lewis, David, 1983, "Postscripts to 'Counterpart Theory and Quantified Modal Logic'". *Philosophical Papers*, Vol. 1, pp. 39-46. Oxford: Oxford University Press.

Lewis, David, 1986, *On the Plurality of Worlds.* Oxford: Blackwell.

Marcus, R.B., 1967, "Essentialism in Modal Logic". *Noûs*, 1: 91-96.

Paul, L.A., 2004, "The Context of Essence". *Australasian Journal of Philosophy*, 82: 170-184.

Paul, L.A., 2006, "In Defense of Essentialism". *Philosophical Perspectives*, 20: 333-372.

Quine, Willard Van Orman, 1947, "The Problem of Interpreting Modal Logic". *The Journal of Symbolic Logic*, 12: 43-48.

Quine, Willard Van Orman, 1948, "On What There is". *The Review of Metaphysics*, 2: 21-38.

Quine, Willard Van Orman, 1951, "Two Dogmas of Empiricism". *The Philosophical Review,* 60: 20-43.

Quine, Willard Van Orman, 1953a, "Reference and Modality". In Quine, *From a Logical Point of View*, pp. 139-159. Cambridge, MA: Harvard University Press.

Quine, Willard Van Orman, 1953b, "Three Grades of Modal Involvement". *The Journal of Symbolic Logic*, 20: 168-169. Page references to Quine, 1966, *The Ways of Paradox and Other Essays*, pp. 156-174. New York: Random House.

Quine, Willard Van Orman, 1960, *Word and Object*, Cambridge, MA: MIT Press. Page references to Quine, 2013, *Word and Object, New Edition*. Cambridge, MA: MIT Press.

Smullyan, Arthur F., 1948, "Modality and Description". *The Journal of Symbolic Logic*, 13: 31-37.

Virtue and Continence: Defending their Cognitive Difference

Matilde Liberti

Introduction

In her recent paper *Virtuous Construal* (2019) Vigani provides psychological support to McDowell's silencing effect of virtue, arguing that it is through her moral outlook that the virtuous person represents the situation as an occasion for virtue only. The term "silencing" is still, however, a controversial matter, for it might lead to the conclusion that the virtuous person does not feel any sort of attachment to what is being silenced, thus suffers no genuine loss when it comes to forsaking something valuable in the face of virtue ("no-genuine loss theory": McDowell 1998; Baxley 2007). On the other hand, if we try to argue that what is silenced does not completely cease to exist in the eyes of the virtuous, then it is not clear what the difference between virtue and self-control (Aristotle's *enkrateia*, continence; NE 1150a35) amounts to. The aim of this paper is to defend the difference between virtue and continence in terms of cognition;[1] that is to say, to provide further support to Vigani's argument explaining how it is possible for something to be valuable yet be silenced (thus avoiding the no-genuine loss theory) and how this possibility is precisely what marks the difference between virtue and continence. I shall articulate my defence in the following steps: (A) arguing for the compatibility between a difference in cognition and Aristotle's distinction between the virtuous and the *enkrates* (sections 1 and 2), (B) arguing that the silencing effect does not imply blindness to commonly shared human values (e.g. family, relationships, survival; section 3), and (C) making sense of the difference between virtue and continence in terms of deliberation (section 4). I shall be as loyal to Aristotle as possible, grounding my argument on the following premises: (i) virtuous actions issue from a virtuous conception of a life

[1] For a less strictly cognitive reading see Mele (on the *phronimos*' "orectic commitment" to *eudaimonia* 1985: 388; 1992), Santas (on the failure to "cause movement" of mind and reasoning alone, 1969: 170) and Stoyles (on the need to focus less on the cognitive state of the *akrates* and the *enkrates* and more on the role of their desires and affections; 2007).

philinq X, 2-2022, pp. 39-58
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.354
Submitted: 15 January 2021
Accepted: 4 November 2021

worth living (*eupraxia*: NE 1139a31-b5); (ii) there is some sort of context-dependency when it comes to deliberating virtuously (NE 1112b10-20); and (iii) virtuous deliberation does not allow for the inner struggle that is proper of continent deliberation (a "harmony" between appetites and reason: NE 1151b35-1152a5; while the continent is the one who has self-control: NE 1152a25-7). If I manage in the quest, then we will have found what the continent is missing in order to become virtuous, and it shall neither look in-humane nor undesirable; just hard.

1. *Who is the continent?*

The main example that will guide our inquiry is taken from recent Italian history.[2] In 1979 lawyer Ambrosoli was assassinated on behalf of mafia as a consequence of his uncovering of banker Sindona's fraudulent financial empire. He was well aware of the danger and had different occasions to step back, decide to look away and live a peaceful, wealthy life; but even when the threats became explicit he still pursued his inquiry. On the face of it, we could say that Ambrosoli was virtuous because he did the right thing notwithstanding the risk; but what shape did his virtuous reasoning take? Did he blindly value justice over anything else, or was he torn between a clash of values (e.g. the love for his family and the duty towards the State)?

In Book III of the *NE* Aristotle states that the mark of the brave is that he can foresee the pain that the brave action would cost him, but he pursues it anyway (NE 1117b5-20). He also writes that it is pleasurable to act on virtue, but not all virtues can be enacted pleasurably (NE 1117b15); as a matter of fact, the brave is the one who chooses to face what is painful and feels the pleasure of doing so (NE 1116a10-15). Thus, virtue involves a choice (NE 1105b30-1106a5) and this choice has a cost. In light of this, it seems unreasonable to think that the virtuous lawyer does not feel pained by the prospect of his own death, or of that of his family. What, on the other hand, does seem reasonable to say is that he is virtuous precisely because, much like Aristotle's brave, he was pained by such prospects, but acted anyway; and did not do so blindly, but because he took a conscious choice over what good to forsake. If this is true, then the only difference between the virtuous and the continent is that the former is more reliable in choosing virtue over other valuable (and sometimes more pleasurable) perspectives, while the latter is more prone to be tempted by non-virtuous but highly valuable aspects of life (Baxley 2007). Thus, the first question we need to address is: is there really a difference between the continent and the virtuous?

In Book VII of the *NE* Aristotle draws a distinction between continence and

[2] I would like to thank my colleague Dario Cecchini for suggesting the example.

temperance in terms of harmony between appetites and reason (NE 1151b35-1152a5). As a matter of fact, while in the temperate person reason and appetites would normally go in the same direction, in the continent they act in opposition to each other (Tieleman 2009: 175). Temperance is, thus, a virtue of character and, in particular, the one that corresponds to the excellence of continence, while continence is just a kind of "semi-virtue" (Tieleman 2009: 175; NE 1150a35), that is to say, a step that is close to virtue but that still has something missing in order for it to qualify as a virtue. The fact that continence is a state that is close to virtue but not a virtue is emphasized once again by Aristotle when he distinguishes *enkrateia* (self-control) from mere stubbornness (NE 1151b4-15). He states that *enkrateia* is marked by the (correct) constancy of sticking to the right reasons, while stubbornness is marked by the (incorrect) constancy of blindly sticking to the wrong reasons (Broadie 2009: 168) and, thus, is characteristic of those who cannot dominate their appetites at all (NE 1151b10). The *enkrates* is flexible, and when it comes to the struggle between appetites and reason, she is obedient to the right reasons (NE 1102b26-8; 1151a26-27) and has control over her actions (NE 1152a25-7; Mele 2011: 466-467). We can thus begin to draw a broad picture of the continent agent: she still suffers from significant disharmony between appetites and correct judgments, but her self-control allows her to pursue the right reasons to act even when they clash with her desires (NE 1146a9-16). Acting on the right reasons will, thus, be the outcome of an internal struggle, which is what ultimately distinguishes it from true virtue, since in the virtuous person judgments and desires align (NE 1147a25-1147b5; 1148a10-17; 1150a25-30; 1152a2).[3] But is it a psychologically plausible distinction? And does it allow for a humanly-achievable account of virtue?

McDowell understands the difference between the virtuous and the continent in terms of cognition: the former cognises the situation through what he

[3] In the picture I am trying to defend, moral emotions can play an important role as the *affective* representations of reasons for action (Dancy 2014); that is, they can explain our access to reasons for action and, thus, express one's moral vision. This view is compatible with moral motivation pluralism, according to which various kinds of both affective and cognitive states can be source of motivation to act (Corns & Cowan 2021), as well as with an Aristotelian account of emotions, where they comprise of both a cognitive and an affective component (Kristjánsson 2010) and where virtuousness implies having "the proper experience of emotions" (Kristjánsson 2007: 52). Now, a comprehensive account of the role of affective states in the shaping of moral vision is not in the scope of this paper, which is, on the other hand, focused on defending the cognitive difference between the virtuous and the *enkrates*. My argument does not imply that the cognitive difference is the *only* difference we can make sense of, so the role of affective states does not undermine it in its limited scope. However, such role does undermine a purely cognitive account of moral vision, making my argument the preliminary part of a much wider research on the shaping of moral vision (see Kristjánsson 2013 on the process of emotional sensification in moral education; and Kristjánsson 2018 on the "affective turn" in moral education and the role of emotional traits in a life of *eudaimonia*; chapters 1 and 9).

calls the silencing effect of virtue, while the latter has a clouded representation of the situation (McDowell 1998: 55-56), and this is why the continent has to overcome inner struggle, while the virtuous does not. As a matter of fact, according to the silencing thesis, the virtuous person's attention is drawn by the requirement of virtue only, because all other features of the situation are silenced. Not having the silencing effect at work implies having a confused depiction of the situation, where the requirement of virtue clashes with other non-virtuous requirements. The continent's vision differs from that of the virtuous in its being blurred, that is, not clear over what reason to act on (McDowell 1998: 92). This explanation in terms of cognition is compatible with Aristotle's epistemic distinction between in/continence and virtue, according to which knowledge comes in degrees and the in/continent person only "half-has knowledge" (NE 1146b30-35); that is, she might know that she has to do what virtue requires, but not to the point of truly believing it, and this is why she is troubled about what to do (NE 1147a10-25; Toner 2003). If she had full knowledge, she would have represented the situation as a way to act on such knowledge only; but since she only has half-knowledge, then she depicts reality as somewhat deficient, precisely as her knowledge. If this is true, then virtuous action seems somehow *automatic*; that is, naturally generating from the virtuous representation of the situation. This has a significant implication: it sounds like arguing that Ambrosoli did not need to deliberate over what course of action to pursue, while the continent's choice is the result of an internal struggle between clashing reasons to act. This explanation in terms of reasons is the core of McDowell's argument for the perceptive aspect of virtue: the continent has to decide what to do, while the virtuous perceives what to do. I shall analyse virtuous deliberation in section 4; in particular, what *kind* of deliberation it is that is proper of the virtuous character and what *kind* of automaticity is granted by a virtuous construal, in accord with Aristotle's argument for the centrality of deliberation in practical wisdom (NE 1140a25).

Now, the no-genuine loss theory seems to find some confirmation in the *NE* where Aristotle talks of the brave. Since virtue is marked by the proper emotion, then the truly brave agent does not suffer for the perspective of facing great danger or pain (NE 1104b5-9; Leighton 1988). The correctness of the emotion is granted by the fact that the brave is one who has developed brave *habits* when it comes to facing dangers; braveness has, thus, become a dispositional state, that is to say, a virtue (NE 1106a11). If a person feels regretful for her choice to face danger, then she was not brave in the first place; if a person feels regretful for her choice to pursue virtue, then she was not virtuous in the first place. We can thus imagine that the continent person will be one who, being also prone to inner struggle, would feel regretful for having pursued virtue when the stakes were high. On the other hand, what does not seem to find confirmation in the *NE* is McDowell's distinction between the continent and the virtuous in terms of deliberation: as I have just mentioned, he argues that, when the requirement of virtue is clear, the truly virtuous agent does not need to deliberate (1998: 51). However, Aristotle clearly states that virtuous action is the product of virtuous choice (NE 1111b25-30) and a significant step towards virtue is that of correctly deliberating on how to pursue a virtuous end (NE 1112b12-20). Allowing that there are such things as moral dilemmas and hard choices we all have to face in life, it seems that the distinction between virtue and continence becomes, once again, faint; if it is true also for the virtuous person that she has to deliberate, then, provided that the continent is the one who has self-control and thus responds to the virtuous requirement (that is, she does the right thing in the end), could it not be the case that both the virtuous and the continent have to undergo some sort of internal struggle when it comes to putting the virtuous requirement into action? Crucially, if this is the case, then would it not also be the case that, if the virtuous person has to deliberate over what pleasure to forsake, then she might just as well feel regretful as a consequence to her choice? These are questions on the nature of values: if something is highly valuable, then it seems implausible to say that it can cease to be valuable in the face of virtue. Because if that was the case, then the virtuous person would start to look more like the blind Stoic rather than the virtuous brave. For example, according to this picture the virtuous lawyer only saw reasons to act justly and no reason to act on love for his family, which implies that, as stressed by Baxley (2007) he was not harmed by his choice of virtue, nor that he suffered any genuine loss when ultimately sacrificing something highly valuable for the sake of virtue (407). Thus, the virtuous person is one who does the right thing and does not feel the pain of doing so.

The dispute concerns the term "silencing": while Baxley argues that if something is valuable, then it is not silenced, McDowell seems to hold that something can be valuable to the agent yet be silenced when it comes to virtue's ultimate requirement. Does this mean that virtue is the only valuable feature of one's life? McDowell seems to imply so when arguing that virtuous silencing is possible because the virtuous and the continent lawyers have two different conceptions of a life worth living: in the former conception virtue is not all there is to make a life worth living, thus the continent lawyer will see many clashing reasons to act one way or another. For the virtuous person, virtue is what *eudaimonia* consists in (McDowell 1998: 6), therefore the reason that the virtuous lawyer will see is the one that marks out the action required by virtue (McDowell 1978: 26). So, should we conclude that the virtuous person, given her commitment to *eudaimonia,* cannot but act on virtue, as if she was a sort of slave to the virtuous requirement? This sounds significantly different from the commonsensical view of the virtuous person as one who is virtuous precisely because she is not a slave to virtue, but decides to pursue it no matter the loss (Baxley 2007: 409-410). Moreover, how can we truly say that we value something if relinquishing it would not count as a genuine loss? Seidman's example of the shopkeeper (2005: 73) presses on this point: if a shopkeeper facing bankruptcy does not think of every possible option (that is, even the illegal ones) to save his only source of income and, consequently, his family, can we truly say that he valued them, or his business, in the first place? Maybe he did, but not as strongly as to continue valuing them in the face of the virtuous requirement of not perpetrating illegalities. If any kind of value can be silenced when colliding with virtue, then we should conclude that in order to be truly virtuous one should devote oneself to it, making virtue the ultimate life worth above all else. This neither sounds humanely achievable, nor remotely desirable.

I have isolated the following problem: it is not clear what the ultimate difference between virtue and continence amounts to given that both the virtuous and the continent feel some sort of loss when it comes to forsaking something valuable, making virtue look just like a reliable version of the continent's self-control. On the other hand, it seems that if we wish to save Aristotle's distinction, we would need to draw a depiction of the virtuous which is that of the Stoic who blindly forsakes any value that happen to clash with virtue. In what follows I shall argue for a solution that allows for virtuous regret, but of a very distinct kind from that of the continent. Let us now proceed by analysing what the cognitive difference between virtue and continence might consist in.

2. *Difference in cognition*

McDowell's claim that the virtuous and the continent see the situation in different manners was recently supported by Vigani (2019) through a construal-based explanation. She uses the example of a by-passer dropping their wallet: the virtuous person represents the situation as an occasion to return the wallet, the in/continent person represents it as an occasion to either return the wallet or pocket the money (that is, due to her internal disharmony she might feel reluctant to return it), the vicious person represents it as an occasion to pocket the money (231). Let us understand "represents" and "occasion to" in McDowell's terms: how the virtuous person depicts the situation is a result of the silencing effect, and how she will act is guided by the reason that is not silenced. This makes it so that the virtuous person does *not* construe the situation as one in which she might as well pocket the money; thus, she does not see any reason to pocket the money. Problems arise, as we noted, when what the virtuous person does not see reasons to act on constitutes something valuable to them. When there is both family and justice at stake, the virtuous lawyer only sees reason to act on justice, while we can imagine a continent lawyer seeing reasons for both acting on justice and living a peaceful family life. We have two questions to answer here: 1. how is it possible to construe the situation while silencing something valuable?, and 2. what does it mean for something valuable to be silenced?

The answer to the first question can be explored starting with what seems to be an authoritative trait of virtue: if an agent has a virtuous representation (a "schema"; 2019: 240) of a life worth living, then she will construe situations accordingly; that is to say, as a way to act on the virtuous requirement she clearly has in mind. Now, we can imagine the kind of life that is worth living for a virtuous lawyer as being one in which abiding to mafia diktat is not an option. This is perfectly compatible with a dimension of worthwhileness that includes a peaceful family life, until the worth of a peaceful family life gets entangled with the option of abiding to mafia diktat. This is when the virtuous schema becomes authoritative: there was no way for the virtuous lawyer to both pursue justice and care for his family, and given that caring for his family would have meant dropping his pursuit of justice, it was not an option to him. On the other hand, we can imagine the continent lawyer's representation of worthwhileness as including the possibility of being corrupted if it means being sure to stay alive and be able to provide for his family, thus he will see both reasons to pursue justice and surviving. Now, "continence" goes to indicate that, in the end, he does the virtuous thing, but he is not reliable in doing so because he had to overcome his temptations (McDowell 1998: 47; NE 1151b34-1152a5), while he would be "incontinent" if he decided for corruption. The key here is that we get a picture of the virtuous person as being one that has a virtuous schema of worthwhileness that guides (authoritatively over other dimensions of worthwhileness) the depiction of the situation and who, for this reason, does not need to deliberate over which reason to act on. This might already sound pretty strong, but we can allow for the virtuous' harmony to include both the judgment that he ought to pursue justice and the strong desire to do so.

The answer to the second question is actually a clarification of the term "silencing". Incompatible values are silenced in their motivational force, but this does not mean that they stop existing for the agent (Vigani 2019: 236-237). For the virtuous lawyer there is no reason to act on family values given their entanglement with the perspective of corruption, and what this means is that he feels no motivation to act accordingly. This is not to say that family values stopped being important for him, or were never so in the first place. What this is to say, is that the virtuous person does not act on self-control ("I must refrain from being corrupted", as *enkrateia* would allow; NE 1168b34-1169a5), nor on blind stubbornness ("I must pursue justice no matter the cost"; NE 1151b5-10). What the continent is missing in order to be fully virtuous is precisely this capacity to hold something as valuable, without it becoming a reason to act in opposition to virtue. The price of virtue, though still present, starts to look less like Stoic forsaking and more like a *modus vivendi*. It is not a pondered decision to sacrifice values for the sake of virtue, but rather the condition of feeling the motivation to act on virtue only, while still valuing all there is at stake. McDowell presses on the point that sees the virtuous person not regretting the action undertaken for the sake of virtue (no-genuine loss), but that can (and indeed does) feel regretful for the circumstances that he found himself in (McDowell 1995; Peters 2015). We can call this "weak no-genuine loss" theory, as opposed to the "strong" one that sees the virtuous person as not feeling any kind of regret whatsoever. The silencing effect does not imply the strong version of the no genuine loss theory, because nothing in the silencing of non-virtuous reasons makes it so that the agent cannot still feel that she is forsaking something valuable. The fact that such forsaking and its correlated pain does not constitute a reason to act otherwise (does not motivate her to act otherwise) does, however, imply that the agent will not feel regretful for having pursued the virtuous course of action, because regret would imply that she did not actually wish to pursue virtuous worthwhileness in the first place. Thus, there is no regret for having acted on virtue, but we can reasonably allow regret for the circumstances the virtuous person has found herself in.

Thus, virtue marks a difference in cognition because being virtuous does not only mean reacting virtuously to the features of the particular situation (simple skill), but also construing the situation as an occasion for virtue rather than for, say, vice or in/continence. Now, the assumption here is that this occasion for virtue is itself motivating, because, in the virtuous person, choice and desire align (NE 1113a10-13); that is to say, the virtuous person's desire to act on virtue is the immediate result of her virtuous deliberation (Toner 2003). It is not possible to be wise and not feel the desire to act on wisdom (NE 1113a10-15), because having full-knowledge *causes* virtuous action. This, on the other hand, does not happen in the continent; her knowledge is not yet fully-formed, thus the causational chain is somewhat faulty. She might end up doing the right thing, but her correct action would not have come about in the same way as it did for the virtuous person. We can thus conclude that, when it comes to cognitive states, we can understand this difference in terms of motivation: the virtuous person represents the situation in a way that is automatically motivating (where automatically means without any additional mediums), while the continent does not, or not to the same degree. We shall explore virtuous automaticity and deliberation in section 4, let us now linger a little more on the difference in terms of situation-construal.

We can now draw a better picture of what the virtuous personality amounts to, adding that the silencing effect is the result of the agent's cognitive *and* affective states (virtuous inner harmony). McDowell puts this intuition forward when talking about the agent's experience of secondary qualities: as a matter of fact, secondary qualities are

> "propert[ies] the ascription of which to an object is not understood except as true, if it is true, in virtue of the object's disposition to present a certain sort of perceptual appearance" (McDowell 1998: 133).

Thus, the agent's experience of secondary qualities makes it so as they are, for the agent,

> "qualities not adequately conceivable except in terms of certain subjective states, and thus subjective themselves" (McDowell 1998: 136).

It seems that there are two dispositions present: one in the object that is disposed to be perceived, the other in the subject who is disposed to perceive, and how both these perceptual dispositions are brought about depends on the nature of such dispositions, where "nature" indicates the drive of the agent's moral outlook. It is not in the scope of this paper to defend McDowell's perceptual claim of some properties being dispositionally present in the object; what is relevant here is the dispositional perception of the agent (NE1106a11: virtue as a dispositional state), that includes, as we argued, the moral outlook according to which she construes the situation and the disposition to be automatically motivated by certain features of the situation. This is important because it stresses once again what I have argued so far: the virtuous agent is not just the one who "reacts well" in each situation, because if that was all there was to virtue, then exponents of empirical psychology would be right in pointing out that, actually, non-moral situational features play a much bigger role than they seem they should in automatic deliberation (if I am in a hurry I will be less inclined to stop and help a by-passer, as stressed by the "situationist challenge").[4] Quite the contrary, both moral and non-moral features play the role that the agent's virtuous disposition allows; that is to say, if I do not stop to help a person in need because I am incredibly late for work, what this means is that my moral outlook

[4] The "situationist challenge" (Doris 1998, Harman 2000) is the objection to virtue ethics that comes from empirical psychology; they press on the evidence that situational factors play a much bigger role in deliberation than virtue ethicists would like to allow (whether I have change with me to spare, or whether I am in a hurry, would impinge on my being inclined to help a passer-by, for example). The challenge was recently advanced in terms of 'moral dissociation' (Merrit *et al*., 2010), according to which people do not consistently follow the diktat of their conscience, thus we should not speak of the virtuous character as something that has integrity.

includes the possibility that, if I am late for work, then the rest of the world stops existing. Thus, if I notice that a person needs my help, I might feel that I should help her, but since I also have the option to keep running to the office, then I would probably do so. If, on the other hand, I do not have the option that the world stops existing in the face of my being late for work, then I will help the person and my doing so ending up being even more late does not imply that my job suddenly stopped being important to me. Although plausible, the latter example might strike as suspicious: how can my job still be important to me, yet fail to motivate me to keep running to the office? In order to answer this quest, we need to make better sense of what it means for values to be silenced, yet be somehow present in the agent's awareness. Dancy's holism (2004) is an exhaustive explanation of how a feature of the situation can be significant, yet fail to contribute to the overall reason to act. In what follows we will see how values behave in a similar way and explore how the holism of values can help us with our picture of the virtuous person.

3. *Silenced values*

In the example of providing help notwithstanding being late for work, what was it that worked as decisive for acting in favour of helping rather than running to the office? According to the core thesis of the holism of reasons, all features of a particular situation contribute in some way, but none are intrinsically decisive, to the overall reason to act. Now, the "overall reason" is not an extra reason in addition to the contributory ones (that is, "I am late" thus, extra reason: "Job is more important"); rather, we should think of it in terms of "where the contributory reasons come down – on this side or that" (that is, either "I help" or "I run to work"; Dancy 2004: 16). In other words, whether I judge that I have more reason to help a person in need than to walk by does not specify a further reason for me to help the person in need. To see how this might work let us use Dancy's own example and imagine I promised my friend to help her move house:

> (1) I promised to do it.
> (2) My promise was not given under duress.
> (3) I am able to do it.
> (4) There is no greater reason not to do it.
> (5) So: I do it
> (5*) So: I ought to do it.
> (2004: 38)

Dancy's point when distinguishing between (5) and (5*) is that if we end up with (5*) we are thinking of reasons as if they were in a right-making relation with one another, thus building up a logical argument in which they function independently from one another (as premises). For the sake of the argument, whether we end up with (5) or (5*) is not crucial; what matters is that we should think of reasons in terms of favouring and enabling relations. That is to say, we should understand the resultant action as the synthesis of the reasoning that led to it as opposed to thinking that we can find the reason that makes the action right independently of the others. As a matter of fact, between (1) and (4) there is no independent reason for (5). We can say that the fact that I promised to do something counts in favour of my doing it, so (1) stands in a favouring relation to (5). According to (2) if I were to have promised under duress, then I would have had a reason not to (5); thus, (2) enables (1) to favour (5), because were (2) not the case, then (1) would have not favoured (5). The same goes for (3) and (4): each reason has contributed in some way but none were intrinsically decisive (2004: 43). In other words, it is not the simple fact that I promised my friend to help her that made it so that I helped her (or that it was right for me to help her), but the contribution that this and other reasons provided to the overall reason to help, which is called "overall" only to indicate that it is the reason all other reasons end up favouring the most, not an extra reason we discover by somehow adding up all those we have.

At this point, an analogy with values might strike as extreme: surely, the fact that I promised something does have some value, so does make a difference to the final value[5] to promote. Before proceeding to the analogy between holism of reasons and holism of values I must clarify what the relation between reasons and values is in Dancy's terms. He argues that it is true that whenever there is a value there are reasons (e.g. I value the well-being of my family, thus I have at least one reason to care for my family), but "to be of value is not itself to have reason-giving features" (2004: 88). That is, the fact that I value the well-being of my family is not itself what gives me reasons to care for my family. We can now see how Dancy treats values in a way that is significantly similar to that of reasons, arguing that no value can be treated as valuable independently of others (holism of values) and that the fact that values can vary in intensity does not imply a change in the object that is valuable (2004: 170). He grounds the holism of values in his argument against Moore's invariabilist account of supervenience, according to which if there is a change in the intensity of the final value, then there must also be a change in the object of value so that there is never a discrepancy between the value of the object and the value it goes to contribute to (do not vary independently of one another: 177). That is to say, if something is

[5] In what follows I shall call "final" value what Dancy calls "overall" value, as mean to clear away the idea that reasons and values add up to an overall reason/value.

intrinsically valuable, then it cannot vary in value unless something else about it changes significantly. Thus, if we take a promise to be intrinsically valuable, then it must make as much difference to the final value as the value that it holds, unless something about this promise changes radically (say, I am a pathological liar, thus all my promises are void of intrinsic value). If this is true, then there can never be an instance in which there is something valuable (family) that maintains its value without making a difference to the final value (virtue).

Dancy argues for a different account of supervenience that is less local in its allowing for an object to change in value intensity as a consequence of a change *somewhere* in the situation and not necessarily in the object itself (177-178). This context-dependency does make a difference on the object's being ultimately valuable, but does not necessarily impinge on what makes it so that it is valuable. In order to support this, Dancy draws a distinction between resultance relation and supervenience relation (178): the resultance relation of the promise is the relation between the promise and what makes a promise valuable; that is, between the action of promising and only some non-moral properties (Dancy 1981: 381), e.g. the fact that a promise does not need anything but pure trust in the person who makes it, to name one. The supervenience relation is the relation between the promise and the context of the promise; that is, between the action of promising and all the non-moral properties that the particular case presents (2004: 381-382), e.g. the fact that I am a pathological liar does not impinge on the resultance relation between the promise and what makes it valuable, but it definitely limits the amount of value that my promises ultimately carry. Less extremely, if I am urgently needed somewhere else and thus cannot fulfil the promise I made to my friend, there is nothing in the promise itself that changes; rather, the urgency affects the promise's making a difference to what is ultimately valuable in that moment.

Going back to our original example, we can now say that if all this is true, then it is plausible for something as valuable as family care to be valuable for the virtuous lawyer without necessarily contributing to the final value. But what is this final value and what is its relation to the parts that contribute to it? In Dancy's words, the value of the whole does not coincide with the addition of all values of the parts (just as for the holism of reasons the overall reason is not the addition of all present reasons), but it contains the value of the contributing parts (181). This is crucial: once again what matters is the contribution (not something that is intrinsic to the value), and this contribution depends on the presence of other features. The fact that a requirement of virtue is present makes it so that pursuing virtue is what contributes to the final value, while family care, though maintaining their value, does not contribute in the same way. This is strong, because family counts as a *moral* reason to act, in the sense that there are some "oughts" that are implied. The situation is thus much more critical than when it comes to, say, one's survival: one might count one's own well-being as non-moral when it comes to clashing with virtue, but it is much less straightforward to do so when the well-being is that of one's children. This said, we reached the controversial part of the holism of values: it is not the case that family stops being valuable in relation to what it is that makes family valuable, but its strength in value is softened due to the context in which the lawyer cannot entertain the possibility of corruption. This asymmetry between value and value contribution might still sound suspicious; after all, we do want to say that there is something about the prospect of caring for one's family that charges it with value independently of other features of the situation. Dancy does not deny this and advances a moderate form of holism that

> "allows the possibility of what we might call 'default value'. By this I mean that it can accept a distinction between those features that bring no value to the situation, though once there they acquire a value that they can contribute to the whole, and those features that bring a value with them, though once they are there that initial value can be wiped out, or even reversed, by other features of the situation (185)."

We can thus argue that the prospect of surviving and, say, a book do not have the same "default value" when understood independently of anything else, because the former is already somehow charged with value. This is not to say that they cannot contribute in different ways or not contribute at all to the final value; a book can become incredibly valuable if it is the only copy left on earth (180), while family can become less valuable if it would necessarily bring perpetration of injustice with it. In this last case, the fact that a certain value is inextricably connected with a non-virtuous element is what makes the difference in terms of contribution.

Let us now merge the holism of reasons and the holism of values in light of what we have argued so far. The silencing effect of virtue makes it so that what is not relevant to the requirement of virtue ceases to be a reason for action; this is not to say that it ceases to be valuable and that cannot contribute to the final reason where the virtuous requirement allows it. This is possible because in the virtuous person the synthesis of reasons occurs under the authority of virtue; given that virtue is what silences non-salient reasons,[6] we will have values in some sort of relation with reasons, but not all of them will contribute to the resultant one. Let us make practical sense of this: in Ambrosoli's situation there was (1) the fact that he was a lawyer, thus it was his duty to pursue justice; (2) engagement with his duty towards the State, because he truly believed in his

[6] where "non-salient" does not mean "not valuable".

mission; (3) a family that needed his love and support; (4) explicit threats towards him and his family on behalf of the mafia. None of these features worked independently of one another; which means that, this is not a case in which we have two distinct moral requirements that clash and over which one needs to deliberate. Rather, the final construal of the situation is the result of the synergy among these features. (3) and (4) did constitute a source of value, but the situation a virtuous lawyer construes according to his schema is one in which abiding to fraud is not an option, thus anything that could work towards that outcome loses its motivational force. What the virtuous agent has automatic motivation to act on is the final reason, not the single reasons; thus, even though the single reasons are still present and contribute to the overall reason, they are silenced in their motivational force. Holism can thus explain how family can still be present in the virtuous lawyer's mind and heart (as something one can reason on and feel pained by), but at the same time fail to find any motivation to act for the sake of it given its entanglement with the illegal course of action.

This picture is compatible with Aristotle's discussion of voluntary and involuntary actions in NE Book III, where he claims that there are certain situations in which one would not have pursued a specific course of action if one could have done otherwise (NE 1110a19). We can see how nobody would voluntarily choose to die or to risk the safety of their family members if they could avoid doing so, which is precisely why the virtuous person is not a Stoic: she would not have chosen a particularly painful course of action if she had any other (virtuous) option available. Moreover, family is among those external goods that can be regarded as essential for a flourishing life (NE 1099b1-9), whether they be instrumental for acting on virtue (like friends, money or political power, NE 1099a32; or strength and comfort NE 1178a29-32) or whether not having them would imply living a significantly less-enjoyable life (which is our example; NE 1096a1-5; 1099b4; 1101a14-15).[7] The forsaking of such external goods is itself a painful experience for the virtuous person; the "weak" version of the no-genuine loss theory is, thus, compatible with Aristotelian virtuousness in its allowing for painful regret of circumstances that required the forsaking of such valuable goods.

Our analysis brought us to the following sketch of the virtuous person: she still feels the pain of the price of virtue, but also does not have to overcome inner struggle when it comes to doing the right thing. Baxley's objection states that the silencing effect is implausible, because if something is silenced then either it was not important in the first place (Seidman's shopkeeper), or it completely

[7] For a discussion on Aristotle's use of external goods in the *NE* and in the *Politics* see Cashen (2016).

ceases to exist in the eyes of the virtuous, thus making her look like a blind value foresaker who does not feel any pain in doing so ("strong" no-genuine loss). If this is true, then virtue does involve some sort of internal struggle when it comes to clashing values, making it look more like continence than Aristotle's dispositional excellence. Thus, one way to save the cognitive difference between the virtuous and the continent is to show (a) that it is plausible for something to be valuable yet be void of motivational force, and (b) that this possibility is precisely what marks the difference between continence and virtue. Concerning (a), I argued that the plausibility in question can be supported by an account of silencing that sees values as being important in two different manners: they can be important independently of the context and dependently of the context (NE 1110a10-15), which is not so controversial. Crucially, they can be important both independently and dependently of the context, at the same time and with two different degrees of motivational strengths, which is the controversial part. From Aristotle we know that continence is the condition of those who have self-control, and that in the continent action is the result of somewhat deficient deliberation, as opposed to the excellent one of the virtuous; what we need to discover is whether Aristotle's account of deliberation can be compatible with the cognitive picture we have just sketched, that is, that virtuous deliberation is both automatically motivating and allows for context-related regret (virtuous "silencing"), while continent deliberation is characterised by a somewhat deficient motivational element and, thus, allows for action-related regret. If I manage to support this latter point, then I shall have also found the proper support to (b).

4. *Deliberation: the "why" and the "how"*

We noted that McDowell's view might not be compatible with Aristotle when it comes to deliberation: for silencing to be the mark of virtue it has to be automatically motivating, which sounds like arguing that the virtuous person is rarely in the situation of rationally deliberating over what course of action she should pursue. On the other hand, Aristotle explains virtue in terms of excellent deliberation (the *phronimos* is one who deliberates well; NE 1140a25; 1141b10) and understands deliberation as the process of calculation (NE1139a5-15) that involves both reason and thought (NE1112a15). All this he calls *prohairesis*, which is what ultimately issues virtuous action (NE1105a28-33; 1113b1-14; Broadie 1991). He also states that the object of deliberation is not an end, but what brings one to the end (NE1112b12) and such object of deliberation takes the form of a deliberative desire (NE1113a5-10). In other words, it is as if we somehow "assumed" the end and had to deliberate over the means to achieve it, just like the mathematician assumes a specific postulate in order to draw rational conclusions (Broadie 1991: 233). If this metaphor holds, then our ethical assumptions would be specific too; that is, they would be a specification of what a life worth living means to us. Thus, McDowell's argument for the difference in moral outlooks might also be read as a a difference in terms of ethical assumptions when it comes to virtue and continence: if I am continent, then my ethical assumption might be way too general for it to be reliably motivating in a way that would avoid inner struggle. For example, if I assume that "I must do the virtuous thing", then my deliberation would need to consider what the virtuous thing to do might be, then operate my self-control in order to bring myself to do it notwithstanding the temptations. Temptations that, arguably, might be present precisely due to the overly general formulation of my ethical assumption which loses part of its motivational force the moment I have to remind myself of the "why" I must bring it about.[8] On the other hand, we might imagine the virtuous lawyer's ethical assumption in relation to *eudaimonia*, that is, to the conception of a life worth living: for example, "a life worth living is one in which I am *not* corrupted". If this is so, then virtuous deliberation might not come about automatically when it comes to clashing moral values (family and justice); however, it would automatically rule out certain courses of action, which is what does not happen to the continent.

This distinction between conceiving of the end and of the means is crucial, for virtue needs both moral excellence to form the proper end (*skopos*) and intelligence to get the means right in order to achieve it (NE1144a7-9). Excellent deliberation will thus be what allows one to reach the virtuous end (NE1142b33; 1144b15; Broadie 1991: 243) which, as we said, is both arrived at and assumed. That is to say, that the virtuous person is one who has reached the conclusion that a certain end is to be assumed, and then assumes it when it comes to bringing it about. That is not to say that the virtuous person finds automatic motivation in seeing *how* to bring virtue about, but rather in the very option of bringing it about (the "why"). This is the inner harmony that we encountered in section 1 and that seemed a good candidate for conceiving of the difference between virtue and continence. Now we have the tools to draw a comprehensive

[8] There is a sense in which how we think of virtue counts towards our moral outlook. Broadie (1991) argues that if we idealize virtue, then our deliberations would be somewhat naïf and our actions, consequently, either *akratic* (against what we though as the right thing to do) or *enkratic* (a struggle to finally act in accordance with what we though as the right thing to do: 241). I believe this to mean something similar to what I am arguing: if our assumptions are clear specifications of what a life worth living means to us, then the "why" is already present when they function as premises to our deliberation. This is not to say that they cannot be reasoned over, but that if they take the form of deliberative volitions, then we do not encounter a lack of motivation when it comes to enact them (*akrasia*), nor an inner struggle between virtue and temptations (*enkrateia*).

sketch of the virtuous persons' cognition: the virtuous agent has arrived to her ends through *phroairesis*, thus construing her moral outlook, and her actions are expressions of such moral outlook (Finnigan 2014: 689). That is, she represents situations accordingly (section 2). Moreover, her virtuous representations automatically exclude certain courses of action (silencing effect) and if there are particular moral values that fall in the excluded area, they become a reason to regret the situation she had to face ("weak" silencing effect; section 3), but not her pursuing of virtue, because acting on such values *is not an option* for her. This is not to say that the virtuous lawyer automatically forsakes the well-being of his family to pursue justice, while the continent lawyer understandably takes his time to consider his options. What this is to say is, rather, that the virtuous lawyer already knows that his goal is (and desires) to live a life in which he is not corrupted, thus does not need to deliberate over the end, while the continent does. Virtuous deliberation is about the "how"; continent deliberation, on the other hand, needs to deliberate also about the "why".[9] Thus, it is conceivable that the virtuous person needs to deliberate over how to avoid corruption when the well-being of his family is present in his mind and heart. It is not possible, though, for him not to assume his virtuous moral outlook; he will necessarily represent the situation as one in which corruption is not an option and, thus, will not see any reason to be corrupted as motivating enough for him to act in that direction. This is compatible with Aristotle's account of virtuous deliberation which is not "automatic" in the sense that does not need to be reasoned about, but is rather "spontaneous",[10] where our endorsed ends "are assumed to constrain the deliberative process to such a specified extent that they afford a single, unique possibility for action in view of a certain circumstance" (Finnigan 2014: 695); that is, they provide the virtuous option only.

Conclusion

I argued that virtuous person has a moral outlook that excludes non-virtuous courses of action, much like Aristotle's ethical assumptions (Vigani 2019; section 2); but since for something to be valuable does not imply its being intrinsi-

[9] NE 1112b10-20: a doctor does not need to deliberate over whether to heal her patients, nor a public speaker needs to decide whether to persuade the audience or not. In the same way, the virtuous person does not need to decide whether to be virtuous, but how to be so, and she will do so assuming a virtuous moral outlook on the situation.

[10] NE 1115b15-20: in spontaneous virtuous action passions play a significant role in favour of virtue, because virtuous passions are not like the continent's bodily appetites (Leighton 1988). This goes to support the argument for the harmony between reason and affective states, where virtuous emotions do not take the shape of temptations but, rather, of confirmations of the ultimate value of one's own moral outlook.

cally reason-giving (Dancy 1981, 2004; section 3), then it must be true that reasons can be silenced while their correlated values are still present. This might sound like arguing that virtue implies a life of sorrow, where the virtuous person is constantly driven towards the right thing to do while passively suffering for all she has to forsake. However, the virtuous moral outlook takes the form of a deliberative desire (NE 1113a10-15), where what is silenced is not present as a practical option (or it is void of motivational force, in McDowell's terms). Thus, being virtuous means that what is valuable remains valuable without opening a non-virtuous option; this is why there is no struggle when it comes to deliberating whether to act virtuously, nor regret for having done so. What the continent is still missing is precisely this excellence of character that allows for contemplating something, both rationally and affectively, without it counting against virtue.

Matilde Liberti
University of Genoa,
FINO (Northwestern Italian Philosophy Consortium) PhD Program
libertimatilde@yahoo.it

References

Aristotele, 1999, *Etica Nicomachea*, It. tr. Natali Carlo (a cura di), Edizioni Laterza, Bari.

Baxley, Anne Margaret, 2007, "The Price of Virtue", in *Pacific Philosophical Quarterly*, 88: 403-423. URL: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-0114.2007.00300.x

Broadie, Sarah, 1991, *Ethics With Aristotle*, Oxford University Press, New York.

Broadie, Sarah, 2009, "*Akrasia*, *enkrateia*, and Look-alikes" in *Aristotle: Nicomachean Ethics, Book VII Symposium Aristotelicum*, Carlo Natali (ed), Oxford University Press, New York, pp. 157-172.

Cashen, Matthew C., 2016, "Aristotle on external Goods: Applying the *Politics* to the *Nicomachean Ethics*", in *History of Philosophy Quarterly*, 33, 4: 293-303. URL: https://www.jstor.org/stable/44984429

Corns, Jennifer; Cowan, Robert, 2021, "Moral Motivation and the Affective Appeal", in «Philos Stud», 178: 71-94. DOI: https://doi.org/10.1007/s11098-020-01421-2

Dancy, Jonathan, 1981, "On Moral Properties", in *Mind*, 90, 359: 367-385. URL: https://www.jstor.org/stable/2253092

Dancy, Jonathan, 2004, *Ethics Without Principles*, Oxford University Press, New York.

Dancy, Jonathan, 2014, "Intuition and Emotion", in *Ethics*, 124, 4: 787-812. URL: https://www.jstor.org/stable/10.1086/675879

Doris, John M., 1998, "Persons, Situations, and Virtue Ethics", in *Noûs*, 32, 4: 504-530. URL: https://www.jstor.org/stable/2671873

Finnigan, Bronwyn, 2014, "*Phronesis* in Aristotle: Reconciling Deliberation with Spontaneity", in *Philosophy and Phenomenological Research*, 91, 3: 674-697. DOI: https://doi.org/10.1111/phpr.12126

Harman, Gilbert, 2000, "The Nonexistence of Character Traits", in *Proceedings of the Aristotelian Society*, 100: 223-226. URL: https://www.jstor.org/stable/4545327.

Kristjánsson, Kristján, 2007, *Aristotle, Emotions and Education*, Ashgate E-Book: Ashgate Publishing Ltd.

Kristjánsson, Kristján, 2010, "Educating Moral Emotions or Moral Selves: A false dichotomy?", in *Educational Philosophy and Theory*, 42, 4. DOI: 10.1111/j.1469-5812.2008.00489.x

Kristjánsson, Kristján, 2013, "Aristotelian motivational externalism", in «Philos Stud» 164: 419-442. DOI: 10.1007/s11098-012-9863-1

Kristjánsson, Kristján, 2018, *Virtuous Emotions*, Oxford University Press, Oxford.

Leighton, Stephen R., 1988, "Aristotle's Courageous Passions", in *Phronesis* 33, 1: 76-99. URL: https://www.jstor.org/stable/4182294

McDowell, John, 1978, "Are Moral Requirements Hypothetical Imperatives?", in *Proceedings of the Aristotelian Society*, 52: 13-42. URL: https://www.jstor.org/stable/4106788

McDowell, John, 1998, *Mind, Value, and Reality*, Harvard University Press, Cambridge.

Mele, Alfrd R., 1985, "Aristotle on Akrasia, Eudaimonia, and the Psychology of Action", in *History of Philosophy Quarterly* 2, 4: 375-393. URL: https://www.jstor.org/stable/27743740

Mele, Alfred R., 1992, "Akrasia, Self-Control, and Second-Order Desires", in «Noûs», 26, 3: 281-302. URL: http://www.jstor.com/stable/2215955

Mele, Alfred R., 2011, "Self-control in Action", in Shaun Gallagher (ed.), *Oxford Handbook of the Self*, Oxford University Press.

Merritt, Maria, John Doris, Gilbert Harman, 2010, "Character", in *The Moral Psychology Handbook*, Doris, John *et al* (ed), Oxford University Press, New York: 355-401.

Peters, Julia, 2015, "On Automaticity as a Constituent of Virtue", in *Ethical Theory and Moral Practice*, 18: 165-175.

Santas, Gerasimos, 1969, "Aristotle on Practical Inference, the Explanation of Action, and Akrasia", in «Phronesis», 14, 2: 162-189. URL: https://www.jstor.org/stable/4181834

Siedman, Jeffrey, 2005, "Two Sides of Silencing", in *The Philosophical Quarterly*, 55, 218: 68-77.

Stoyles, Byron J., 2007, "Aristotle, Akrasia, and the Place of Desire in Moral Reasoning", in *Ethical Theory and Moral Practice*, 10, 2: 195-207. URL: https://www.jstor.org/stable/40602523

Tieleman, Teun, 2009, "(In)continence in Context", in *Aristotle: Nicomachean Ethics, Book VII Symposium Aristotelicum*, Carlo Natali (ed), Oxford University Press, New York, pp. 173-182.

Toner, Christopher, 2003, "*Akrasia* Revisited: An Interpretation and Defense of Aristotle", in *The Southern Journal of Philosophy*, 41, 2: 283-306.

Vigani, Denise, 2019, "Virtuous Construal: In Defense of Silencing", in *Journal of the American Philosophical Association,* 5, 2: 229-245.

On What Makes a Social Group a Group Agent

Giulia Lasagni

1. *Introduction*

When we say that our favorite soccer team has won a match, that the Parliament has passed a law or that a business company will invest in a fund, we are (more or less knowingly) treating social groups as agents. Thriving philosophical disputes between reductionists and realists revolve around the question: to what do the statements about group agency actually refer? Reductionists maintain that our ordinary language is purely metaphorical, as there is nothing in the social world over and above the individuals in relationships (Miller 1992; Bratman 2014; Ludwig 2017a). By contrast, realists find there is something right about the way we talk, as the case of group agency is indeed too complex to be reduced to any form of interaction among the members (French 1979; Gilbert 1989; List and Pettit 2011; Hindriks 2013; Hess 2020).

With this simplistic but functional distinction in the background,[1] the present article raises a crosscutting, but lightly debated, issue. The focal question asks what exactly is it (if anything) that makes a social group capable of action? I will suggest that if something can play that role, it must encompass the group's ontological structure.[2]

The account embarks on a novel investigation. Outlining a structuralist approach to group agency requires us to bridge the gap between studies primarily focused on whether and how a social group can be an agent and purely meta-

[1] There are indeed non-reductive positions in the debate that refer to group agents and actions without being strictly realistic about their existence. Tuomela, for example, has built a theoretical framework for group agency, which wavers between realism and reductionism. If from the point of view of the explanation Tuomela recognized the importance of describing group agents and actions as complex, high-level phenomena, underpinned by specific *we-mode* attitudes in the mind of the participants, ontologically speaking he seems rather inclined to consider group agents as *fictitious* entities, somehow reducible to their members (Tuomela 2013, pp. 232-36).

[2] In these pages, *ontology* refers to the study of existing entities, whereas *metaphysics* concerns the study of the nature of those things.

philinq X, 2-2022, pp. 59-81 Submitted: 5 October 2021
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.379 Accepted: 31 January 2022

physical research to ask: what kind of entity is a social group? And by what feature can be classified in that way? Some discussions in both debates suggest that this bridge is already under construction.

On the one hand, in the literature on group agency, some scholars hold that the ability of a social group to act depends precisely on whether the group has an internal organization such that the members can develop unified plans of action and execute those intentions by acting as a whole. List and Pettit (2011) have devoted a pivotal monograph centered on the design of social groups, its implications for what groups can do, and what normative status they can bear. As a development of that account, Hess (2020) proposes focusing on multiple internal organization models, not limited to the decision-making mechanism examined by List and Pettit. Along these lines, Tuomela (1995, 2013) has referred to organized collectives in terms of task-right systems with fixed positions and replaceable members. Moreover, Hindriks (2008) insists on the difference between actions that a group can do based on its internal organization and actions that also depend on the group's normative status. Thus, although theories of group agency do not directly discuss the metaphysical structure of social groups, they do refer to their internal organization as enabling certain properties and capacities.

On the other hand, recent studies in social metaphysics focus on the nature of social groups as social objects comprised of members. The claim that social structures should play some role in the definition of social groups is defended by authors such as Sheehy (2006), Urfalino (2017), Ritchie (2013, 2015, 2018), Strohmaier (2018), Uzquiano (2018), Fine (2020), Harris (2020), and Passinsky (2021), who argue that: insofar as social groups are structured wholes, they cannot be described as either sets or extensional mereological fusions.[3] For these accounts, which are to some extent sympathetic to a neo-Aristotelian conception of entities, social groups are made of form and matter, i.e., structural relationships and members. Structure, however, is not explicitly associated with the agentive properties enabled in social groups through such patterns of inter-member relations.

Brian Epstein's work deserves a special mention here because it contributes to both of the debates. Principally interested in social metaphysics, Epstein argues that to delve into the problem of group agency, it is worth considering

[3] On the limits of extensional mereological accounts of social groups, see Ruben (1983). For a defense of non-extensional mereology, see Hawley (2017) and Strohmaier (2018). A refined version of setism is advanced by Effingham (2010) and criticized by Uzquiano (2004), who proposes an account of groups as *unfamiliar entities* that – unlike sets – survive fluctuations in members. A reductive perspective, which departs from both mereology and set theory, is the plurality view offered by Horden and López de Sa (2020). The account holds groups to be identical to the plurality of the members.

what kinds of social groups can act and on what grounds action is possible (2015, pp. 217-35; 2017, pp. 24-26).[4]

In this paper, I investigate what enables organized social groups to act by combining the study of group agency with a structuralist approach in social metaphysics.[5] Assuming that any theory of group agency must be able to explain the grounds of group action, structure-based metaphysics offers a promising account. I will contend that, in this view, the grounds of group agency include the ontological structure of social groups, which contributes to determining what agentive properties each group can bear.[6] I will argue that acknowledging the grounding role of structure for agency means advancing an argument against reducing the explanation of group agency to accounts that only consider members' intentions and actions. Moreover, I will argue that group structure may depend, according to the case, either on internal factors – such as shared attitudes and agreements among the members – or on external factors – such as social norms and practices. The ontological dependence on heterogeneous factors will reveal that social groups and their agentive properties are not just mental phenomena but worldly entities and properties, deeply embedded in the social context.

The paper is divided into three sections: Section **2** outlines a structuralist approach in social metaphysics leaning on Katherine Ritchie's view that social groups are structured wholes (Ritchie 2013, 2015, 2018). Then, section **3** asks whether the account might be compatible with the idea that some organized social groups can be agents. Here, I propose an integration with the functionalist

[4] It is important to note that Epstein does not propose a hylomorphic approach to social groups as do the authors mentioned above, whose view is close to neo-Aristotelianism. Epstein, in fact, presents a constitution view for which social groups are constituted or grounded by heterogeneous factors. The way in which members are related can be understood (whenever this characterization is appropriate) as an extra-essential property. However, the relational pattern is not part of the ontological construction of the social group: On Epstein's account, groups are materially constituted by members, not by relationships. See Epstein (2017, pp. 9–23). While leaning on Epstein's work on groundings, the discussion I propose in this article about the ontology of groups is closer to the neo-Aristotelian, structure-based metaphysics. I will present social groups as being structures realized by individuals. Structures – I will contend – are grounded in social factors.

[5] Structuralism has wide application in philosophy. For example, in the philosophy of mathematics and physics, the reality of unobservable entities has been approached through a structuralist framework centered on a form realism (either metaphysical or epistemological) about structures (Worrall 1989; Shapiro 1997; Ladyman 1998; Kincaid 2008). In the social sciences, structuralism is at the core of Elder-Vass' emergentist ontology (2007), inspired by Bhaskar's scientific realism (1978), Giddens' interactionism (1984), and Archer's morphogenetic approach (1995).

[6] By "agentive properties" I mean forms of agency that can be both abilities (e.g., moving obstacles) and enactments of normative functions (e.g., issuing certificates). I suggest that, insofar as agentive properties depend on the metaphysical structure of groups, they are essential properties, see §3.

conception of agency proposed by List and Pettit (2011). I will argue that structuralism can help to explicate the metaphysical foundations of group agency and frame the difference between intrinsic and extrinsic agentive properties. The intrinsic-extrinsic distinction is not captured by List and Pettit's account. To show the strengths of a structured-based approach to group agency, section 4 illustrates and discusses three scenarios: For each scenario, we will examine the agentive properties of the group – i.e., a committee – in relation to the social factors that ground the group's structure. To conclude, I suggest that (at least some of) the agentive properties of organized social groups are not fully captured by theories of agency that are primarily focused on the group's internal design and rational unity. If the argument is convincing, structuralism offers a helpful scheme for vindicating the realist view on group agency, enhancing the account through the distinction between intrinsic and extrinsic agentive properties and offering a non-reductive perspective that considers social groups as concrete, deep-rooted components of the social world.

2. *Social structures*

The structuralist approach to group agency endorsed in this paper applies the notion of social groups proposed by Ritchie (Ritchie 2013, 2015, 2018), who argues that 'social structures are central to the nature of all social groups' (Ritchie 2018, p. 1). This account's strength is that it studies social structures based on how they are constituted by social factors. This distinguishes between cases in which the group's structure only depends on factors internal to the group and cases in which it depends (at least in part) on external social factors.

2.1. A general definition of "structure"

According to Ritchie's structuralism, social groups are instantiations of structures that have a social nature. In general, structures are "complexes, networks, or "latticeworks" of relations" (Ritchie 2018, p. 4) and can be represented as graphs formed of nodes and edges. Nodes are places occupied by entities (node occupiers), whereas edges represent relations between nodes and define their function within the whole structure. To give an example, we might consider the structure of a baseball team, which includes, among others, the node labeled *pitcher* and the node labeled *catcher*. On one side, the *pitcher's* function is defined by its pitch-ball-to relation to the *catcher* (Ritchie 2013, p. 268). On the other side, the *catcher* is related to the *pitcher* by the return-ball-to relation, which also defines the functional relation between the *catcher* and the *pitcher*.[7] The definition of nodes might also depend on eventual (possibly null) constraints on the node occupier, fixing the number, the type, and the powers of the occupier. For instance, the molecular formula (structure) of water, H_2O, determines that the structure has three nodes: one node occupier must be an oxygen atom, whereas two occupiers have to be hydrogen atoms.

As exemplified by the H_2O case, not all structures are social structures. Given that this paper concerns social groups, I will concentrate exclusively on the case of social structures. In Ritchie's view, for a structure to be social, it has to constitutively depend on social factors, including – at least – social behavior, patterns of interaction, habits, beliefs, intentions, processes, practices, rules, norms, and agreements.[8] Those aspects of the social environment can be relevant to the constitution of a social structure, as they provide the context within which a certain latticework of relations can arise.

Fundamental to the existence of social structures, the constitutive relation between social factors and social structures is a complex form of dependence that covers phenomena of conceptual priority, metaphysical necessity, and grounding relations. Ritchie proposes the following definition of constitutive dependence:

Structure, S, constitutively depends on social factors just in case
(i) in defining what it is to be S reference must be made to some social factors or
(ii) social factors are metaphysically necessary for S to exist or
(iii) social factors ground the existence of S (or the fact that S exists) (Ritchie 2018, p. 6).

Based on this, the relation between some social factors and a social structure is a kind constitutive relation so long as at least one of the three disjunctions applies to it.[9]

This notion of constitution helps to distinguish social structures from other kinds of structures. For example, the structure of water, blood, and fire is not social because it is not related to social factors in any significant way. Other cases do not appear to be so clearly separated from social influences; even if some structures are not constituted by social factors, they could still depend on

[7] Pitch-ball-to and return-ball-to are both asymmetrical and non-hierarchical relations. Edges can also be symmetrical (being twins) or hierarchical (relationships of authority).

[8] In acknowledging that Ritchie does not provide any definition of what social factors could be, I will use the notion as she does, that is, in a general way. In Ritchie's 2018, there are two lists of items that can be considered social factors: "social behavior, patterns of action, habits, beliefs, intentions, processes, practices, activities, rules, laws, norms, and arrangements" (p. 3); "social practices, patterns of interaction, agreements, beliefs, and so on" (p. 15).

[9] Ritchie's notion of constitution is inspired by Haslanger's definition of constitutive social construction of social facts (Haslanger 2003, pp. 317-8).

social factors in a causal way. For example, if I forget an old lamp on my balcony, it will start rusting. In this sense, my action is a (social) factor that (partially) causes the formation of rust, which is not social in itself (Ritchie 2018).

2.2. Social structures constitutively depend on social factors

Structures in general, and social structures in particular, can be viewed as (universal) patterns that can be actualized by different systems of entities (node occupiers) (Ritchie 2018, p. 5).[10] Social structures specifically constitutively depend on social factors, which can be either internal or external to the system of entities that, in world *w* at time *t*, realizes some particular arrangements of nodes and edges.[11] A social factor is internal if it concerns or coincides with (some of) the entities instantiating a certain social structure; whereas, a social factor is external if it does not concern or coincide with (some of) the entities instantiating the structure, either partially or fully.

Let us consider the case of a group of street musicians who start playing together spontaneously, just by coordinating the performance and harmonizing the sound (cf. Epstein 2017). As the musicians stop playing, the group dissolves. No matter how fleeting, the group has a structure that modulates the activity of each musician because of the activity of the others (*x* plays rhythmic parts, *y* plays the melody, *z* sings). The structure is social because it depends on social factors such as intentions, patterns of behavior, and coordination among the members. Because all these social factors regard the group's members, they count as internal to the system, so the group's structure has internal grounding conditions.

A different kind of case is presented by analyzing groups like the Supreme Court (cf. Uzquiano 2004; Epstein 2015, pp. 222-24; Ritchie 2018, pp. 11-12,): It can be described as a social group made up of nine members who occupy the nodes of a structure, in which one member is the chief justice, and the other

[10] In this paper, I use the notion of system meaning a set of individuals in relationship. On this, I lean on Shapiro's contribution to the philosophy of mathematics where he defines a system to be 'a collection of objects with certain relations' (Shapiro 1997, p. 73). Shapiro then maintains that a structure is the abstract form or patter of relations that can be exemplified by many different systems (cf., p. 77). Such multiple realizability of the pattern is also found in Ritchie's conception of structure.

[11] The realization of a structure confronts us with (at least) two different meanings of *constitution*. First, the notion might refer to coincidence without identity, a view paradigmatically exemplified by the case of the marble statue (Baker 2000). Second, constitution might address the constitutive dependence holding between social factors and social structures, in which the constituting elements did not count as node occupiers but provide the context within which a certain social structure could exist (Hindriks 2013). This is the meaning at issue within Ritchie's theory. Building on Ritchie's definition, I will refer to this meaning of *constitution* especially as a grounding relation. We might instead refer to the former meaning in terms of material constitution.

eight are associate justices. The structure of the Court can easily be viewed as a social structure because it constitutively depends on a set of social factors, including the third Article of the Constitution, some specific declarations of the Congress, and other institutional facts. As these institutions are not part of the group – i.e., they are not node occupiers – we can infer that part of the Supreme Court's foundational structure are external to the group itself.

Ritchie's metaphysical perspective leads us to see that the ontological structure of a given object might depend on either internal or external social factors. Although the following discussion departs from the scope of Ritchie's proposal, it is important here to anticipate that the internal-external distinction will prove relevant in dealing with the issue of group agency. In more detail, I will talk about group agency in terms of agentive properties (Section 3): specific forms of agency (e.g., making a decision, organizing a party, playing a symphony), each having its own conditions of instantiation. Thus, I will maintain that when we ask what turns a social group into an agent, we want to know exactly what aspects in the ontology of the group allow it to meet the requirements of the agentive property at stake. More precisely, I argue that distinguishing between internal and external social factors will present the possibility for recognizing two kinds of properties: intrinsic, when enabled by structures that fully depend on internal social factors, and extrinsic, when enabled by structures that fully or partially depend on external social factors. Provided that each kind of property relates to the metaphysics of groups, I will treat both as essential proprieties.

2.3. The social structure of organized social groups

To address the problem of group agency and distinguish between intrinsic and extrinsic agentive properties, we should narrow our focus from the general notion of social structure to the structure of organized social groups such as committees, soccer teams, corporations, and universities.[12] The choice to exclusively consider organized social groups is not random but instead prompted by the fact that these groups are generally thought of as group agents. As mentioned in the introduction and further developed in Section 3, the standard account of group agency holds that, for a group to be an agent, it must be organized in a way that meets the requirements of agency (List and Pettit 2011). So, groups that are not appropriately organized do not belong in this category. Examples of non-organized groups include social classes, gender, and ethnic groups.[13]

[12] In Ritchie's framework, organized social groups are classified as Type 1.

[13] Ritchie defines examples of this kind in terms of feature groups (Type 2), because the members are brought together by one (or more) shared feature(s). For some criticism on Ritchie's distinction

For a social structure to be the structure of an organized social group, "it must have people or social creatures as node occupiers" (Ritchie 2018, p. 10). Ritchie clarifies that people are human beings and social creatures are social groups. First, this definition implies that not all social structures are structures of social groups. Structures that constitutively depend on social factors and are realized by systems of entities – including elements other than people and social creatures – are not structures of this kind. An example of this distinction is the structure of the market, in which corporations and investors cover some nodes and others are filled by market indices, tendencies, and risk factors. Second, by including social creatures among the set of node occupiers, Ritchie suggests that some social groups can both be realizations of social structures and node occupiers of more expansive social complexes (such as soccer teams being part of a soccer league). Third, if the expression "social creatures" identifies social groups in general, then organized social groups are not the only ones that can work as node occupiers. Meaning that, for a social group to be part of an external social structure, it does not have to instantiate a social structure itself. Thus, unorganized groups can occupy positions of social structures even if groups of this sort are not built around any functional organization.

3. *Structure and agency*

The fact that some social groups are internally organized is crucial because the functionalist model of action theory that this article undertakes to implement holds that the internal design contributes to making certain systems capable of agency.[14] The task is to explain how metaphysical structuralism might support and strengthen such a functionalist perspective.

3.1. From structure to agency

In the literature on group agency, a prominent account maintains that, as long as a group intervenes in the social context based on reasons, the group can be defined as an agent (French 1979; List and Pettit 2011). This characterization of group agents especially applies to organized groups, in which a particular network of relations among the members secures the group's unity around any

between Type 1 and 2, see Epstein 2017, §1. Because in this paper I do not engage in discussing the classification of social groups but concentrate only on groups with an internal structural organization, I will leave the classification problem aside.

[14] Some authors have focused on the ability that a set of people might have to organize themselves into a group and thus solve a collective problem. In those cases, the ability to act as a group is mediated by the group-formation process (Collins 2019; List & Koenig-Archibugi 2010; Wringe 2019). Here, I focus exclusively on the agentive properties of group agents.

decision-making procedure (or corporate policy). If a group follows the procedure, then the complex of reasons it adopts constitutes the rational point of view of the group.[15]

This account of group agency embraces a minimal concept of being an agent, according to which an agent is a system that fulfills some basic requirements, such as (1) being receptive to the inputs from the environment, (2) processing/accommodating those inputs, and (3) intervening in the environment based on (1) and (2).[16] Here, *system* means any set of units related in a certain way, such as, the set of interrelated mechanical components in a robotic device. In the case of social groups, a *system* refers to any set of individuals or social creatures realizing some specific pattern of relationships.[17]

On this basis, one can also say that agency is a property possessed by any social group that somehow fulfills a list of basic requirements. For instance, if a

[15] From then on, I will refer to this account as the standard account of group agency. This theory is mainly concerned with functional organizations centered on decision-making mechanisms. I will not discuss other kinds of organization such as the division of labor among the parties (Hess 2014; Bird 2015; Theiner 2018). Yet, I find the structuralist model could also apply to organized social groups in which the ability to act is based on different ways to achieve cohesion.

[16] The list of requirements relies on List and Pettit (2011, p. 20). In this article, I restrict the discussion to List and Pettit's theory of group agency as it is one of the most articulated, non-reductive perspectives on the matter. However, my proposal can also be applied to other non-reductive approaches: French (1979), for example, addressed group agency by arguing that group agents can act as single subjects by virtue of an established corporate policy. Similarly, Rovane (1998, 2019) explained that an agent is defined by having a coherent and consistent rational perspective – every agent is a single subject, unified by that rational viewpoint, regardless of whether it is held by a human being or a multiplicity of them. On a different line of thought, Tollefsen has offered a form of interpretivism which regarded our practice of making sense of group agents as an extension of our practice of making sense of individuals as subjects of dispositional attitudes. Tollefsen maintained that 'if our taking the intentional stance toward a group allows us usefully to understand the group's actions, then we have every reason to believe our assumptions of rationality are justified and that we are dealing with intentional agents' (Tollefsen 2015, 111). It can be observed that it is a shared point among these and other non-reductive theories of group agency to focus primarily on the functioning of groups and group concepts rather than on the group's metaphysical nature. My precise attempt is to assess the gain that non-reductive theories of group agency would have if they combined the analysis of agency with a non-reductive, structured-based metaphysics. It is important to specify that a combination with metaphysical structuralism would be inappropriate for cases like Tuomela's and Ludwig's for which group agents and actions are considered ontologically reducible to individuals and individual actions, respectively (Ludwig 2017a, Tuomela 2013). With this, I am not claiming that only non-reductive perspectives on group agency allow the connection between theories of agency and metaphysics; I just assume that reductionism regarding group agency is best combined with some form of metaphysical reductionism such as those offered by set theory and mereology. In fact, on those accounts, social groups are found reducible to their members. Hence, groups are not counted as single entities. This is consistent with the claim that groups cannot be single agents. About the subject of group agency and the question of singularism in social ontology, see Pettit and Schweikard (2006).

[17] On the meaning of *system*, see footnote 10.

committee is organized to meet the conditions of the functional property *make-decision*, and if the group has people as node occupiers, then the social group is an agent capable of making a decision based on its structure and through the activity of the members. The property *make-decision* is functional because its realization is not tied to any system in particular, so that two heterogeneous systems, such as my friend Jessica and a prize committee, can both decide the winner of a contest. Still, how Jessica and the prize committee fulfill this function might be different and system specific. Although a unique characterization of agency is extremely helpful in addressing the general phenomenon, it still might fail to capture relevant traits carried by particular forms of agency and by the systems realizing them. Therefore, it might be worthwhile re-thinking the notion of agency in terms of *agentive properties*.[18]

Just as the standard account defines agents as systems that meet a list of basic requirements, we might say that agentive properties are functional properties that necessitate specific conditions of instantiation. When a system satisfies the requirements of a particular agentive property, then the system has that property (and it is an agent). Because the bearer of any agentive property is (by definition) an agent, one might take agentive properties to be (a class of) powers.

The definition of powers and its relation to the notions of dispositions and abilities is currently much debated; it goes beyond the scope of this article to explore the matter with the attention it would deserve (Maier 2018; Collins 2019; Vetter 2019). In general terms, powers are a kind of disposition that pertains to agents and can refer either to actions (e.g., speaking a language) or to passive capacities (e.g., understanding that language). Powers of the former kind are abilities, and, in so far as agentive properties relate agentive systems to the performance of specific functions, they can be defined as such. In this sense, an agentive property is the ability of a system to perform a certain function. For example, the agentive property *make-decision* is the ability of a system to satisfy the function "making a decision". It is worth noting that "making a decision" is a teleological function, as its performance aims to achieve the goal of becoming firm about an issue. Functions of this kind include targeted actions such as making toast, painting a wall, searching for treasure, and so forth. Differently, some other functions might be normative and refer to the deontic powers of systems: Let us consider the case of a police officer who wants to stop a motor-

[18] The notion of agentive property is different from Searle's *agentive function*, which indicates the function of objects in relation to the interests of agents. Examples of objects with agentive functions are chairs, paperweights, and screwdrivers (Searle 1995). As opposed to this, agentive properties are properties of agents that make them able to make use of the agentive functions ascribed to the objects. For example, if a stone has the agentive function of holding down paper, I – as an agent – have the agentive property to use it as a paperweight.

ist for speeding. On one hand, if all conditions are met, the officer's agentive property *raise-arm* can count as the officer's ability to perform a teleological function aimed at raising the arm. On the other hand, the subject of the property *raise-arm* is an individual who – as a police officer – can stop drivers for excessive speed by raising his arm. The status *being a police officer* makes the performance of the agentive property *raise-arm* count as the performance of the agentive property *stop-car*.[19] Such a power relates the agent to an action that is not (just) the achievement of a goal, but the enactment of a duty ascribed to the agent from the outside. Other examples of normative functions performed through action are issuing certificates, acting as a spokesperson, imposing fees, and refereeing a game.[20] Accordingly, the following characterization of agentive properties might serve as a general definition:

Agentive property. The agentive property *p* is the ability of a system *s* to perform function *f* in world *w* at time *t*. *F* can be either teleological or normative.

The definition allows us to capture different forms of agency and analyze the specific conditions that allow certain systems to have agency. Moreover, breaking down the agency of a system into a set of agentive properties may also help us understand how different agentive properties relate to one another.

3.2. On group agency

Questioning whether social groups can act is undoubtedly far from Ritchie's original project, which is specifically concerned with the metaphysics of social groups, not considering – at least, not directly – the possibility of group agency. Indeed, it is not necessary to raise an issue about the additional properties of social structures to define groups in terms of social structures. Nonetheless, I claim that by holding Ritchie's view, some form of realism about group agency is plausible for the following reasons: First, Ritchie's examples of organized social groups are typical cases of group agents (Supreme Court, House of Commons, and baseball teams). Second, she explicitly mentions List and Pettit's realism about group agency without any criticism (Ritchie 2015, p. 312), as she agrees with the idea that "group agents display patterns of collective behavior that will be lost on us if we keep our gaze fixed on the individual level" (List and Pettit

[19] With a reference to Goldman (1970), we might consider the production of the act *stop-car* as a form of *conventional generation*, since it is in virtue of social conventions, norms, and practices that the performance of the police officer's property *raise-arm* stands for the realization of the property *stop-car*.

[20] Bearing a normative function is not necessarily a synonym for being agents. For example, a piece of paper has a normative function when it counts as money in context C (Searle 2010). The status function of money does not make money an agent.

2011, p. 6). Third, Ritchie claims that the structure of organized social groups captures their functional organization (Ritchie 2015, p. 316). As no specification regarding the sort of function incorporated into the organization is provided, we might assume that the function of the structure can be agentive and that, as far as a social group realizes that function, it is an agent. As we observed in the case of the prize committee, the group can decide because it is organized in a way that it can receive information, process data, and make a decision based on those data and procedures. In other worlds, based on its functional organization, the group can meet the requirements of the property *make-decision* and thus function as a decision-maker.

Some might complain that this view does not add enough to the standard account of group agency, which is based precisely on the idea that social groups can act because they have an internal decision-making procedure and members allow its application. The analogy would only be true if the structuralist framework stopped at that level, concentrating almost exclusively on the description of the structural features regulating member-to-member interaction. But this is not the case for Ritchie's structure-based metaphysics; it characterizes social structures based on their constitutive dependence on social factors. Therefore, if a certain agentive property (*make-decision*) relies on a social structure (*decision-making procedure*), which constitutively depends on social factors (*agreement among the members*), one could fully understand the grounds of the agentive property in question only insofar as it relates to the social factors that ground the group's structure. To put it otherwise, a structuralist account helps us to argue that if the constitutive dependence on social factors determines the structure of an organized social group, those social factors also fix (at least some of) the structural features in virtue of which the system meets the requirements of an agentive property. Furthermore, so long as agentive properties depend on constitutive structural features, I suggest such properties are essential to the group.

As noted already, my point is that Ritchie's metaphysical perspective can be seen as compatible with a theory of group agency, even though this connection is not explicitly endorsed by her account. It is the task of this article to delineate such a development. In implementing the metaphysics of social groups, I have been working primarily on grounding relations. I have argued that this line of investigation is consistent with Ritchie's assumption that social structures constitutively depend on – and so are grounded in – social factors. The emphasis on grounding relations, though, is an aspect of my account for which I rely on Epstein's approach to social groups (Epstein 2015).[21]

[21] In this article, I am treating social groups as entities made up of individuals realizing patterns

On that basis, observing that the standard account of group agency does not give adequate weight to the social factors that ground the group's internal design is not the same as assuming that those factors are completely excluded. Indeed, the standard view acknowledges the role played by external influences in ascribing statuses and functions to groups. Still, the problem remains that if external factors are not studied as essential parts of the metaphysics of groups, it prevents the in-depth view allowed by structuralist metaphysics.

3.3. Intrinsic and extrinsic agentive properties

In the wake of the distinction between internal and external social factors, I propose that agentive properties can be either intrinsic or extrinsic to the system. On one side, if the structural features that allow a system to possess a particular agentive property constitutively depend on internal social factors, then the agentive property is intrinsic to the system:

Intrinsic agentive property. If a system s_x, in world w at time t, has the agentive property p_1, and if s_x meets the requirements of p_1 based on structural features that totally depend (in a constitutive way) on internal social factors, then p_1 is intrinsic to s_x.

To exemplify, we can return to the group of street musicians, who play together based on patterns of behavior that fully depend on the members' attitudes, abilities, and interactions. By virtue of its social structure, the group can play music, or – to say it otherwise – it bears the agentive property *play-music*. As far as the structure incorporates the function *play-music*, the social factors that ground the functional organization also determine the ability of the group to fulfill the function *play-music*. Assuming that, in this case, all social factors are internal to the system, we can define the agentive property *play-music* as an intrinsic property because it is enabled by structural features that are grounded on internal social factors.

Alternatively, if the requirements of an agentive property are met based on structural features that constitutively depend on external social factors, then the agentive property is an extrinsic agentive property of the system:

Extrinsic agentive property. If a system s_x, in world w at time t, has the agentive property p_2, and if s_x meets the requirements of p_2 based on structural features that fully or partially depend (in a constitutive way) on external social factors, then p_2 is extrinsic to s_x.

of relations. Such characterization is close to Ritchie's view and to neo-Aristotelian accounts in social metaphysics, while it differs from the way Epstein refers to groups. In fact, Epstein proposes a constitution-view for which the group's structure is not part of the ontological construction of the group. See footnote 4.

This is the case of the Supreme Court; the Supreme Court has a social structure that constitutively depends on external social factors such as the Third Article of the Constitution and declarations of Congress. Together with the social structure of the Supreme Court, those social factors determine some of its agentive properties, such as the property of deliberating about the case of an ambassador and deciding how to solve a controversy between the United States and a State in the USA. These agentive properties of the Supreme Court are based upon its structure, which is then realized through the activity of the members. As far as the structure constitutively depends on external social factors, the properties are extrinsic to the system.

The problem of the standard account is that it focuses primarily on the in-group organization and not on the social factors that ground such internal designs; the account cannot capture the essential nature of agentive properties, especially of the extrinsic ones. As a result, essential agentive properties would all be intrinsic.[22]

4. *Development and application of the model*

To appreciate the strength of structuralism as applied to group agency, in what follows, I consider the example of two social groups with similar internal functional organizations that still differ in their agentive properties, mainly because their organization is grounded on different social factors. The example aims to emphasize the specificity of intrinsic and extrinsic properties, state the essential nature of both kinds, and discuss to what extent the constitutive dependence on social factors might affect the agentive properties of groups. The proposed analysis is meant to be consistent with the standard account while refining the explanation of group agency across contexts and conditions.

4.1. Fake and real commissions

Consider the case of a photographic exhibition organized once a year by a museum. Among the invited artists, a young photographer also takes part in the event every year. A group of experts, which I call *real commission,* handles the selection. I will focus on the selection procedure and the set of agentive properties required to carry out the task:

[22] The standard account might accept that some organized social groups have extrinsic agentive properties as non-essential properties, deriving from social factors related to the social group through contextual (non-constitutive) relations. For example, the Supreme Court's property to decide the case of an ambassador would be counted as extrinsic and non-essential, deriving from the normative status attributed to the social group by other institutions that are external to the system of entities realizing the structure "Supreme Court".

Real commission. The museum decides the organizational structure, the powers, and the restrictions of the real commission. The museum appoints four experts in photography to the commission for the year and selects a spokesperson.

We assume that to select the winner the committee must bear the following agentive properties: (*a1*) making a decision, (*a2*) communicating the winner, (*a3*) performing *a2* on behalf of the museum.

This scenario resembles the case of the Supreme Court because the group's structure constitutively depends on an external authority. This means the real commission's structure is based on social factors that are external to the system of entities realizing the structure. Neglecting this step and merely considering the internal organization of the parties would make it difficult to distinguish the real commission from a fake one that possesses a similar internal structure but different relations to the environment. We can describe the case as follows:

Fake commission. A group of experts in photography agreed to form a committee and assess the successful candidate for fun. The members set up a decision-making mechanism for processing their personal competence through a single procedure and decide by a simple majority who must play the role of spokesperson.

Now, consider property *a1*: making a decision. Based on the functionalist model discussed so far, a system has an agentive property if and only if the system meets the requirements of that property. Therefore, in world w at time t, system s_x has the agentive property a_1 to make a decision, if s_x can (1) receive the necessary information from the environment, (2) process the information, and (3) make a decision based on (1) and (2). From the description of the two scenarios, we can observe that in both cases, the commission holds the information needed to assess the candidates, has a procedure for processing the information, and can make decisions according to the data and procedures. Differences emerge when the organizational structure of the two groups are identified, then we can begin the work of questioning which social factors provide each system with their respective organizational structures. The decision-making mechanism of the fake commission is grounded upon the agreement among the members, a_1 is intrinsic to the system. Opposed to this, when accounting for the real commission's decision-making ability, social factors about the members would be insufficient, as the real commission's constitutive dependence on a social structure generated by external social factors makes a_1 extrinsic to it.

Once it has been established that both commissions can bear property a_1, however differently, we might want to know whether they are suitable to meet the requirements of a_2: communicating the winner of the contest. In world w at time t, system s_x has the agentive property a_2 to communicate the winner of the contest if s_x can (4) have a decision about the winner to announce, (5) make an announcement, (6) communicate the decision based on (4) and (5).

As said, the real commission satisfies the first condition based on external social factors, the fake commission due to internal social factors. Regarding the second condition, a social group can issue a communication if its structure includes at least one node that functions as a spokesperson (Ludwig 2017a; 2018). From the description of the two scenarios, we know that both commissions include a spokesperson, but, once again, the requirement is fulfilled on different grounds: In the case of the real commission, a_2 is extrinsic because the spokesperson is determined by external social factors (instructions of the museum) that regulate the attribution of the role "spokesperson". In the case of the fake commission, the spokesperson is determined by a mechanism that entirely depends on internal social factors, as the members have established the procedure and processed the vote. This means that the requirements of a_2 are met by structural features grounded on internal social factors, making a_2 intrinsic to the fake commission. Given that in each case, a_2 depends on the ontological structure of the group, a_2 can be considered an essential property.

The fact that a committee can declare the winner is not enough for its speech act to count as an official declaration equivalent as a declaration from the museum. The task requires the commission to possess property a_3: performing a_2 on behalf of the museum.

As an implementation of property a_2, a_3 shares those same requirements in addition to the fact that the performance of a_2 can count as an official declaration. The social factor that makes a system fulfill this specific condition and turns its committee decision into a museum selection is the authorization given to it by the museum. This act of authorization equips the commission with the agentive property a_3, so that when the spokesperson announces the winner, she also speaks on behalf of the museum. This is exactly what happens in the first scenario where the museum has empowered the commission with the function of speaking in its name. As opposed to this, the fake commission does not have the agentive property a_3, since, based on internal mechanisms only, the group cannot acquire the normative status demanded by a_3 (Hindriks 2008). This is to say that the member who plays the role of spokesperson can speak on behalf of the fake commission, but they cannot act as a representative of the museum.

4.2. Extrinsic agentive properties acquired over time

The fact that, in the example, the real commission has essential extrinsic properties originally does not imply that constitutive relations of dependence on external social factors need to ground the group's structure right from the moment the group is formed. In fact, constitutive relations might happen later, as an implementation of the group's original social structure. If at time t_1 the social group g_1 has a structure based on internal factors only, it is likely that at time t_2 the group g_1 will also be constituted by some novel relation to external social factors. Thus, at time t_2, the group's structure will be based partly on internal factors and partly on external factors. As a result, at time t_2, some agentive properties of g_1 might depend on structural features already present at time t_1, while structural features acquired at time t_2 might activate new properties.

Consider the following mixed scenario:

*Real commission**. The museum finds the competence and the reliability of the fake commission so good, they authorize the group of experts to make a selection on their behalf.

Although real commission* has the same origin, organizational structure, and members as the fake commission, in this context the group becomes a real commission, entitled to announce – via the spokesperson's words – the winner of the competition on behalf of the museum. Real commission*, thus, bears a_1 and a_2 intrinsically and has a_3 extrinsically. Each of these properties is essential: While a_1 and a_2 are intrinsic and original, the group has acquired a_3 over time due to novel constitutive relations to external social factors.

It is worth mentioning that being externally grounded is not necessarily empowering, as external social factors might also work as an impediment. Consider the case of the agentive property a_4: Changing the member who counts as spokesperson. It might happen that, in each scenario, the person appointed as spokesperson proved to be so inadequate that the group's members unanimously agreed to select a different spokesperson. The real commission cannot hold the agentive property a_4, because the group's structure is bound to external constraints in a way that those constraints prevent the group from having the property a_4 based on internal social factors.[23] In contrast, within the fake and real* scenario, the collective intervention of the members can be accomplished because the structural features involved in the appointment of the spokesperson depends entirely on the collective attitudes of the members.

[23] The point can be viewed in two different ways. On one side, one could observe that external social factors preclude the possibility for the group to have the agentive property a_4. On the other side, it can be assumed that external factors establish, together with (positive) agentive properties, negative agentive properties, such as the impossibility of bearing a_4.

4.3. Three kinds of organized social groups

This example has proved that organized social groups can be classified into three kinds, depending on whether they realize social structures that:

(1) fully depend upon internal social factors,
(2) fully depend upon external social factors, or
(3) depend upon social factors of both kinds.

The first kind can be derived from the *fake commission* scenario: Because they have no external ground, organized social groups of this sort could only have essential agentive properties that are intrinsic to the group, i.e., grounded in internal social factors. The range of examples includes spontaneous groups like bands of street musicians, crews of street dancers, reading groups, etc.

The second kind concerns organized social groups with social structures grounded exclusively on external social factors. Organized social groups with an institutional status, such as courts, universities, and corporations fulfill these criteria here exemplified through the *real commission* scenario. Such groups only have extrinsic agentive properties, and because extrinsic properties rely on the ontological structure of such social groups, extrinsic agentive properties can count as essential, or so I have argued.[24]

Third, representing the mixed category, we might find organized social groups based on social structures that constitutively depend, partly, on internal social factors and partly on external social factors. Consider the *real commission** scenario: The social group has the ability to decide and select the winner as intrinsic agentive properties and the ability to announce the winner on behalf of the museum extrinsically. A generalization of the example leads us to include, in this kind, all organized social groups that did not originally have institutional status and instead acquired it over time. An example is provided by a reading group of university students, first organized on student initiative and later recognized by the institution as a seminar that gives credits to its participants.

[24] Characterizing the agentive properties of institutional organized social groups as extrinsic properties does not apply only to the ability to perform normative functions – such as issuing certificates, passing new decrees, and signing agreements – since being extrinsic also concerns properties related to the performance of teleological functions. In general, we can observe that, while intrinsic properties can only relate to the performance of teleological functions, extrinsic properties can include abilities related to both teleological and normative functions.

5. *Concluding remarks*

In these pages, I have argued that bridging the gap between the theory of group agency and the metaphysics of social groups allows us to provide fine-grained explanations of the agentive properties of groups. Compared to the standard account that centers the study of group agency mainly on the functional organization of the members, the metaphysical framework delineated so far offers a structuralist approach to group agency that clarifies the grounds of that internal design and conceptualizes the group's agentive properties either as intrinsic or extrinsic. As argued, this distinction is not accessible to the standard view because it aims to explain how the group functions without examining how it is constituted.

To buttress the argument, I would like to advance some brief considerations on the ontological status of the agentive properties of groups in relation to the properties of the members. This is meant to show how structuralism underpins realism about group agency.

Because extrinsic agentive properties necessarily require external groundings, proponents of structuralism might find it reasonable to infer that the extrinsic properties of a group are not reducible to the members' properties in relationships, as the possibility to bear these properties depends on external social factors.

Then, comes the difficult case of intrinsic properties: On one side, reductionists might claim that intrinsic agentive properties of social groups are derived from the properties of the parties. On the other side, realists might want to reject this form of reduction and defend the view that, even if some agentive properties constitutively and exclusively depend on internal social factors, those properties can only be grasped by regarding the system as a whole.[25] I want to suggest that if the structuralist framework applied to the study of group agency has been found convincing, it might serve as a non-reductive argument in support of the realist view endorsed by the standard account. In fact, the form of structuralism proposed here provides that group agentive properties are enabled by structural features. Meaning that, we could not see how the individuals can act as members and have the properties they have as node occupiers unless we consider the structure of groups and the way it positions each member. As an example, consider the fake commission's intrinsic agentive property a_1: A reductionist might account for this property by observing that the group

[25] One of the most widespread arguments against reductionism is supervenience: a relation of "necessary determination of one set of facts by another" (List & Spiekermann 2013, p. 629). Supervenience allows the multiple realization of facts about groups, by assuming that the same high-level fact can be determined by a multiplicity of low-level arrangements (Sawyer 2002).

members can decide upon a winner because the parties interact in such a way that they can aggregate their judgments and produce a single output out of their individual attitudes (Miller 1992; Ludwig 2017b). Indeed, there is nothing to object to the idea that the group can perform a_1 in so far as the members are able to do their part. However, the structuralist might contend, this claim is just one side of the coin – in order to do their part, the members must be nodes of a structure, which enables their agentive property to act as group members and contribute to the decision-making procedure. When a system of individuals realizes a social structure, the agentive properties they had as individuals are affected by their new positions and new role-related properties are acquired. Thus, the intrinsic agentive properties of organized social groups cannot be reduced to the properties of the members because (1) the properties that the individuals acquire as node occupiers derive from the functions of the nodes they cover and because, in most cases, (2) those properties cannot be performed in contexts other than the group's action.

Therefore, structuralism offers a non-reductive interpretation of the agentive properties of social groups that does not deny the importance of the role played by the individuals. Instead, it aims to emphasize that, just as much as any group performance would not be possible without the activity of the group's members, some properties of the members are conceivable only within the social structure that they realize.

Giulia Lasagni
Europa-Universität Flensburg (EUF)
lasagnigiulia.gl@gmail.com

References

Archer, Margaret, 1995, *Realist Social Theory: The Morphogenetic Approach*. Cambridge University Press, Cambridge.

Baker, Lynne Rudders, 2000, *Persons and Bodies. A Constitutional View*. Cambridge Studies in Philosophy, New York.

Bhaskar, Roy, 1978, *A Realist Theory of Science*. Harvester Press, Hassocks.

Bird, Alexander, 2015, *When is there a group that knows? Distributed cognition, scientific knowledge, and the social epistemic subject*. Oxford Scholarship online. DOI 10.1093/acprof:oso/9780199665792.003.0003.

Bratman, Michael, 2014, *Shared Agency: A Planning Theory of Acting Together*. Oxford University Press, New York.

Collins, Stefania, 2019, *Group Duties: Their Existence and Their Implications for Individuals*. Oxford University Press, Oxford.

Effingham, Nikk, 2010, *The metaphysics of groups*. Phil Stud 149: 251-267.

Elder-Vass, Dave, 2007, "Social structures and social relations". *Journal for the theory of social behavior* 37(4): 463-477.

Epstein, Brian, 2017, "What are social groups? Their metaphysics and how to classify them". *Synthese*. DOI 10.1007/s11229-017-1387-y.

Epstein, Brian, 2015, *The Ant Trap. Rebuilding the Foundations of the Social Sciences*. Oxford University Press, New York.

Fine, Kit, 2020, "The Identity of Social Group". *Metaphysics* 3(1): 81-91.

French, Peter, 1979, "The corporation as a moral person". *American Philosophical Quarterly* 16(3): 207-215.

Giddens, Anthony, 1984, *The Constitution of Society*. Polity Press, Cambridge.

Gilbert, Margaret, 1989, *On Social Facts*. Princeton University Press, Princeton.

Goldman, Alvin Ira, 1970, *Theory of Human Action*. Princeton University Press, Princeton.

Harris, Keith, 2020, "How individuals constitute group agents". *Canadian Journal of Philosophy* 50(3): 350-364.

Haslanger, Sally, 2003, "Social construction: the 'debunking' project". In Schmitt F.F. (ed), *Socializing Metaphysics: The Nature of Social Reality*. Rowman and Littlefield Publishers: 301-326.

Hawley, Katherine, 2017, "Social mereology". *Journal of the American Philosophical Association*: 395-411.

Hess, Kendy M., 2020, "Assembling the elephant. Attending to the metaphysics of corporate agents". In Tollefsen D. and Bazargan S. (eds), *Routledge Handbook of Collective Responsibility*. Routledge, New York-Abingdon.

Hess, Kendy M., 2014, "The free will of corporations (and other collectives)". *Philos Stud* 168(1): 241-260.

Hindriks, Frank, 2013, "The location problem in social ontology". *Synthese* 190: 413-437.

Hindriks, Frank, 2008, “The status account of corporate agents”. In Schmid H.B., Schulte-Hostemann K., Psarros N. (eds), *Concepts of Sharedness. Essays on Collective Intentionality*: 119-144.

Horden, John and López De Sa, D., 2020, “Groups as pluralities”. *Synthese*, https://doi.org/10.1007/s11229-020-02715-y.

Kincaid, Harold, 2008, “Structural realism and the social sciences”. *Philosophy of Science* 75: 720-731.

Ladyman, James, 1998, “What is structural realism?”. *Studies in History and Philosophy of Science* 29: 409-424.

List, Christian and Koenig-Archibugi, M., 2010, “Can there be a global demos? An agency-based approach”. *Philosophy and Public Affairs* 38(1): 76-110.

List, Christian and Pettit, P., 2011, *Group agency: The possibility, design, and status of corporate agents*. Oxford University Press, Oxford.

List, Christian and Spiekermann, K., 2013, “Methodological individualism and holism in political science: A reconciliation”. *American Political Science Review* 107(4): 629-643.

Ludwig, Kirk, 2018, “Proxy agency in collective action”. In Ludwig K., Jankovic M. (eds), *Routledge Handbook of Collective Intentionality*: 58-67. Routledge, New York-Abingdon.

Ludwig, Kirk, 2017a, *From Plural to Institutional Agency. Collective Action II*. Oxford University Press, New York.

Ludwig, Kirk, 2017b, “Do corporations have minds of their own?”. *Philosophical Psychology* XXX(17): 269-301.

Maier, John, 2018, “Abilities”. *The Stanford Encyclopedia of Philosophy*. Zalta EN (ed), https://plato.stanford.edu/archives/spr 2018/entries/abilities/.

Miller, Seumas, 1992, “Joint action”. *Philosophical Papers* XXI(3): 275-297.

Pettit, Philip and Schweikard, D., 2006, “Joint actions and group agents”. *Philosophy of the Social Sciences* (36)1: 18-39.

Passinsky, Asya, 2021, “Norm and object: A normative Hylomorphic theory of social objects”. *Philosophers’ Imprint* 21(25): 1-21.

Ritchie, Katherine, 2018, “Social structures and the ontology of social groups”. *Philosophy and Phenomenological Research*. DOI 10.1111/phpr.12555.

Ritchie, Katherine, 2015, “The metaphysics of social groups”. *Philosophy Compass* 10(5): 310-321.

Ritchie, Katherine, 2013, “What are groups?”. *Philos Stud* 166: 257-272.

Rovane, Carol, 2019, “Is group agency a social phenomenon?”. *Synthese* 196(12): 4869-4898.

Rovane, Carol, 1998, *The Bounds of Agency: An Essay in Revisionary Metaphysics*. Princeton University Press, Princeton.

Ruben, David Hillel, 1983, “Social wholes and parts”. *Mind*, XCII: 219-238.

Sawyer, R. Keith, 2002, “Nonreductive individualism. Part I – Supervenience and wild disjunction”. *Philosophy of the Social Sciences* 32(4): 537-559.

Searle, John R., 2010, *Making the Social World: The Structure of Human Civilization*. Oxford University Press, New York.

Searle, John R., 1995, *The Construction of Social Reality*. The Free Press, New York.

Shapiro, Stewart, 1997, *Philosophy of Mathematics: Structure and Ontology*. Oxford University Press, Oxford.

Sheehy, Paul, 2006, "Sharing space: the synchronic identity of social groups". *Philosophy of the Social Sciences* 36(2): 131-148.

Strohmaier, David, 2018, "Group membership and parthood". *Journal of Social Ontology*, 4(2): 121-135.

Tollefsen, Deborah, 2015, *Groups as Agents*. Polity Press, Cambridge (UK) and Malden (MA).

Theiner, Georg, 2018, "Group-sized distributed cognitive systems". In Jankovic M. and Ludwig K. (eds), *The Routledge Handbook of Collective Intentionality*: 233-248. Routledge, New York-Abingdon.

Tuomela, Raimo, 2013, *Social Ontology, Collective Intentionality and Group Agents*. Oxford University Press, New York.

Tuomela, Raimo, 1995, *The Importance of Us. A Philosophical Study of Basics Social Notions*. Standford University Press, Standford.

Urfalino, Philippe, 2017, "The social ontology of deliberating bodies". *The Journal of Political Philosophy* 25(4): 387-410.

Uzquiano, Gabriel, 2018, "Groups: Toward a theory of plural embodiment". *Journal of Philosophy* 115(8): 423-452.

Uzquiano, Gabriel, 2004, "The Supreme Court and the Supreme Court Justices: a metaphysical puzzle". *Noûs* 38(1): 135-153.

Vetter, Barbara, 2019, "Are abilities dispositions?". *Synthese* 196(1): 201-220.

Worrall, John, 1989, "Structural realism: The best of both worlds?". *Dialectica* 43: 99-124.

Wringe, Bill, 2019, "Global obligations, collective capacities, and 'ought implies can'". *Philosophical Studies*. DOI 10.1007/s11098-019-01272-6.

Focus

Introduction: Non-Demonstrative Proofs in Early Modern Europe

Giuliano Mori

According to Aristotle, ἐπιστήμη – that is, *scientia* or certain knowledge – must be based upon demonstrative arguments or syllogisms about things that cannot be otherwise, thus affording necessary conclusions. One may not disagree with such arguments: as long as scientific demonstrations are righlty understood, they force assent. Yet, Aristotle recognizes that the realm of things that can be known (and demonstrated) with absolute certainty or necessity is relatively limited – so limited that he will concede that one can have scientific knowledge of things that happen for the most part (ὡς ἐπὶ τὸ πολὺ), being thus, strinctly speaking, not logically necessary.

These assumptions constitute perhaps one of the most consequential ideas in the history of Western thought. Especially influential was also a corollary to the definition of scientific demonstration, namely the notion that outside the realm of logical necessity and ἐπιστήμη, the argumentative reasons one may use will never be able to demonstrate, being limited to persuading. Persuasive arguments are further distinguished by Aristotle into the rhetorical, which may sway, and the dialectical, which have such an inherent argumentative rigour that they ought to persuade. An essential difference thus sets demonstrative arguments apart from the rhetorical and dialectical since only the former enjoy logical necessity. Even the relatively powerful dialectical arguments, which obey a rigorous logical structure, cannot but fall short of certainty since their premises do not fulfill the requirement of syllogistic argumentation, being merely generally admitted or probable (ἔνδοχος). This is also true for rhetorical arguments, which Aristotle sees in connection to dialectic, as a weaker form of persuasive argumentation that does not obey a logical structure.

The uneven territory of argumentative persuasiveness is the subject matter of this focus. All of the cases here analyzed spring from the recognition of the impossibility to produce logically necessary demonstrations. In most cases, this awareness emerged from two very different attitudes. On the one hand, though agreeing with Aristotle's theory of demonstration, many scholars found them-

philinq X, 2-2022, pp. 85-98
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.422

selves working in fields that could not afford them with the kind of premises required by Aristotelian ἐπιστήμη – for instance the fields of law, history, and philology. On the other hand, from the sixteenth and seventeenth centuries onwards, a growing number of philosophers rejected the Aristotelian demonstrative framework altogether, being convinced that the causal understanding that according to Aristotle underlays scientific knowledge is essentially a chimera.

Most of the great paradigm shifts that characterize European culture from the early fifteenth century correlate highly with a gradual but steady decline in the general confidence about the possibility of demonstrating with logical necessity. Along with growing skeptical attitudes came, for instance, the gradual fall from favor of a philosophical genre such as the traditionally demonstrative *disputatio*, which was at least in part supplanted by other genres, persuasive dialogues first of all. Most importantly, the decline of demonstrative argumentations rekindled the interest in non-demonstrative strategies of proof that were originally treated by Aristotle under the heading of rhetoric and dialectic.

From the early fifteenth century, these disciplines became the stronghold of humanist education, often misrepresented as a pedantic enterprise into grammatical quibbles and stylistic fastidiousness. Yet, as Coluccio Salutati argued in a 1405 letter to Giovanni Dominici, the humanist preoccupation with rhetoric and dialectic was far from trifling. Along with grammar, rhetoric and dialectic were required by one's search for truth, being conceived as the disciplines that taught respectively to discern truth from falsehood and to persuade of the truth.[1] Only in this light, can one understand the humanist urge to found or renovate a dialectical organon that could serve as a foundation for all disciplines, as was the objective of Lorenzo Valla, Rudolf Agricola, and Petrus Ramus only to mention the best-known exponents of the humanist "dialectical revolution".

Yet, the question remained, more pressing the ever: were rhetorical and dialectical proofs necessarily inferior to logical demonstrations? Where there circumstances under which persuasive arguments could be at least functionally as

[1] "Quis negare potest, cum dialectica sit inquisitiva veritatis, que sola finis est omnium liberalium artium et quaruncunque scientiarum, quod hanc necesse sit discere Christianos? […] Nescio qualiter hoc commodius expedire veleam quam cum divo Aurelio Augustino. Dicit enim in quarto *De doctrina christiana* questionem hanc absolvens in hac forma, videlicet: nam cum per artem rethoricam [*sic*] et vera suadentur et falsa, quis audeat dicere adversus mendacium in defensoribus suis inermem debere consistere veritatem […]?" (Salutati 1891-1911: 4.1: 222, 224). Cf. also Vergerio (2002: 50) about the purpose of the trivium: "Ante omnia igitur, si quid proficere de doctrinis volumus, congrui sermonis habenda est ratio et curandum ne, dum maiora prosequimur, turpiter in minoribus labi videamur. Proxime huic disputandi ratio adhibenda est, per quam in unaquaque re quid verum falsumve sit, facile argumentando quaerimus. Ea, cum sit discendi scientia sciendique disciplina, ad omne doctrinarum genus viam facile aperit. Rhetorica vero tertia est inter rationales disciplinas, per quam artificiosa quaeritur eloquentia, quam et tertiam posuimus inter praecipuas civilitatis partes".

probative as syllogistic conclusions? And how could one work towards increasing the persuasiveness of one's arguments?

All of these questions, which lie at the very heart of the issues discussed in this focus, entail the rhetorical and dialectical notion of *probabilitas*. Latin authors generally translated with *probabilitas* the Greek τὸ εἰκός, defined in Aristotle's *Rhetoric* as what happens for the most part and concerns things that may be other than they are, being so related to that in regard to which they are probable as the universal to the particular (cf. Arist. *Rh.*, 1357a). In Cicero's simpler, judicially imbued explanation, *probabilitas* (also termed *veri similitudo*) is the quality of those "things that usually accompany truth" – it is the quality of the usual and the expected and thus has probative force when it is employed to assess the credibility of accounts about events that may or may not have happened (cf. Cic. *Inv. rhet.*, 1.21.29).

So conceived, classical *probabilitas* conjoined two concepts that are today perceived as separate, probability and 'probativity'. This conception paved the way for scholastic treatments of the theory of probability, which became especially developed in fields including jurisprudence, moral philosophy, economics and political theory. Not surprisingly, the medieval discussion of *probabilitas* provided early modern authors with a wealth of theoretical instruments and argumentative strategies that were incorporated in the great Renaissance effort to develop a probative organon that did not rely on logically necessary demonstrations, but rather on persuasive reasons belonging to the fields of rhetoric and dialectic.

The first three articles of this focus offers a bird's-eye view of the notions of proof and evidence that emerged from this epistemic background.

In his article, James Franklin traces a history of probable argumentation as it was deployed in law, moral theology, and finance especially. Provided that the essence of judicial procedures was to evaluate the evidence for and against a claim, allowing the judge to reach virtual certainty about alleged crimes, medieval jurisprudence constituted a somewhat obvious seedbed for the discussion of *probabilitas* and probable arguments. As remarked by Franklin, "the conceptual developments of legal *probabilitas* overflowed into Catholic moral theory, where the confessional was regarded as a miniature court of canon law and hence manuals for confessors advised on theory applicable to deciding 'cases of conscience'". Lastly, new impetus was given to the theory of *probabilitas* by the late medieval and early Renaissance diffusion of aleatory contracts such as maritime insurances, annuities, and games of chance, which required a statistical understanding of the nature of risk.

Although he admits that humanists too adopted some of the tools derived from the theory of *probabilitas* in order to develop philological and critical methods for assessing the plausibility of historical accounts and philological readings, Franklin stresses the role played in the development of probable arguments by late scholastic authors such as Medina, Soto, Cano, Lessius and Caramuel, who applied strategies of probable argumentation to the most diverse fields of knowledge in order to reach conclusions that, though falling short of the certainty afforded by scientific demonstrations, could nonetheless be very probable – so probable, in fact, that under certain circumstances they could be considered as good as certain.

Franklin's article offers us valuable insights that concern in particular the continuity between the medieval and the early modern development of the concepts of *probabilitas*, proof, and evidence. Moreover, Franklin opens up discussion of some crucial and debated aspects in the history of *probabilitas* and argumentation, first among which is the relationship between epistemic probability and aleatory or stochastic probability. As shown by Franklin, both kinds of probability existed and were conceptualized well before the time of Pascal and Port-Royal. Most notably, however, Franklin argues that they were also perceived by scholastic authors as two different albeit connected concepts, the former being dealt with the continuation of legal and moral debates, while the latter provided a background for the Renaissance risk culture of business.

Franklin's article concludes with an analysis of Galileo's use of probable arguments in the field of natural sciences. In his *Dialogue Concerning the Two Chief World Systems* Galileo intermingled rhetorical and dialectical arguments; yet, in order to enhance the probative strength of the latter, he adopted a twofold strategy. First, he eschewed dialectical arguments grounded in extrinsic probability (i.e., arguments supported by probable authority). Secondly, he rejuvenated arguments based upon intrinsic probability (i.e., arguments whose conclusion is supported by the evidence) by clothing them in mathematics more than was ever done before. Thus purged of extrinsic probability and refashioned in mathematical terms, Galileo's persuasive arguments offer us, according to Franklin, an example of "the successful movement of probabilistic argument into the domain of quantitative sciences, the area in which the Scientific Revolution was to transform the world of ideas".

Other examples of this movement of probabilistic argument into early modern culture are provided by Barbara Shapiro, whose article paints a veritable 'atlas' of probabilistic, rhetorical proofs so as they were understood and used across the whole spectrum of early modern culture.

Shapiro shows how probabilistic strategies of proof emerging from the epistemic background described by Franklin were adapted and applied to a variety of different disciplines that – for one reason or the other – could not afford scientific demonstrations. Most importantly, however, Shapiro argues that while appreciating the different shapes probable arguments took in different disciplines, we must not fail to observe these disciplines in relation to one another, lest we fail to see two crucial aspects of the history of probable arguments. One is the role played by textbooks, encyclopedias and dictionaries in familiarizing a non-intellectual audience with the idea of probabilistic knowledge; the other is the cross-disciplinary nature of some instruments of probable inference – for instance, credible witness testimony – which were not exclusive to one area of early modern culture, belonging instead to a common intellectual background.

Shapiro's analysis of the commonalities that characterize early modern notions of probable argumentation concentrates on four disciplinary areas: history, religion, law, and natural science. The orchestration of demonstrative and probable arguments posed different challenges to the scholars in these fields, who were led to find unique solutions to satisfy a common yearning for certainty. Historians, on the one hand, were appealed by the ideal of a rhetorically persuasive narrative but also laid claims to a kind of certainty appropriate for matters of fact. Theologians, on the other hand, embraced the medieval tradition of probability upon developing the complex organon of early modern casuistry but also used probable and circumstantial evidence in order to provide rational proofs for belief in Scripture. A similar probabilistic approach to evidence was one of the core concerns of early modern jurisprudence, whose attempt to reach conclusions as close as possible to certain knowledge are analyzed by Shapiro both with regard to the continental and the English legal tradition. Finally, Shapiro focuses on what she considers "the most challenging intellectual area to be examined", that is the natural sciences, were the effort to find a valuable 'dialectical alternative' to the canons of demonstrations and mathematical certainty led to the adoption of hypotheses, seen "as a means of linking 'matters of fact' with generalizations, principles and theory".

While Franklin's and Shapiro's observation shed light on the early modern development of dialectical arguments, the third article of this focus concerns the other branch of persuasive argumentation, namely rhetoric. Francis Goyet invites us to reflect on the emergence of rhetorical means of persuasion as they were used in the seventeenth century in order to fulfill a purpose that dialectical arguments could not achieve. Thanks to a careful lexicographical analysis that charts the history of the terms *convincere* (Lat.) and *convaincre* (Fr.), Goyet enlightens us on the early modern tension between the dialectical desire to prove in a way that defeats our adversary and the rhetorical urge to persuade an audience who is entirely free to agree or disagree with us.

The key figure in Goyet's reconstruction is Pascal, whose works are described as a watershed in the history of rhetorical arguments. Before Pascal, Goyet argues referring in particular to the prominent example of Descartes, the main philosophical objective was always the victory over hypothetical adversaries who needed to be defeated by one's reasons. Pascal too, according to Goyet, has in mind this to kind of philosophical victory in *The Art of Persuasion* (c. 1655) and – perhaps even more so – when he argues against actual adversaries in the *Provincial Letters* (1656-57), whose aim is to defeat the Jesuits completely. Yet a new kind of argument emerges in the *Pensées*. Alongside the desire to force the audience to admit the truth of the Christian religion, Pascal discovers the crucial importance of a kind of arguments that persuades while respecting the freedom of the audience. This kind of (rhetorical) persuasive arguments is the same that was chosen by Jesus, who "could have appeared in a manner 'absolutely capable of 'convincing' all men' but refused to do so, not wishing to force anybody". Instructed by the example of Christ, who sought to persuade the heart (*le cœur*) rather than convincing the intellect (*l'esprit*), in the *Pensées* Pascal brings to the fore the importance of rhetorical arguments that – unlike dialectical ones – draw their use precisely from the fact that they do not force the audience, respecting its freedom.

Goyet closes the first part of this focus, shedding light – along with Franklin and Shapiro – on the theoretical underpinning of the Renaissance and early modern development of persuasive argumentation of both the dialectical and the rhetorical kind. The second part of this focus contributes to the analysis by discussing some case studies that concern the application and use of probable arguments and proofs in specific fields or situations. Doing so, this volume tries to avoid disciplinary compartmentalization, which could appear partially anachronistic, obscuring the commonalities that – as reminded by Shapiro – characterize early modern notions of probable argumentation. Instead, the second part of this focus concerns the two main functions of probable or persuasive argumentation: the critical search for probable evidence persuading us to believe claims that we are presented with, on the one hand, and the quest for persuasive proofs that may convince others to believe our own claims on the other.

The second part of this focus opens with an article that address the question of historical truth in the Renaissance, dealing in particular with the concept of historical evidence, understood as the requirement for one's belief in the veracity of historical accounts. Giuliano Mori's article focuses on the sixteenth century and, more specifically, on the critical historical method illustrated by the late scholastic philosopher Melchor Cano. Cano's interest in the quest for historical evidence belongs to his apologetic project to devise repositories of arguments (*loci theologici*) that theologians could use in order to defend the Catholic doctrine. Cano innovatively includes among these argumentative *loci* that of human history. Yet, before human history can be used to persuade others, it is the theologians' task to become persuaded of the veracity of the accounts drawn from human history. Theologians must thus put on their critical hat, making an effort to evaluate precisely the intrinsic probability of historical evidence.

Cano's intellectual project and cultural background – Mori insists – were very different from famous coeval examples of the critical historical method that arose from the application of humanist philology to the field of legal history. Cano drew his method from the scholastic and judicial tradition of assessment, comparison, and grading of probability. Therefore, it is not surprising that Cano's critical historiographical tools should have close parallels in the inquisitorial tradition – for instance, the notion of reputation (*fama*), the principle of multiple witness corroboration, and the technique of computing and combining probabilities. As Mori shows analyzing the denunciation of the forgeries by Annius of Viterbo in the *Loci theologici*, Cano was not deaf to the innovations of humanist philology, of which he made use in order to update the judicial and scholastic method for assessing probabilities. Yet, at variance with authors such as François Baudouin and Jean Bodin, he did not consider philology as a method per se but rather as an auxiliary tool.

These observations are employed by Mori in order to stress the importance of the tradition of probable reasoning for modern critical scholarship. The comparison of Cano's critical method with that of Baudouin and Bodin invites a revision of widespread assumptions about the rise of modern historical scholarship as the result of the humanist battle against the allegedly uncritical and authoritarian forces of scholasticism and Bartolism. Mori concludes that "there were many possible roads to modern historical criticism. All of them, however, required two distinct factors" – on the one hand, a comparative methodology for the assessment and grading of probability whose precedents could be found in scholastic and judicial tradition; on the other, the philological awareness required to assess the intrinsic textual or linguistic probability (or improbability) of written sources.

The issue of how to evaluate the probability of received accounts is also at the heart of Stefania Tutino's article, which shifts the focus from the field of history to that of religious faith and doctrine. Medieval theologians – along with jurists and canonists – recognized the importance of credibility for religious beliefs though subordinating it sharply to the kind of truth received by divine revelation. It was in the early modern period that confessional, philosophical, and apologetic challenges brought the question of the credibility or plausibility of the truth of Catholic doctrines to the fore. The newly acquired centrality of this aspect produced a growing interest in the kinds of theological evidence that, differing from the invincible proof of divine revelation, could nonetheless make beliefs credible (or incredible). In a way that parallels closely the rekindled interest in probable argumentation illustrated in this volume, Tutino shows how dialectical and rhetorical arguments entered the field of post-Reformation Catholicism in an unprecedented way.

In order to explore the relationship between truth, credibility, and evidence Tutino scrutinizes the case study offered by an alleged miracle that took place in the Italian town of Bolsena. In the spring of 1693, Agostino Berton visited the site of a well-known medieval miracle: a church whose altar had been stained during a celebration by the blood of Christ miraculously dripping from a holy wafer. Initially skeptical, Agostino was convinced of the veracity of the original miracle when he received a vision of a tiny naked baby moving towards him from the stains of blood on the altar.

Agostino's vision was immediately subjected to close investigation. The local clergy acknowledged that Agostino's testimony lacked some credibility, yet they also realized that Agostino's vision did not promote a new cult but merely corroborated a precedent miracle that was instead well-established and fully verified. Therefore, they believed that Agostino's account was a perfect example of when reason should make room for faith. A similar tension between the need for credibility and the appeal to faith is also illustrated by the subsequent interrogation of Agostino in Rome, where the Holy Office inquired about the doubts that he had initially harbored. Agostino satisfied the inquisitors that he had absolute faith in the Eucharistic dogma and had been merely dubious of the fact that the stains on the altar were those of the real blood of Christ dripping from the wafer, since he had had no proof of the miracle before he received his vision. The Inquisitors found no fault in Agostino's perspective on truth and credibility: the dogmas of the Catholic religion had to be embraced by faith, and no proof was required of their truth; miracles, instead, needed to be credible in order to be believed. As Tutino concludes, "from the perspective of the seventeenth-century ecclesiastical authority, good faith did not necessarily produce 'right' faith. In other words, even though the censors knew that faith cannot be reduced to a matter of reasonable evidence and demonstrable proofs, it must include a measure of credibility".

Following Mori's and Tutino's analyses of the ways in which probable reasoning was used by early modern authors as a critical tool, that is in order to assess the intrinsic probability of received accounts, the final part of this focus looks at rhetorical and dialectical arguments from a different perspective. Rather than analyzing on how early modern authors sought probable evidence to justify their own belief (or disbelief) in something, the last two articles of this focus explore the ways in which rhetorical and dialectical 'proofs' were used in order to convince others. This 'probative use' of rhetorical and dialectical arguments is analyzed in particular in relation to the fields of theology and philosophy.

In his article, Rudolf Schuessler explores the role played by scholastic probabilism in regulating the acceptance of philosophical doctrines. The case study chosen by Schuessler is especially instructive, not least because it concerns a philosophical school that was traditionally considered controversial by Catholic authors. Analyzing the different attitudes towards Epicureanism that developed within the Catholic milieu in seventeenth-century Italy and France, Schuessler makes two important points. First, he shows that – contrary to widespread assumptions – the Catholic attitude towards Epicureanism was not as unfavorable as is often thought, especially in the first half of the seventeenth century, in milieus such as those of pope Urban VIII in Italy and Cardinal Richelieu in France. Secondly – and even more significantly for the purpose of this special issue – Schuessler explains the favorable reception of Epicureanism by relating it to the history of probabilism.

In the first half of the seventeenth century, the prevalent Catholic approach to morality was grounded in probabilism, defined as the doctrine according to which one could rationally embrace 'probable opinions' considered true by competent evaluators, even in contrast to other competent evaluators. These assumptions – Schuessler demonstrates – were applied not only to moral theory but also to philosophy, allowing early modern authors to regard specific, Christianized Epicurean claims as tenable irrespective of the greater consent commonly given to Aristotelianism. The rise of probabilism thus coincided with the heyday of neo-Epicureanism as reflected in the works of Pierre Gassendi and François La Mothe Le Vayer in France, Francis Bacon and Thomas Hobbes in England, Giovanni Nardi and Francesco Sforza Pallavicino in Italy.

In the second half of the seventeenth century, opposition mounted against the doctrine of probabilism, especially after the publication of Pascal's *Provincial Letters*. As demonstrated by Schuessler, in this case too, the decline of probabilism and the weakening of Epicurean positions were synchronous. Yet, while in France the "rise of a new scientific worldview may have compensated neo-Epicureans for the decreased protection offered by probabilism", in Italy "probabilism proved more resilient than in France, but Epicurean thought diminished further". This decline is amply illustrated by Schuessler, whose analysis of Sforza Pallavicino's *Del bene* (1644) – a work imbued with Epicurean and hedonistic themes, authored by a foremost Jesuit, Cardinal, probabilist and follower of Galilei – contrasts sharply with the ineffective attempts by Alessandro Marchetti to obtain permission to publish his translation of Lucretius' *De rerum natura* in 1667.

Schuessler's analysis of Pallavicino's work provides us with a case study of how, in the field of theological discussion, probable reasoning and dialectical arguments could be applied to specifically philosophical issues such as the acceptability of Epicureanism. The reverse case is analyzed by Alberto Artosi and Giovanni Sartor, whose article focuses on Pascal and Leibniz, showing how they resorted to probable arguments upon facing the quintessential theological question of the existence of God.

On the shared premise that none of the available "proofs" could demonstrate God's existence in a necessary way, both Pascal and Leibniz held that one should nonetheless assume the existence of God. Yet, in spite of superficial similarities, the ways they did so – Artosi and Sartor demonstrate – were greatly different. Pascal's wager is essentially game-theoretic in nature: it appeals to considerations of probability and utility and its purpose is to determine one's optimal decision under uncertainty. This is why, according to Leibniz, Pascal paid attention only to moral arguments. On the contrary, Leibniz sought to prove the existence of God by means of ontological arguments that could ultimately satisfy the canons of demonstrative validity. To do so, he devised a probabilistic argument grounded on the legal procedure of accepting something as true as long as there is no proof to the contrary. At variance with Pascal's, Leibniz's argument did not concern – at least not primarily – the field we know as decision theory, but rather that of presumptive reasoning. "Faced with the troubling question of God's existence, Pascal and Leibniz adopted two quite different attitudes: Pascal framed his argument in terms of *acting as if* God existed; Leibniz sought to substantiate the *belief that* God exists".

Having thus analyzed Pascal's and Leibniz's probable arguments for the existence of God, in the second part of their article, Artosi and Sartor ask whether those arguments were really persuasive. Objections are raised against both arguments: while Pascal's wager only works on the assumption that there is a nonzero probability of winning the bet, Leibniz's argument is valid as long as there is a way of "prioritizing" the presumption of the possibility of God over its contradictory (otherwise, by Leibniz's own standards, one should presume that God does not exist as long as the contrary is not proved). While the objection to Pascal's argument may be solved only if one posits that the wager is addressed to those alone who are willing to bet on God's existence, Artosi and Sartor argue that Leibniz had an answer to the aforementioned objection. In his *Elements of Natural Law*, he strove to prove that presumption always lies on the side that has fewer logical and ontological requirements or conditions, this being always the side of possibility. When applied to Leibniz's probable argument for the existence of God, this principle stipulated that God's possibility ought to be inferred unless its impossibility could be established.

Artosi and Sartor's conclusions are illuminating not only for what they show about Pascal and Leibniz but also because they raise some crucial points that concern both the entire history of probable arguments and the history of scholarship on probability.

First, they demonstrate that classical, medieval, and Renaissance traditions informed 'modern' concepts of probability such as Pascal's and Lebniz's. More specifically, along with Franklin, Shapiro, Mori, and Tutino, Artosi and Sartor remind us of the enormous influence that Renaissance legal culture had on the development of modern probable arguments as they were used in non-legal areas including those of science, philosophy, and theology. By the same token – the articles in this focus demonstrate – other classical and medieval traditions such as forensic rhetoric (see Goyet) and scholastic theology (see Schuessler) also played a crucial role in the process that led to the formation of the modern notion of probability.

Artosi and Sartor also address another central issue in the early modern history of probable reasoning, namely the relationship between presumptive reasoning – as exemplified by the legal tradition and Leibniz's argument – and probability calculus – as developed by Pascal's and Bernoulli's mathematics of probability. This question often presents itself in this volume, most explicitly in Franklin's article, which suggests that both stochastic or aleatory probability (i.e., probability calculus) and epistemic probability existed well before the time of Pascal and were perceived as two different notions that had different applications. Artosi and Sartor similarly suggest that Leibniz ultimately viewed presumptive reasoning and probability calculus as two distinct notions, but they argue that he ultimately came to think of them as two related branches of the same logic.

These conclusions touch upon two debated issues that have shaped the discussion on the history of probability for the past fifty years, since the publication of Hacking's groundbreaking *The Emergence of Probability*. One is the question of the relationship between post-Pascalian probability and previous notions of probable argumentation and probable proof. The other concerns instead the relationship between two notions of probability that we have come to perceive as greatly different: stochastic, aleatory, or objective probability on the one hand and epistemic or subjective probability on the other.

Thanks in particular to important critiques of Hacking's theses including Garber and Zabell's "On the Emergence of Probability" (1979) and Franklin's *The Art of Conjecture* (2001), I think we can say that most scholars – with partial but notable exceptions[2] – have come to agree that there was no real 'emergence'

[2] See for instance Daston (1988; 2000). In her sympathetic review of the second edition of Hacking's work, Daston argued that Hacking's critics too "have largely adopted his terms of framing of the problem, 'the emergence of probability', even if they have not embraced the surprising specifics of his solution or the bold generalities of his approach" (2007: 805). While this is certainly a proof of

of post-Pascalian probability understood as something that was entirely inconceivable in earlier times. Crucial scholarship in the past decades, including the works of many of the contributors to this volume,[3] demonstrated that there were longstanding medieval and Renaissance traditions of probable reasoning (rhetorical, legal, dialectical, economical, etc.) that cannot be considered as mere 'preconditions' for seventeenth-century probability, understood – in Hacking's terms – as "something which is not probability but which was, through something like a mutation, transformed into probability" (2006: 9). Rather, these traditions informed the modern, seventeenth- and eighteenth-century notion of probability which, although differing in many ways from earlier versions of the same concept, should not be seen as something completely new but rather as the relatively seamless evolution of a tradition that had existed for centuries if not millennia. The many allusions in this special issue to the post-Pascalian heritage of the early modern notions of probability here discussed provide – I believe – a strong argument in support of this moderately continuist perspective.

Connected to the debate on the emergence of probability is the question of the relationship between aleatory and epistemic probability. This question too was in some way inaugurated by Hacking, who proposed that "the probability that emerged so suddenly is Janus-faced", being on the one side aleatory and on the other epistemic (2006: 12).[4] According to Hacking, these two 'sides' of probability were not distinguished sharply, at least not initially – Daston (1994), for instance, suggests that they came to be viewed as clearly separate notions in the mid-nineteenth-century. Franklin, Artosi and Sartor argue, instead, in this volume, that epistemic and aleatory probability – i.e., probability$_1$ and probability$_2$ in Carnap's terms – were clearly distinguished in the time of Pascal and even before, characterizing different traditions that may or may not have been integrated.

Personally, I am inclined to take a somewhat conciliatory position, suggesting that the distinction between aleatory and epistemic probability was, pragmatically, a difference that made no difference: one that was perceived and recognized even before the time of Pascal and Leibniz without ipso facto preventing scholars from combining the two notions within the same epistemological and argumentative systems. This assumption offers – I believe – a few ad-

Hacking's lasting influence, I do not believe that it is a reason to disregard the main criticism directed against Hacking's thesis, namely that we should not see the pre-seventeenth-century history of probability as something completely distinct from seventeenth- and eighteenth-century probability.

[3] See Franklin (2001); Schuessler (2019); Shapiro (1983; 1991); and Tutino (2014; 2018). See also Ginzburg (2000); Hald (1990); Lancaster and Raiswell (2018); MacLean (1992; 2000; 2002); Rabinovitch (1973); Schneider (1980); Serjeantson (1999; 2006).

[4] Cf. also Hacking (2006: 11-17, 122-133).

vantages. Firstly, it agrees with the moderately continuist perspective sketched above since it allows us to appreciate the commonalities that unite not only the pre-Pascalian and post-Pascalian probability, but also the different notions of probability that were used simultaneously in different disciplinary contexts, as shown for instance by Shapiro. Moreover, a pragmatic approach to the distinction between aleatory and epistemic probability may also allow us to consider in a new light recent developments in the area of probability, which in some way suggest that even for us – or at least for the great majority of the world's population, which is not trained in analytic philosophy – the distinction between probability$_1$ and probability$_2$ may still be one that pragmatically makes little difference. A 'persuasive argument' in favour of this claim is provided for instance by the extraordinary importance assumed in the last decades by applications of Bayesian inference in the fields of philosophy, psychology, economics, and law.

Giuliano Mori
University of Milan
giuliano.mori@unimi.it

References

1. Primary sources

Aristotle, 1947, *The "Art" of Rhetoric*, ed. by John Henry Freese, Harvard University Press, Cambridge, MA.

Cicero, Marcus Tullius, 1915, *Rhetorici libri duo qui vocantur de inventione*, ed. by Eduard Stroebel, Teubner, Leipzig.

Salutati, Coluccio, 1981-1911, *Epistolario*, ed. by F. Novati, 4 vols, Tipografia del Senato, Roma.

Vergerio, Pier Paolo, 2002, "Ad Ubertinum de Carraria de ingenuis moribus et liberalibus adulescentiae studiis liber", in Craig Kallendorf, ed., *Humanist Educational Treatises*, Harvard University Press, Cambridge, MA: 1-91.

2. Studies

Daston, Lorraine, 1988, *Classical Probability in the Enlightenment*, Princeton University Press, Princeton.

Daston, Lorraine, 1994, "How Probabilities Came to Be Objective and Subjective", in *Historia Mathematica*, 21, 3: 330-44.

Daston, Lorraine, 2000, "Probability and Evidence", in Daniel Garber and Michael Ayers, eds., *The Cambridge History of Seventeenth-Century Philosophy*, Cambridge University Press, Cambridge, vol. 2: 1108-44.

Daston, Lorraine, 2007, "The History of Emergences", in *Isis*, 98, 4: 801-8.

Franklin, James, 2001, *The Science of Conjecture: Evidence and Probability before Pascal*, Johns Hopkins University Press, Baltimore.

Garber, Daniel and Sandy Zabell, 1979, "On the Emergence of Probability", in *Archive for History of Exact Sciences* 21, 1: 33-53.

Ginzburg, Carlo, 2000, *Rapporti di forza: Storia, retorica, prova*, Feltrinelli, Milano.

Hacking, Ian, 2006, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction and Statistical Inference*, 2nd ed., Cambridge University Press, Cambridge.

Hald, Anders, 1990, *A History of Probability and Statistics and Their Applications before 1750*, Wiley, New York.

Lancaster, James AT and Richard Raiswell, 2018, eds., *Evidence in the Age of the New Sciences*, Springer, Cham.

Maclean, Ian, 1992, *Interpretation and Meaning in the Renaissance: The Case of Law*, Cambridge University Press, Cambridge.

Maclean, Ian, 2000, "Evidence, Logic, the Rule and the Exception in Renaissance Law and Medicine", in *Early Science and Medicine*, 5, 3: 227-56.

Maclean, Ian, 2002, *Logic, Signs, and Nature in the Renaissance: The Case of Learned Medicine*, Cambridge University Press, Cambridge.

Rabinovitch, Nachum L., 1973, *Probability and Statistical Inference in Ancient and Medieval Jewish Literature*, University of Toronto Press, Toronto.

Schneider, Ivo, 1980, "Why Do We Find the Origin of a Calculus of Probabilities in the Seventeenth Century?", in Jaakko Hintikka, D. Gruender and E. Agazzi, eds., *Probabilistic Thinking, Thermodynamics and the Interaction of the History and Philosophy of Science: Proceedings of the 1978 Pisa Conference on the History and Philosophy of Science*, vol. 2, Springer, Dordrecht: 3-24.

Schuessler, Rudolf, 2019, *The Debate on Probable Opinions in the Scholastic Tradition*, Leiden, Brill.

Serjeantson, R.W., 1999, "Testimony and Proof in Early-Modern England", in *Studies in History and Philosophy of Science*, 30, 2: 195-236.

Serjeantson, R.W., 2006, "Proof and Persuasion", in Katharine Park and Lorraine Daston, eds., *The Cambridge History of Science*, vol. 3, Cambridge University Press, Cambridge: 132-76.

Shapiro, Barbara J., 1983, *Probability and Certainty in Seventeenth-Century England: A Study of the Relationships between Natural Science, Religion, History, Law, and Literature*, Princeton University Press, Princeton.

Shapiro, Barbara J., 1991, *"Beyond Reasonable Doubt" and "Probable Cause": Historical Perspectives on the Anglo-American Law of Evidence*, University of California Press, Berkeley and Los Angeles.

Tutino, Stefania, 2014, *Shadows of Doubt: Language and Truth in Post-Reformation Catholic Culture*, Oxford University Press, Oxford.

Tutino, Stefania, 2018, *Uncertainty in Post-Reformation Catholicism: A History of Probabilism*, Oxford University Press, New York.

Late scholastic probable arguments and their contrast with rhetorical and demonstrative arguments

James Franklin

Abstract: Aristotle divided arguments that persuade into the rhetorical (which happen to persuade), the dialectical (which are strong so ought to persuade to some degree) and the demonstrative (which must persuade if rightly understood). Dialectical arguments were long neglected, partly because Aristotle did not write a book about them. But in the sixteenth and seventeenth century late scholastic authors such as Medina, Cano and Soto developed a sound theory of probable arguments, those that have logical and not merely psychological force but fall short of demonstration. Informed by late medieval treatments of the law of evidence and problems in moral theology and aleatory contracts, they considered the reasons that could render legal, moral, theological, commercial and historical arguments strong though not demonstrative. At the same time, demonstrative arguments became better understood as Galileo and other figures of the Scientific Revolution used mathematical proof in arguments in physics. Galileo moved both dialectical and demonstrative arguments into mathematical territory.

1. *The division of arguments into demonstrative, dialectical/probable, and rhetorical*

Aristotle's *Topics* opens with a division of arguments into three kinds: the demonstrative, the dialectical and the eristic or fallacious. The classification is essential to understanding his approach to argument and all developments in logic up to early modern times.

Aristotle had written a book on demonstration, the *Posterior Analytics.* A true or fully developed science should demonstrate its truths by syllogistic deduction from self-evident first principles, explaining why the truths of the science must be as they are. The first principles should be simple enough to be evident to the pure light of reason, or *nous* (Latin *intellectus*), a divinely-granted faculty of the soul capable of grasping necessities (Bronstein 2016: ch. 4).

If to modern ears that seems a promise too good to be true, for ancient, medieval and early modern thinkers it was confirmed by the existence and obvious success of Euclidean geometry, a science that seemed to conform exactly

philinq X, 2-2022, pp. 99-116
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.424

to Aristotle's model (McKirahan 1992: ch. 12). Geometry was conceived to be a body of necessary truths about the real space we live in, not some Platonic abstraction of it. Attempts to cast other bodies of knowledge into the Euclidean mold proved less successful, but the model remained an ideal for them.

The meanings of the other two divisions of argument are less clear. To call an argument eristic or fallacious or "merely rhetorical" is to classify it psychologically rather than logically – it is said to have force in actually persuading listeners when it does not deserve it logically (or rather, independently of any logical force it may happen to have). As Aristotle puts it, an argument "is persuasive (*pithanon*) because there is someone whom it persuades" (*Rhetoric* 1356b29-30). However, Aristotle's *Topics* and *Rhetoric* and later works by leading theorists such as Cicero and Quintilian in fact disapproved of deliberately fallacious arguments and devoted considerable attention to kinds of argument which persuade because they do have logical strength. Nevertheless, the emphasis in later works of rhetoric was principally on techniques for rendering arguments attractive to hearers rather than on their logical force.

The profile of the middle classification, dialectical or probabilistic arguments, suffered because Aristotle did not write a book about them. The medieval and early modern (and even late modern) development of a theory of such arguments was therefore slow and painful. However, by the late Renaissance, there was some generally-accepted theory.

It came to be accepted that arguments could be probable – of some logical force short of demonstration – for two different reasons (called by the Renaissance scholastics "intrinsic" and "extrinsic" probability [Schuessler 2019: 169-72]). An argument has intrinsic probability (to some degree, which could be high or low), if the evidence supports the conclusion. Guilt in a court of law is proved beyond reasonable doubt (or not) by the evidence given; a scientific theory is supported by observational evidence. A central argument form is reasoning "from what happens for the most part", as Aristotle puts it, now called the proportional syllogism or statistical syllogism or direct inference (Franklin 2001: 113, 116; Thorn 2012). Modern accounts of the nature of such reasoning often start with the view of Keynes' *Treatise on Probability* that it is a kind of partial implication (Franklin 2011; Keynes 1921).

On the other hand, an argument has extrinsic probability if it is supported by respectable testimony or authorities. That is the kind of "dialectical" reasoning that Aristotle takes as a paradigm:

> Reasoning is dialectical which reasons from generally accepted opinions (*endoxon*)… *Endoxa* are those which are agreed to by all or most or the wise, that is, to all of the wise or most or the most notable and distinguished of them. Reasoning is eristic if it is based on opinions which appear to be *endoxa* but are really not so… (*Topics* 100a30-b25).

The important role in the Aristotelian tradition played by such arguments from authority opens the way for caricatures of that tradition as an ossified repetition of past authorities, unwilling to look at new evidence and arguments. While that was sometimes true, some skepticism may be entertained about the more extreme versions of that caricature such as that of Pascal's *Lettres provinciales* (Franklin 2001: 97-100).

2. *The late medieval development of probable arguments in law, moral theology and finance*

The period from the twelfth to the fifteenth century saw considerable expansion in the understanding of probable evidence, which formed the context of Renaissance and early modern theorizing. A theory of probable argument developed most centrally in law. That is natural as the essence of law, in the Western tradition derived from Greek and Roman law, is to decide cases by a court publicly evaluating evidence for and against a claim. Evidence for the guilt of an accused person or concerning the authenticity of a document or disputed ownership of goods is typically conflicting and the conclusion not obvious. Even if some cases are clear, it is in difficult cases that the law must develop theory to explain the different strengths of evidence.

The rediscovery of Justinian's massive *Digest* about 1070 led to centuries of development of legal theory in both civil and canon law (less so in English law). Around 1200 the school of Glossators in civil law devised the concept of "half-proof" to cover a single witness (given the biblical rule that two witnesses meant full proof) and partial documentary evidence, while canon lawyers graded presumptions as light, medium or probable, and violent. Conviction in criminal cases was to be on "proofs clearer than light", but, as with modern proof beyond reasonable doubt in Anglo-American law, that was a standard short of deductive truth. The school of Postglossators in the fourteenth century produced an elaborate codification of the theory of grading of evidence, with the works of Baldus de Ubaldis especially being in their printed versions foundational for (continental) law throughout the Renaissance (Franklin 2001: ch. 2). That was especially significant as law occupied a larger part of culture than later, so that many of the intellectual leaders of the early modern world had legal backgrounds: Copernicus, Bacon, Fermat, Huygens, de Witt and Leibniz were lawyers, Montaigne a judge, Valla a notary, Machiavelli, Cardano, Pascal and Arnauld the sons of lawyers, and Petrarch, Rabelais, Luther, Calvin, Donne and Descartes former law students. The tradition-bound culture of law also promotes the transmission of new developments, which are rarely lost.

These conceptual developments overflowed into Catholic moral theory, where the confessional was regarded as a miniature court of canon law and hence manuals for confessors advised on theory applicable to deciding "cases of conscience". Based on Aristotle's saying that less certainty was appropriate in ethics than in mathematics, "moral certainty" (*certitudo moralis*) was said by Gerson (c 1400) and later authors to be a grade of certainty short of deductive or mathematical certainty, but sufficient for confident action in practical matters (similar to "practically certain" in modern English). Debate also arose about what was permitted in case of doubt about the rightness of an action, for example in case of conflicting reasons or authorities. Medieval views were generally "tutiorist", suggesting a risk-averse attitude to possible sin, or "if in doubt, don't". However, as in legal cases, entertaining merely possible doubts made for excessive scruples and was likely to stand in the way of taking necessary action (Franklin 2001: 64-69; Schuessler 2019: 46-55).

Canon law and moral theory clashed with business practice over usury, and the debate about whether payments for risk constituted usury led to important conceptual developments in understanding the nature of risk. Maritime insurance, invented around 1350, reduced or "insured" risk by compensation for loss in return for paying a premium in advance; the premium charged thus involves an estimate of the probability of loss of the ship. It was understood by legal and moral theorists that purchasing risk as an entity separate from the thing at risk involved quantifying a "hope", "peril" or probability (Ceccarelli 2020: ch. 6; Franklin 2021). Similar questions arose and were dealt with in the pricing of life annuities (which involve an estimate of the probable length of life of the buyer), pricing of options contracts, and estimates of the compensation owing for loss of future expected earnings. For example, about 1300 Peter John Olivi considered that in case of compensation for a worker's loss of limbs, "the depriver is required to restore only as much as the probability of profit weighs (*quantum ponderat probabilitas talis lucris*)" (Franklin 2001: 266).

Legal debates on determining the authenticity of documents provided tools that were applicable to the critical evaluation of evidence in historiography, although that was not well-developed in the later middle ages. The reputation of medieval histories for excessive credulity about historical myths and miracle stories is not entirely undeserved, but a start was made on skeptical evaluation of stories, such as in William of Newburgh's severe criticism of the implausibilities in Geoffrey of Monmouth's "history" of King Arthur and his forebears (Franklin 2001: 182-3). The best-known and most successful work in this genre was Lorenzo Valla's exposure of the Donation of Constantine as a forgery, leading to some acute observations by him on how to interpret historical evidence generally (Mori 2020). Similar ideas and vocabulary were found in discussions of conflicting interpretations of scripture (Caldwell 2017: ch. 2; Ghosh 2019).

In medieval works on logical and rhetorical theory, "dialectical syllogisms", in the sense of probabilistic arguments, sometimes appeared, but they were only occasionally connected with the probabilistic arguments of law and finance (Franklin 2001: 121-26).

3. *The late scholastic synthesis on probabilism*

While the Renaissance humanists and the seventeenth century vernacular philosophers and scientists like Descartes, Pascal and Locke have enjoyed a high profile in the history of ideas, at the time the intellectual world and university posts were dominated by their opponents, the scholastics. The disgruntlement of the "new men" expressed itself in persistent criticism of the scholastics' alleged intellectual decrepitude and resistance to change. While that criticism was sometimes justified, as a general judgement this propaganda of resentment need not be taken with total literalness four hundred years later. In their areas of strength, the late scholastics were responsible for conceptual innovations essential to modern thought.

Their strength lay not in observational or experimental science, but in disciplines that require a high level of conceptual analysis – of which probability theory is a central example (overview in Franklin 2012). So chemistry and biology were outside their range, but economic, legal and political theory and linguistics were their home territory. Well-known examples of their work include the contributions of the "School of Salamanca" to the analysis of economic concepts like demand, utility and opportunity cost (Langholm 1998), constitutionalism in political theory that opposed absolute monarchy (Lloyd 1991) and the foundations of international law (Scott 1934, Amorosa 2019). In more strictly scientific areas, they contributed to the analysis of continuous variation that led up to the calculus of Newton and Leibniz (Boyer 1959: ch. 3) and to faculty psychology (Harvey 1975). It was also characteristic of the scholastics to be universalists in knowledge – the most prominent theorists such as Francisco de Vitoria, Domingo Soto, Melchor Cano, Francisco Suarez, Leonardus Lessius and Juan Caramuel Lobkowitz wrote on and made substantial contributions to a wide range of topics.

Probability theory was a subject tailor-made to suit the strengths of the late scholastics, as it requires first and foremost a deep analysis of concepts – concepts that are not purely speculative but founded on understanding how reality works. Their analysis of probabilism in moral theory and of aleatory contracts in law laid the conceptual foundations of later probability theory, including the mathematical theory that stems from the 1654 correspondence of Pascal and Fermat that is usually taken to be the founding event of mathematical probability.

The first thing needed to become oriented in probability theory is to draw the distinction between logical or epistemic probability on the one hand and factual or aleatory or stochastic probability on the other. Logical probability refers to the logical relation of evidence to conclusion, such as in proof beyond reasonable doubt in law or the experimental evidence for a scientific theory; it has nothing to do with randomness or chance. On the other hand, aleatory probability refers to the outcomes of stochastic processes like throwing dice and coins or the random sinkings of ships. It is a matter of frequencies in the real world and the patternless sequence of random events, not to do with knowledge or uncertainty (cf. Franklin 2009: ch. 10; Hacking 2006: ch. 2). Of course there are some connections between the two – the randomness of coin tosses, a fact in the external world, induces uncertainty about future outcomes.

This distinction is implicit though not explicit in late scholastic work on probability. Epistemic probability is dealt with in the continuation of medieval legal and moral debates, leading to the moral doctrine of probabilism, while stochastic phenomena, including games of chance, are grouped under the classification of aleatory contracts. We will consider them in turn.

Renaissance legal theory produced some massive works on presumptions, such as those of Menochio and Mascardi, but little advance in concepts (Franklin 2001: 43-6). The main development came in moral theory concerning action in case of doubt, where medieval tutiorism was generally superseded by the laxer doctrine of probabilism, enunciated by Bartolome de Medina in 1577. It held that in case of doubt about a course of action because there are reasons and authorities on both sides, one might follow a course that is probable, even if the opposite is more probable. “Probable” here means being supported by substantial reasons and/or authorities (something like English “arguable”), rather than “more likely than not on the balance of evidence”, so the position is at least meaningful. Nevertheless it is undeniably strange to regard it as permissible to follow a position which one believes is not the strongest on the available evidence (Franklin 2001: 74-6; Schuessler 2019: 78-85). Despite this, probabilism became near-orthodoxy in Catholic moral theory for the next century, giving Pascal a wide target to aim at in his attack on Jesuit moral theory in general in his *Lettres provinciales* of 1656-57 (Franklin 2001: 94-101; Maryks 2008). The wide currency of these debates ensured that some concept of (epistemic) probability was widely available in early modern intellectual life, well before the appearance of any mathematical theory of probability. Indeed, despite Pascal’s efforts, the vigor of scholastic debate on theoretical questions of probability, taking account of new developments in the wider world, continued into the late seventeenth and eighteenth centuries (Hanke 2019; Hanke 2020; Schuessler 2019: ch. 8).

Probabilism proved especially applicable to politico-ethical questions, whose nature involves sometimes deferring to the opinion of others (with which one may not agree oneself). Is it ethical to put aside one's own opinion on what is right and follow that of the majority, or the prince, or a committee? Should a soldier who doubts the justice of his prince's war refuse to fight in it, given that he knows the prince may be better informed and so have a more probable opinion? (Franklin 2001: 77-79; Schwartz 2013; Schwartz 2019: ch. 6). Given that dissension in councils prevents their effective working, is it acceptable for a member to defer to the decision of the majority although he disagrees with it? (Schwartz 2022). May a prince engage in normally immoral actions such as lying for "reason of state"? According to Jean de Silhon, advisor to Cardinal Richelieu, he should invoke reason of state, "a mean between that which conscience permits and affairs require", because the safety of the state is entrusted to him as a sacred duty. "In doubtful cases he [the minister of state] will always choose what is safest and most advantageous to his master even though the least probable, provided that it is truly probable. In this, he combines two maxims, one of conscience and the other of prudence" (Franklin 2001: 80-81). If one finds advanced civilizations with different religio-philosophical views, such as the Chinese, can one grant those views some kind of provisional acceptance? (Mayer Celis 2015).

In principle, these debates on the grading of probabilistic reasons in law and moral theory could have been applied to evaluating the strength of reasons for factual theses, such as scientific and historical theories. That was not commonly done, but some examples exist. An application to the credibility of the Copernican hypothesis was made by Galileo, as we will see below. In historiography, the leading writer was the Spanish scholastic Melchor Cano.

Cano died in 1560, before Bartholome de Medina's enunciation of probabilism, but in his writings on moral theory he shows similar tendencies to take the conflict of probable reasons and authorities to deliver liberty to the subject who is in doubt about what to do. When there are different probable opinions of doctors on the licitness of contracts – as was typically the case with the complex contracts available in business – Cano holds that either choice is safe (otherwise "all human contracts would cease, provisions necessary to human life would not be made, and republics and provinces would be laid waste"). He comes close to probabilism in holding that one may act against one's own opinion if the opposite course is still safe, though the first course may be safer. Indeed in some cases "it is more probable that a man not only can, but should, act contrary to his own opinion when he considers the other probable". A confessor, for example, should absolve a penitent whose opinion is probable but contrary to the confessor's (Franklin 2001: 74).

Cano's originality lies in applying ideas about probability to a systematization of methods for evaluating the reliability of historical texts, a central topic of his posthumous work on the sources of theology, *Loci theologici* (1562). Giuliano Mori writes "Probability emerges as Cano's core concern. Along with the cognate concepts of credibility, verisimilitude, and plausibility, the notion of *probabilitas* is mentioned no less than 216 times in the *Loci*. Indeed, Cano's entire treatise can be read as an attempt to devise a probative organon where the *loci* are critically discussed and compared with one another, being ultimately placed upon a scale of generally decreasing probability". Cano's development of these ideas, which makes him the central figure in early modern theory on evaluating historical evidence, is described in Mori's article in this issue (Mori 2022).

4. *The late scholastics on aleatory contracts*

The scholastics rightly separated their treatment of the probability of opinions from their treatment of aleatory contracts. The background to the latter lies in the developing risk culture of business. In the Renaissance, a culture of high risk and more explicit discussion of risk met the abilities of the late scholastic schools in conceptual analysis.

Many observers have noted a "risk culture" as increasing in many spheres in the fifteenth century and later. Any business or financial undertaking was by later standards extremely dangerous and recognized to be such (Baker 2021). Even in the art world, both granting and accepting a commission was attended by multiple risks, for example of dissatisfaction on either side (Nelson and Zeckhauser 2008). But the paradigm of a risky enterprise was a sea voyage, as used for dramatic effect in Shakespeare's *Merchant of Venice*, where Antonio the merchant is easily ruined by the nonarrival of his ships. Shakespeare explains the willingness of some to accept low odds for the chance of high gain:

> We all that are engagèd to this loss
> Knew that we ventured on such dangerous seas
> That if we wrought out life, 'twas ten to one;
> And yet we ventured, for the gain proposed
> Choked the respect of likely peril feared (*Henry IV*, part 2, Act 1 Scene 1).

Those numerical odds may be no exaggeration. Sailing into the unknown with Columbus, da Gama or Magellan offered scarcely better odds of return than that.

The late scholastic commentators on legal and moral theory correctly recognized a category of aleatory contracts, where a contract is undertaken whose outcome depends on some chance event. The category included insurance contracts (usually maritime insurance), life annuities, purchase of options and games of chance – in each case, the parties agree beforehand on the terms, but what the contract requires depends on chance events such as the return of a ship, the time of death of an annuitant, or the fall of the dice. Some numerical estimate might be made of those chances, as is done in deciding the premium of an insurance or the stakes in a fair game of chance. But it is hard to know how to make those estimates, and even if they are correctly made, chance determines the actual outcome.

The clarity of understanding reached by the scholastics in these matters is illustrated by Cano's Spanish contemporary, Domingo Soto. In answering the objection that insurance appears to involve a payment for nothing, he compares it to a game of chance:

> For anything that can be estimated at a price, one can receive a fee: to render a thing safe [insure it], which is exposed to peril, can be estimated at a price… we say of a fair game: whether it will rain tomorrow or not, etc.; so in the same way it is permitted to expose a thousand ducats, say, to peril with the hope of making fifty or sixty. There are some who regard it as stupid to allow the peril of someone's ship worth perhaps twenty or thirty thousand, in the hope of making a hundred or a thousand. To this we reply that it is not for us to dispute about prices: these can be just or unjust, but it is for the contracting parties to decide them. But there is no stupidity or folly in accepting this kind of peril at the going price; in fact nothing is more obvious than that insurances can expect to gain. They may lose sometimes, but at other times they accumulate gain (Soto 1569, bk 6 q. 7; Franklin 2001: 286).

That is correct not only in understanding the common nature of insurance and games of chance, but in appreciating that chance in the individual case can even out in the long run, so that insurers make money on average although they can lose in individual cases.

One particular kind of aleatory contract had a low profile in discussion as well as a bad moral reputation, but was to prove conceptually important – games of chance. Lotteries, betting and games of chance also came to attention as a different kind of paradigm of risky decisions – one that might be, though with difficulty, amenable to some kind of exact numerical calculation (Franklin 2001: 278-85, 296-301). Their nature however is quite unlike insurance and annuities which are inductive – the correct prices for insurance and annuities depend on past data (of rates of shipwreck and mortality), whereas the throw of the dice deletes all history and the probabilities of the outcomes depend solely on the symmetries of the faces (and any biases). That makes dice a poor model of most probabilistic reasoning – but is a great mathematical convenience, allowing the development of an exact mathematics of probability (in the sense of history-less stochastic processes) in the correspondence of Pascal and Fermat in 1654.

5. *Scientific reasoning in Galileo: Probable and demonstrative arguments take on mathematical form*

Galileo's achievements included not only strictly scientific discoveries about astronomy and motion but a new method for explaining and defending conclusions in the natural sciences. The standard scholastic method of disputed questions with all kinds of arguments allowed on both sides of a question, including arguments from authority, he found to be inadequate and worthy of mockery. His replacement was however not much like the modern model of scientific method according to which hypotheses generated by any method or none are confronted by observational and experimental tests and either confirmed or falsified. Instead it was a combination of dialectical (in the sense of probabilistic) and demonstrative reasoning, but with both of those given more mathematical form than had been traditional.

The Jesuits, by 1600 leaders in the world of academic science, applied the scholastic method to astronomical questions, treating them as if they were problems of canon law or moral theology. The following passage, written about 1590, is typical of the style of argument; it is the same style as found in, for example, the debates on probabilism, with its mixture of considerations of plausibility and appeals to religious and other authority. It is worth quoting at some length, to convey the exact consistency of the intellectual bog from which modern science had to extract itself.

> Fourth question: Are the heavens incorruptible?
>
> The first opinion is that of Philoponus… since the heavens are a finite body, if they were eternal they would have an infinite power… it seems that Holy Scripture teaches generally that the heavens are corruptible, especially Isaiah ch. 51, "the heavens shall vanish like smoke", and 34, "the heavens shall fold up like a book"…
>
> The second opinion is that of Aristotle, who was the first, as Averroes notes, to teach in this book that the heavens are ungenerated and therefore incorruptible… Finally, the intelligences achieve their perfection in moving the heavens, and so the heavens must be incorruptible.
>
> For the solution of the difficulty, note that in truth we can speak of the heavens, just as we can of anything created, in two ways: first, from their very nature, whether, namely, they have by their nature some intrinsic principle through which they can be corrupted; second, whether only through the absolute power of God, whereby God

can make everything return to nothing, they are corruptible… the Council of Constance defines that angels and human souls are immortal by divine grace…

I now say, first: if we speak of the heavens according to their nature, and if corruptible be taken to signify anything that has in itself a passive potency whereby it can be corrupted by an active power proportioned to it, it is probable that the heavens are corruptible…

Second proof: because the heavens were made especially for man; therefore they ought not to be incorruptible, for otherwise they would be more noble than man…

I say, second: it is more probable that the heavens are incorruptible by nature. Proof of this, first: because it is more conformable to natural reason, as is apparent from the arguments of Aristotle… The second argument of Aristotle is drawn from experience: for it has been found over all preceding centuries that no change whatever has taken place in the heavens. And this argument has the greatest force… A third argument is drawn from the consensus of all peoples… Fourth, from the etymology of the word… (Wallace 1977: 93-99).

What is surprising is that the author of this rubbish is the young Galileo himself. It is from unpublished notes, which have been found to be a collage of the lecture notes of a number of Jesuit professors at the Collegio Romano, dating from the late 1570s and the 1580s. These professors made considerable play of probabilities and their comparisons, in the same way as the passage just quoted. Galileo later wrote:

If what we are discussing were a point of law or of the humanities, in which neither true nor false exists, one might trust in subtlety of mind and readiness of tongue and in the greater experience of the writers, and expect him who excelled in those things to make his reasoning more plausible, and one might judge it to be the best. But in natural sciences whose conclusions are true and necessary and have nothing to do with human will, one must take care not to place oneself in the defense of error; for here a thousand Demostheneses and a thousand Aristotles would be left in the lurch by every mediocre wit who happened to hit upon the truth for himself (Galileo 1967: 53-54).

Plainly the scholastic *quaestio* was not working well as a vehicle for scientific arguments.

Galileo proposed to re-establish science, in particular physics and astronomy, on a sound basis. His counterattack was two-pronged. In his more popular pro-Copernican *Dialogue Concerning the Two Chief World Systems*, he developed probable arguments in a style that eschews arguments from authority but develops the scholastics' "intrinsic probability". In his more fundamental work on dynamics, *Discourses and Mathematical Demonstrations Relating to Two New Sciences*, completed in old age during his house arrest by the Inquisition, he revived the Aristotelian ideal of demonstration, but enhanced by mathematical proof. We will examine these in turn.

As Nicholas Jardine shows (1991), Galileo's 1632 *Dialogue*, written in Italian for a lay audience, is a self-conscious amalgam of demonstrative, dialectical and rhetorical argument. Galileo is well aware of which he is using at any point and what form of expression is appropriate to each. He claims demonstrative certainty for his refutations of his Aristotelian opponents' arguments against the motion of the earth and for his argument that the tides need a Copernican explanation; however, his demonstrative arguments are more mathematical than most previous discussions, which tended to keep separate arguments on the nature of celestial bodies from mathematical calculations of orbits. His rhetorical strategies of praise and blame, jokes, parodies and misrepresentations of his opponents are standard devices of Renaissance rhetoric; they include the old trope of dismissing opposing arguments as "mere rhetoric" (Jardine 1991, section VII; Vickers 1983). Dialectical arguments are particularly prominent, and well-suited to the dialogue form that permits the arguments on both sides of a question to be stated as strongly as possible and balanced.

One of Galileo's probabilistic arguments for Copernicanism, is, like his demonstrative arguments, more quantitative than anything that went before. It is an example of what are now called extrapolation arguments or Mill's "Method of concomitant variation", which argue that a pattern visible in some region (of space or time) can be expected to continue to hold true outside that region (but less reliably, the farther the extrapolation goes beyond the observed region [Franklin 2013b: section 2]).

Galileo is arguing that the Copernican system has spheres moving more slowly the farther they are from the sun, whereas the Ptolemaic system has to break that pattern suddenly by having the most distant sphere, that of the fixed stars, rotate once a day. His argument includes parallels with the orbits of the moons of Jupiter, recently discovered by himself, as well as with the long-known orbits of the planets:

> The improbability is shown for a third time in the relative disruption of the order which we surely see existing among those heavenly bodies whose circulation is not doubtful, but most certain. The order is such that the greater orbits complete their revolutions in longer times, and the lesser in shorter: thus, Saturn, describing a greater circle than the other planets, completes it in 30 years; Jupiter revolves in its smaller one in 12 years, Mars in 2; the moon covers its much smaller circle in a single month. And we see no less sensibly that of the satellites of Jupiter the closest one to that planet makes its revolution in a very short time, that is in about 42 hours; the next, in three and a half days; the third in 7 days and the most distant in 16. And this very harmoni-

ous trend will not be a bit altered if the earth is made to move on itself in twenty-four hours. But if the earth is desired to remain motionless, it is necessary, after passing from the brief period of the moon to the consecutively larger ones, and ultimately to that of Mars in 2 years, and the greater one of Jupiter in 12, and from this to the still larger one of Saturn whose period is 30 years – it is necessary, I say, to pass on beyond to another incomparably larger sphere, and make this one finish an entire revolution in twenty-four hours (Galileo 1632/1967: 118-19).

Remarkably, Galileo's scholastic opponents were capable of replying with an argument of the same form. The Jesuit Amicus suggested that though the earth was smaller than the heavens, it was heavy, and as water was more mobile than earth, air than water, and fire than air, so the celestial bodies were more suited to motion in their place than the earth in its (Grant 1984: 58). It is by no means unreasonable to think that a very distant sphere made of a weightless quintessence might revolve in twenty-four hours more easily than a massive solid earth that would be expected to shake violently and throw off the objects on its surface.

In another clear case of quantitative probabilistic reasoning, Galileo showed how to fairly adjust error-prone astronomical observations to reach a correct conclusion on the distance from the earth of the nova of 1572 (Franklin 2001: 160-61). The debates showed the successful movement of probabilistic argument into the domain of quantitative sciences, the area in which the Scientific Revolution was to transform the world of ideas.

Galileo's demonstrative reasoning, like his dialectical reasoning, was more mathematical than what had gone before. He was the first (except for Stevin) of a line of seventeenth-century thinkers who applied mathematics to physics – Descartes, Pascal, Huygens, Barrow, Newton and Leibniz, to name the most prominent. They were captivated by the Aristotelian/Euclidean demonstrative model of science as applicable not just to the abstract world of pure mathematics but to applied mathematics. It was apparently realized in Euclid's *Optics* and Archimedes' mechanics, according to which pure thought could establish principles for empirical reality (Franklin 2017).

The story of seventeenth-century applied mathematics is more like an extension of scholasticism (in a mathematical direction) than a retreat from it (into for example Baconian empiricism). Where the old scholastics had been excessively modest about the possibilities of reducing the contingent physical world to quantitative order and demonstration, the mathematicians showed it could be done by doing it. Early modern applied mathematics is the pursuit of the Aristotelian-scholastic vision by other means.

While optics and statics were the two most successful inherited models of applied mathematics, the one most important for later developments was dynamics, the study of motion and its causes. That was the field which was to contain the most central developments of the late seventeenth century, the calculus of Newton and Leibniz and Newton's gravitational theory. The Merton School and Nicole Oresme in the fourteenth century had made important initial progress in distinguishing speed from acceleration, in proving the "Merton mean speed theorem" that connected uniform acceleration with distance travelled, and in inventing graphs of functions (Boyer 1959: ch. 3; Sylla 1986). But thereafter progress stalled for over two centuries. Galileo restarted progress with his discovery of the uniform acceleration of heavy bodies dropped from rest.

In the course of that discovery Galileo provided an astonishing demonstration of the power of a priori mathematical reasoning to give insight into the behavior of physical reality, independently of observational evidence. When first considering what law should be followed by falling heavy bodies, once it is accepted that they go faster as they fall, he wondered about how to distinguish between the two simplest theories: the perhaps most natural one that speed is proportional to distance travelled from the start, and the equally simple but perhaps less natural one that speed is proportional to time from the start (that is, the body is uniformly accelerated, which is the correct answer).

Galileo realized, and was able to demonstrate, that the first theory needs no observations to refute it. It is absolutely impossible that acceleration should be proportional to the distance travelled. Galileo argues thus:

> When speeds have the same ratio as the spaces passed or to be passed, those spaces come to be passed in equal times; if therefore the speeds with which the falling body passed the space of four braccia were the doubles of the speeds with which it passed the first two braccia, as one space is double the other space, then the times of those passages are equal; but for the same moveable to pass the four braccia and the two in the same time cannot take place except in instantaneous motion (Galileo 1638/1974: 160; Norton and Roberts 2012).

That reasoning is less than totally clear and would be assisted by a diagram (provided in Franklin 2017).

From the falsity of the theory of the proportionality of speed to distance there does not follow, of course, the truth of the (true) alternative theory of the proportionality to time. But it leaves that theory as the most natural simple alternative, guiding the effort of empirical confirmation. Galileo has shown, in the fashion of Aristotle's *Posterior Analytics*, that purely mathematical reason has implications for what can possibly be observed in physical reality.

Both dialectical and demonstrative reasoning were central to the scientific awakening in the modern world, but in forms newly clothed in mathematics.

6. *Conclusion: The scholastics and quantitative probabilistic argument*

To appreciate how Renaissance and early modern authors understood the evaluation of uncertain evidence, certain revisions to received ideas of intellectual history are needed. Firstly, it requires taking seriously Aristotle's category of objectively weighty dialectical (or probabilistic) reasons. They are neither deductive arguments nor of merely rhetorical of psychological force, but give substantial logical support for conclusions, short of proof (in law, science or whatever their subject matter may be). That category of argument has a history, just as deductive logical argument and rhetoric do, but it needs to be disentangled both from those two subjects and from the history of the particular topics of such arguments (such as law or moral theory).

Secondly, it requires taking seriously the late scholastic tradition as the intellectual leaders in many fields into the seventeenth century, free from any after-effects of the anti-scholastic propaganda of humanists and of early modern philosophers writing in the vernacular. In fields where progress could be made by conceptual analysis, such as argument forms and probability, the scholastics remained in the forefront of intellectual progress.

Thirdly, it requires taking seriously the better understanding of the possibilities of mathematics, as first revealed mainly by Galileo. He showed that in the analysis of both motion and the force of arguments, attention to continuous variation and its quantification could advance the project of Aristotle's *Posterior Analytics*, of demonstrating certainties present in the real world and allowing the human mind to understand why they must be so.

With those revisions in place, we can see that the late scholastic theory of probable arguments was one of the leading achievements of early modern thought.

James Franklin
University of New South Wales, Sydney (Australia)
j.franklin@unsw.edu.au

References

1. Primary sources

Aristotle, 1991, *Rhetoric*, trans. George A. Kennedy as *Aristotle 'On Rhetoric': A Theory of Civic Discourse*, Oxford University Press, New York.

Aristotle, 1989, *Topics*, trans. E.S. Forster, Harvard University Press, Cambridge, MA.

Galileo, 1632/1967, *Dialogue Concerning the Two Chief World Systems*, trans. S. Drake, 2nd ed, University of California Press, Berkeley and Los Angles.

Galileo, 1638/1974, *Two New Sciences*, trans. S. Drake, University of Wisconsin Press, Madison.

Soto, Domingo, 1569, *De iustitia et iure*, Lyons.

2. Studies

Amorosa, Paolo, 2019, *Rewriting the History of the Law of Nations: How James Brown Scott Made Francisco de Vitoria the Founder of International Law*, Oxford University Press, Oxford.

Baker, Nicholas Scott, 2021, *In Fortune's Theater: Financial Risk and the Future in Renaissance Italy*, Cambridge University Press, Cambridge.

Boyer, Charles B., 1959, *The History of the Calculus and its Conceptual Development*, Dover, New York.

Bronstein, David, 2016, *Aristotle on Knowledge and Learning: The Posterior Analytics*, Oxford University Press, Oxford.

Caldwell, Melissa, 2017, *Skepticism and Belief in Early Modern England,* Routledge, London.

Ceccarelli, Giovanni, 2020, *Risky Markets: Marine Insurance in Renaissance Florence*, Brill, Leiden.

Franklin, James, 2001, *The Science of Conjecture: Evidence and Probability before Pascal*, Johns Hopkins University Press, Baltimore.

—, 2009, *What Science Knows: And How It Knows It*, Encounter Books, New York.

—, 2011, "The Objective Bayesian Conceptualisation of Proof and Reference Class Problems", in *Sydney Law Review*, 33: 545-561.

—, 2012, "Science by Conceptual Analysis: The Genius of the Late Scholastics", in *Studia Neoaristotelica*, 9: 3-24.

—, 2013a, "Probable Opinion", in Peter Anstey, ed., *The Oxford Handbook of British Philosophy in the Seventeenth Century*, Oxford University Press, Oxford: 349-72.

—, 2013b, "Arguments Whose Strength Depends on Continuous Variation", in *Informal Logic*, 33: 33-56.

—, 2017, "Early Modern Mathematical Principles and Symmetry Arguments", in Peter Anstey, ed., *The Idea of Principles in Early Modern Thought*, Routledge, New York, 16-44.

—, 2021, "Quantifying Risks: Traditions and Practices in Medieval Western Christian World", in Matthias Heiduk, ed., *Prognostication in the Medieval World*, De Gruyter, Boston, vol. 1, 697-710.

Ghosh, Kantik, 2019, "'And so it is licly to men': Probabilism and Hermeneutics in Wycliffite Discourse", in *Review of English Studies*, 70: 418-36.

Grant, Edward, 1984, "In Defense of the Earth's Centrality and Immobility: Scholastic Reaction to Copernicanism in the Seventeenth Century", in *Transactions of the American Philosophical Society*, 74 (4): 1-69.

Hacking, Ian, 2006, *The Emergence of Probability: A Philosophical Study of Early Ideas About Probability, Induction and Statistical Inference*, 2nd ed, Cambridge University Press, Cambridge.

Hanke, Miroslav, 2019, "The Scholastic Logic of Statistical Hypotheses: *Proprietates terminorum, consequentiae, necessitas moralis,* and *probabilitas*", in *Journal of Early Modern Studies*, 8: 61-82.

—, 2020, "Late Scholastic Analyses of Inductive Reasoning", in *Studia Neoaristotelica*, 17: 35-66.

Jardine, Nicholas, 1991, Demonstration, Dialectic, and Rhetoric in Galileo's *Dialogue*, in Donald R. Kelley and Richard H. Popkin, eds, *The Shapes of Knowledge from the Renaissance to the Enlightenment*, Kluwer, Dordrecht, 101-21.

Harvey, E. Ruth, 1975, *The Inward Wits: Psychological Theory in the Middle Ages and Renaissance*, Warburg Institute, London.

Keynes, John Maynard, 1921, *A Treatise on Probability*, Macmillan, London.

Langholm, Odd, 1998, *The Legacy of Scholasticism in Economic Thought*, Cambridge University Press, Cambridge.

Lloyd, Howell A., 1991, "Constitutionalism", in *The Cambridge History of Political Thought*, *1450-1700,* ed. J.H. Burns, Cambridge University Press, Cambridge: 254-97.

Maryks, Robert A., 2008, *Saint Cicero and the Jesuits: The Influence of the Liberal Arts on the Adoption of Moral Probabilism*, Routledge, London.

Mayer Celis, Leticia, 2015, *Rutas de incertidumbre: Ideas alternativas sobre la génesis de la probabilidad, siglos XVI y XVII*, Fondo de Cultura Económica, Mexico City.

McKirahan, Richard D., 1992, *Principles and Proofs: Aristotle's Theory of Demonstrative Science*, Princeton University Press, Princeton.

Mori, Giuliano, 2020, "Truth, Verisimilitude and Criticism in Lorenzo Valla: Dialectics and Historiography", in *Quaestio*, 20: 417-38.

—, 2022, "Melchor Cano and the Conundrum of Historical Scholarship: Probability and Criticism in the Sixteenth Century", in this volume.

Nelson, Jonathan K. and Richard Zeckhauser, 2008, *The Patron's Payoff: Conspicuous Commissions in Italian Renaissance Art*, Princeton University Press, Princeton.

Norton, John D. and Bryan W. Roberts, 2012, "Galileo's Refutation of the Speed-Distance Law of Fall Rehabilitated", in *Centaurus* 54: 148-64.

Schuessler, Rudolf, 2019, *The Debate on Probable Opinions in the Scholastic Tradition*, Brill, Leiden.

—, 2021, "Casuistry and probabilism", in Harald E. Braun, Erik De Bom, and Paolo Astorri, eds, *A Companion to the Spanish Scholastics*, Brill, Leiden, 334-60.

Schwartz, Daniel, 2013, "Probabilism, Just War and Sovereign Supremacy in the Work of Gabriel Vázquez", in *History of Political Thought*, 34: 177-94.

—, 2019, *The Political Morality of the Late Scholastics: Civic Life, War and Conscience*, Cambridge University Press, Cambridge.

—, 2022, "Madariaga, Probabilism and the Polysynodial Regime of the Spanish Monarchy", in *Global Intellectual History*, online.

Scott, James Brown, 1934, *The Spanish Origin of International Law: Francisco de Vitoria and his Law of Nations*, Clarendon, Oxford.

Sylla, Edith, 1986, "Galileo and the Oxford Calculatores: Analytical Languages and the Mean-Speed Theorem for Accelerated Motion", in W.A. Wallace, ed., *Reinterpreting Galileo*, Catholic University of America Press, Washington, 53-108.

Thorn, Paul D., 2012, "Two Problems of Direct Inference", in *Erkenntnis*, 76: 299-318.

Vickers, Brian, 1983, "Epideictic Rhetoric in Galileo's *Dialogo*", in *Annali dell'Istituto e Museo di storia della scienza di Firenze*, 8 (2): 69-102.

Wallace, William A., 1977, *Galileo's Early Notebooks: The Physical Questions*, Notre Dame University Press, Notre Dame, IN.

The Problem of Certainty and the Changing Status of Probable Proofs

Barbara J. Shapiro

Abstract: This essay offers a preliminary survey of the development of probabilistic proofs in the early modern period. It examines several disciplines and their adoption of a mode of proof which embraced a scale of probability and whose high point was variously labeled "satisfied conscience," "mind," and "understanding," "moral" as opposed to "mathematical certainty" or "demonstration," and proof "beyond reasonable doubt." Although my focus is on England, I view this essay as part of a broader account that would include French, Italian and Spanish developments and earlier and later periods. I emphasize the long-lived ancient distinction between probability and certain knowledge, and between rhetoric and "science," arguing that these distinctions played a crucial role in shaping thinking about proof. My account highlights the role of witnessing, the criteria for evaluating testimony, and the possibility of reaching moral certainty, that is, belief beyond reasonable doubt. The first discipline to be examined is history, a discipline characterized by tension between the humanist desire for a rhetorically persuasive narrative on the one hand and truth telling norm on the other. The next to be examined are the probabilistic proofs adopted in several religious contexts. There follows a comparison of continental and English approaches to legal proof. The most challenging intellectual area to be examined is the natural sciences. There I examine efforts to find a probabilistic alternative to "science," "demonstration" and "mathematical certainty. Scientists sought to adopt "hypothesis" as a means of linking "matters of fact" with generalizations, principles and theory. A brief treatment of Locke and his philosophical successors suggests how probabilistic proofs penetrated English thinking. The concluding section includes a discussion of disciplinary differences and suggestions for a more complete treatment of probable but believable proof.

1. *Introduction*

This essay offers a preliminary survey of the development of probabilistic proofs in the early modern period. It examines several disciplines and their adoption of a mode of proof which embraced a scale of probability and whose high point was variously labeled "satisfied conscience", "mind", and "understanding", "moral" as opposed to "mathematical certainty" or "demonstration" and proof "beyond reasonable doubt. "Although my focus is on England, I view this essay as part of a broader account that would include French, Italian

philinq X, 2-2022, pp. 117-137
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.423

and Spanish developments and earlier and later periods. I emphasize the long-lived and hugely important ancient distinction between probability and certain knowledge, and between rhetoric and "science", arguing that these distinctions played a crucial role in shaping later thinking about proof. My account highlights the role of witnessing, the criteria for evaluating testimony, and the possibility of reaching moral certainty, that is, belief beyond reasonable doubt.

The first discipline to be examined is history, a discipline characterized by tension between the humanist desires for a rhetorically persuasive narrative on the one hand and the truth telling norm on the other. The next to be examined are the probabilistic proofs adopted in several religious contexts. There follows a comparison of continental and English approaches to legal proof. The most challenging intellectual area to be examined is the natural sciences. There I examine efforts to find a satisfying probabilistic alternative to "science", "demonstration" and "mathematical certainty". Scientists sought to adopt "hypothesis" as a means of linking "matters of fact" with generalizations, principles and theory. A brief treatment of Locke and his philosophical successors suggests how probabilistic proofs penetrated English thinking. The concluding section includes a discussion of disciplinary differences and suggestions for a more complete treatment of probable but believable proof.

Before beginning with the early modern disciplines, it should be emphasized that the ancient Greeks, focused on what became the long-lasting Aristotelian division between probability on the one hand and "science" or "demonstration" on the other. For many centuries the term "science" did not refer to what we call "natural science", and instead referred to "certainty" or "demonstration". Although the Roman rhetoricians Cicero's and Quintilian's treatment of forensic oratory emphasized persuasiveness rather than proof or truth, their compilations of personal characteristics such as birth, education, life style and gender, which could be used for positive and negative characterizations of individuals, would, with some additions, be adopted by several early modern truth-seeking disciplines as a means of evaluating witness testimony. The evaluation of witness testimony would play a prominent role in the proofs offered by early modern historians, theologians, jurists and naturalists as would the rhetorical categories of direct and indirect proofs, that is, testimony and "circumstances". Witness testimony was said to provide "direct proof". Circumstances that would later be called "circumstantial evidence" was said to provide "indirect proof".

Early Christianity brought to the fore questions of belief, correct belief and heresy and how these might be identified. During the medieval period several religious institutions including the courts dealt with probability issues.

My focus is on England in the early modern period c. 1500-1800. I discuss how several intellectual endeavors made use of probabilistic approaches to knowledge-making and the degree to which they rejected approaches that prioritized "demonstration" or "mathematical certainty".

Renaissance humanists played a role in this development when they initiated the revival of classical rhetoric, a discipline that emphasized persuasiveness rather than proof or "certainty" in connection with moral and political issues. They were attracted to considerations of "prudence" which did not aspire to universal principles. In addition to their attacks on scholastic modes of thinking, humanist involvement in poetry or "poesy" resulted in discussions of the relative value of "fact" and "fiction", with some literary voices insisting that the fictions of poetry were superior to factual, historical accounts for instilling moral lessons. The polarity between rhetoric and logic, probability and certainty, remained.[1]

2. *History*

Typically associated with humanist endeavors, early modern historical writing, unlike other disciplines, exhibited tension between the two norms of persuasiveness and truth. Historical writing was to be both persuasive in teaching about morals and politics and committed to truthful reporting. Despite the historian's commitment to reporting nothing but truth, they were nevertheless permitted leeway to create imaginary speeches and reorder events in order to present a persuasive narrative. History, typically centered on the lives and actions of great men, was thought to be best composed by those who witnessed the events in question. The ancient historians, Caesar, Polybius and Tacitus were admired both for their style and their instructive capabilities. Historians were to adhere to norms of truthfulness and impartiality and to the rejection of falsehood and fiction. The truth standard drew historians to epistemological issues of what kind of knowledge might or might not be available for past events and to fact finding methods that focused on the credibility and reliability of witnesses. Cicero's first law of history was to tell nothing but the truth; while the second granted permission to manipulate historical material in order to make the narrative more convincing. This tension is echoed by a seventeenth-century critic of Bulstrode Whitlocke, who wrote that he came "up to the dignity of a historian" on some occasions and at others simply reported "occurrences diary wise" without refining them "to the perfection and true standard of a History (Whitelocke 1682: "To the reader").

Early modern historians did not dispute that history, by its very nature, was incapable of mathematical certainty or metaphysical truth but nevertheless insisted it might make statements worthy of "belief", a term that also frequently

[1] Ramus, however, reduced rhetoric to "style" and "delivery".

appears in other disciplines concerned with probable proof. Some historians, particularly those in France, wrote in opposition to skeptics who denied that any knowledge was possible. The anti-skeptics were necessarily led to consider the nature of historical knowledge.

A succinct description was offered by Seth Ward in the mid-seventeenth century. Ward insists that the absolute certainty of demonstration was inappropriate for matters of fact. If a history claimed to be "within in the bounds of evidence and certainty", it must be considered whether the author "had sufficient means of Knowledge", whether he was "an eye or ear witness" and whether the things reported were "publicly acted and known". It was necessary to consider "the qualities of the relators", and their "understanding, sufficiency and Integrity… as well a possible bias or interest". When reporters met the appropriate criteria one could believe in events, places and other matters of fact that were not "reasonably absurd". It was, therefore, "rational" to believe an unbiased, firsthand account of historians such as Caesar's account of the war against the Gauls" (Ward 1667: 84-88, 98-106).

For mid-seventeenth-century historian, Thomas Fuller, "If the Witnesses be Suborned, the Record falsified, or the Evidence wrested", posterity neither "can judge rightly of the action of the present time" or make a "certain Judgment of the Ages past" (1659: 18). Several decades later Lord Bolingbroke wrote that the number of witnesses as well as the character of witnesses must be considered: "If there be none such he will doubt absolutely; if a little… he will proportion his assent or dissent accordingly" (1971: xxxvii).

Even Thomas Hobbes, who sought a demonstrative civil philosophy, believed, "The register of Knowledge of Fact is called History" and it included both civil and natural history (1962: 69). In many instances facts were "no less free from doubt than free and manifest Knowledge… There being things in which we believe from the Report of Others of which it is impossible to imagine any cause of Doubt" (Hobbes, 1928: pt. l, ch. 6, sec. 9).

Those defending the possibility of historical knowledge typically began with the distinction between demonstration and probability, arguing that the latter category ranged from low to high probability. Well substantiated facts by credible witnesses might yield probable knowledge but not demonstration. Accurate and credible accounts of past events were therefore possible. History fell into the category of the probable, yet could claim a kind of certainty appropriate for "matters of fact" (cf. Shapiro 1985: 119-62). The tension between the literary and rhetorical aspects and the norms of impartiality and truthfulness which characterized early modern historians continues to be heard in modern disputes about the nature of history, its rhetorical features and its commitment to impartiality and truth.

3. *Religion*

Religious practices and controversies frequently centered on issues of probability and certainty. Casuistry, a method of moral decision making, was the creation of medieval clerics to assist priests in guiding those seeking confession. It is relevant to our discussion because it explored decision-making under conditions of uncertainty. It consisted of probable arguments rather than evidence or proof. The introduction of Protestant casuistry is significant because decisions were to be made by individuals without the intervention of a skilled confessor. Judgments of conscience could not simply defer to authority or to the advice of another individual, a modification that brought English casuistry in contact with epistemological issues.[2]

William Perkins, a well-known sixteenth-century Puritan, wrote that God had "erected a tribunal" in "conscience", which was the "highest judge that is or can be under God". The "courts of man and their authority are under conscience" (1966: x, 3, 5, 9, 32). William Ames, another Puritan cleric, stressed that conscience involved rational decision making by the "intellect" (1639: 2-3). Jeremy Taylor in 1660 adopted the familiar distinction between "mathematical" or "demonstrative" certainty and "moral certainty". Taylor stressed the role of the intellect, noting that conscience is the "mind", the product primarily of the "understanding". Although non-demonstrative thinking could only be probable, on some occasions the "probable or thinking conscience" might be "made certain by accumulation of many probabilities operating the same persuasion". Taylor called the result "moral demonstration" (1660: 3-4, 30, 55). Robert South, another Restoration era Anglican cleric, similarly insisted that mathematical certainty was unnecessary in moral decisions. It was "sufficient" if the decision rests "upon the grounds of a convincing probability that shall exclude all rational grounds of doubting it" (1718: 119; cf. also: McAdoo 1949: 77). Conscience must consider reasonable doubts, but not be excessively doubtful.

John Sharp rejected the notion that the "certainty of Moral sciences could rise no higher than probable Opinion". "Sometimes the Evidence is so strong, as to command an entire Assent of his Understanding, an Assent so full that not the least mixture of doubtfulness in it". When evidence was "not as strong… as to exclude all Doubt" it was labeled "opinion" or "probable persuasion". Sharp referred to degrees of probability and to "satisfaction" of the "mind", as well as to the "resolved", "scrupulous", and "erroneous" con-

[2] Many Catholic theologians followed "laxism", a practice allowing one to safely choose a side if approved by a single authority, even though the other side was more probable. "Tutiorism" permitted taking the safer side when positions were of equal weight.

science (1688: 4, 13). It is noteworthy that Sharp now writes about "evidence" rather than arguments or authorities.

Continental philosopher Samuel Pufendorf also rejected the position that the "certainty of Moral sciences" could rise no higher than "probable Opinion". The rightly informed conscience was "true and certain and sees no reason to doubt" (1703: 11, 17-18, 21). Henry Sacheverell expressed similar views in the early eighteenth century (1706: 6-7. This view of conscience was disseminated to a large audience in popular dictionaries and encyclopedias (cf. Chambers 1728: xx, ix [I used 1738 ed]; Johnson, 1755-56: unpaginated).

The convergence of "conscience", "mind" and "understanding" was important because it made it easier for more secular thinkers such as John Locke to explore the "human understanding". It also suggests why in instructing juries some English judges adopted the language of "satisfied conscience", "satisfied understanding" and belief reaching "moral certainty".

A somewhat similar approach to knowledge was to be found in sermons and treatises providing rational proofs for belief in Christianity and Scripture. In the early seventeenth century Hugo Grotius' widely read *Truth of the Christian Religion* adopted the familiar Aristotelian dichotomy between probability and demonstration to argue, again following Aristotle, that there were different proofs for different things. While matters of faith were not as certain as mathematical demonstration or the immediacy of sensation, it was possible to reach sound conclusions in matters of fact. A reasonable person, that is one without an excess of passion or prejudice, could reach sound conclusions as to Christian doctrine" (Grotius 1680: 94).

The need to provide a rational proof for Scripture became a pressing issue in England in the 1640's and 1650's when radical religious sects often claimed that faith was based on intuition or direct illumination from God. This need for rational proofs of Scripture again became pressing during the latter part of the seventeenth century when Christians replied to challenges by atheists, free thinkers and deists. Those claiming the truth of revelation and Biblical miracles relied primarily on the argument from credible witnesses, that is, the Apostles and those who heard them. The criteria for witness credibility were largely derived from classical rhetorical texts.

Cleric Samuel Clarke defended revealed religion relying on testimony of the Apostles that provided "the most credible, certain and convincing Evidence, that was ever given to any Matter of fact in the World". There was "no more reason to doubt" the "principal facts of the Christian saga" than the facts of "any History or any ancient matter of fact" (1711: 13, 258, 327).

Concern with levels of certainty in English anti-Catholic polemic was at its highpoint during the Restoration era when Roman Catholics asserted the infallibility of Catholic doctrine and their opponents defended belief in Scripture on the basis of moral certainty. William Chillingworth had already used the moral certainty approach in his 1638 *Religion of Protestants* (cf. Chillingworth 1638: 31-34, 38; see also: Orr 1967). John Tillotson, an influential Restoration latitudinarian cleric, employed similar arguments to refute the possibility of an infallible oral tradition while arguing for the reasonableness of, but not absolutely certainty of, belief in Scripture, history, or the existence of America. Moral certainty was possible in matters of fact and the events reported in Scripture belonged in that category (1666: 20, 30, 94).

Proponents of the "rational" or "natural" theology of the late seventeenth and eighteenth centuries similarly employed the distinction between "science" which admitted no doubt and "probable" reasoning which ran the gamut from disbelief, to doubt, to the summit of probable knowledge, "moral certainty". In 1675 Bishop John Wilkins' often reprinted *Principles and Duties of Natural Religion* provided rational proofs for the existence of God and his attributes, the existence of an immortal soul, and duties that could be proved without revelation. Wilkins' treatise distinguished between physical, mathematical certainty and moral certainty, the last being the highest level of certainty attainable in the realm of probability. Moral certainty was "assent which doth arise from such plain and clear Evidence that doth not admit of any reasonable Cause of doubting". Evidence "may be so plain that every man whose judgment is free from prejudice will consent upon them" and will not "admit of any reasonable doubt concerning them (Wilkins 1675: 7-8, 10-11, 30).

Unlike proof for belief in Scripture, proofs for the principles of natural theology could not be supported by witness testimony. Instead such proofs relied on inferences drawn from the "matters of fact" of the natural world. Natural theology, or physico-theology as it was sometimes called, proved particularly attractive to members of the scientific community who promoted the collection of credible observations of natural phenomena. The inferential knowledge of the natural theologians was similar to the jurists' use of "circumstances" and later "circumstantial evidence".

John Ray's *Wisdom of God Manifested in the Works of Creation*, perhaps the most popular work of natural theology, took its proofs "from the Effects" of nature which were exposed "to every man's view". Plants, animals and other natural phenomenon, he argued, could only have been produced by an infinitely wise beneficent agent. The study of "God's handiwork", proved the deity's existence to a moral certainty (1691: "Preface to the reader"). Boyle lecturer Samuel Clarke relied on "matters of fact", "credible witnesses", "reasonable and sufficient proof" and "moral certainty" (1706: 3). George Campbell argued that belief in God "carries a very high degree of probability, which leaves little room to doubt": "Why call a thing in doubt of which we have as good evidence as human nature is capable of receiving" (1988: 50; cf. also: Butler 1736: 204, 257, 323, 328-29).

Still another use of "probability" emphasized human fallibility to combat Roman Catholic claims to infallibility that justified religious dogmatism and persecution. Already in the sixteenth century, Erasmus, arguing against Luther, emphasized human fallibility, insisting that religious doctrine fell into the category of "opinion". He recommends that "we define as little as possible, and in many things leave each one free to follow his own judgment" (1961: 5, 7, 9-10). Similar arguments were offered in Sebastian Castellio's attack on the Calvinist burning of Michael Servetus for heresy. Italian Protestant Joseph Acontio emphasized the human capacity for error and noted that differences of opinion were exhibited by even the wisest of men. He distinguished the fundamental articles of Christianity believed by all from lesser doctrines where dispute was acceptable. Persecution on the basis of "opinion", a lower level of probability than moral certainty, was indefensible.

From the early seventeenth century Protestants such as Lord Falkland contested Catholic claims to infallibility by arguing that in religious questions it was necessary to be satisfied with probabilities because there was little in nature capable of demonstration except "lines and numbers". William Chillingworth invoked "moral certainty" for things "believed" but not "known" to argue that the fundamentals of religion could be held with a high degree of certainty. Non-fundamentals remained in the lower category of "opinion". Restoration latitudinarians, many of whom were active in promoting natural religion and rational support for belief in Scripture, adopted the distinction between fundamentals and non-fundamentals. Fundamentals were few. Non-fundamentals, such as ceremonies, vestments, forms of prayer and most theological doctrines, were opinions that might or might not be true, and were not required for salvation. "Opinion" was increasingly being viewed as ranging from doubt to the pinnacle of beyond reasonable doubt. Dogmatism, with excessive zeal about opinions, led to "Disputes, Hatreds, Separations, and Wars" (Glanvill 1676: Essay IV, 27, 53, 54). Latitudinarians believed that a mistaken theory of religious knowledge led to unnecessary persecution and religious war. Concentration on religious fundamentals would permit diversity on less fundamental issues (cf. Glanvill, 1668: 149; Sprat, 1958: 33-34, 53-54; see also: Shapiro 1968).

The numerous publications devoted to rational proofs for Christianity or natural religion, and arguing against claims to infallibility, insured that English readers became familiar with probabilistic ways of thinking about proof, that is, that appropriate evidence might lead to moral certainty and belief beyond reasonable doubt.

4. *Law and Courts*

Decisions in disputes between individuals and prosecution for violation of law for many centuries relied on ordeals and other irrational proofs, until they were outlawed by the Church in 1215. After 1215, two types of legal decision developed. Continental jurisdictions adopted the Romano-canon system in which decisions were reached by professional judges bound by a set of rules that kept judicial discretion at a minimum. Capital crimes required "full proof", which consisted of the testimony of two reliable witnesses, or confession. Nothing else could be substituted. Torture, rigorously controlled, was permitted to elicit confessions. Less than "full proof" could not result in a death penalty but allowed for harsh punishments such as galley service. There emerged a system which calculated "full", "half" and "quarter" proofs. Learned treatises from as early as the mid-thirteenth century, and later ones by Mascardus (1597), Menochius (1607) and Everhard (1620) dealt with presumptions, conjecture and related evidentiary topics. The full, half and quarter proof system did not fundamentally change for several centuries. In the late seventeenth century jurists Pufendorf, Domat, and Pothier began exploring a probabilistic approach to evidence, and Leibniz explored degrees of probability and certainty.

English common law took a different path. Lay jurors, not professional judges, decided matters of fact. Initially jurors decided cases on their own knowledge. With the introduction of witnesses, juries now had to make judgments of guilt or innocence on the basis of witness testimony using the criteria first developed by Cicero and Quintilian. The criteria were also readily available in the sixteenth- and seventeenth-century manuals that guided justices of the peace in making preliminary assessments of those accused of crimes. The criteria included companions, education, social status, gender and reputation for integrity.

By the early seventeenth century, however, Francis Bacon, a prominent lawyer, indicated that English law left "both supply of testimony and the discerning and credit of testimony wholly in the jury's conscience and understanding" (1880; I, 513). The same language was included in a royal proclamation of 1607 (Larkin and Hughes 1973: I, 168). Some years later, the distinguished judge, Sir Matthew Hale, indicated that jury trials were "the best method seeking and sifting out the truth" because they could "weigh the credibility of witnesses and the Force and Efficacy of their Testimonies" (1971: 164-65). As in several other areas of intellectual endeavors, matters of fact were to be established on the basis of credible witnesses.

Although we do not know if and how jurors were instructed in routine case, we can trace the development of judicial instruction in the printed State Trials.

First we hear of "satisfied conscience", a term familiar from casuistry. Testimony was to be evaluated in order to reach the level of the "satisfied conscience", "understanding", "mind" or "moral certainty". We can't determine exactly when moral certainty and its cognate beyond reasonable doubt first appeared in legal proceedings. The first recorded use of the "beyond reasonable doubt" standard was in the Boston Massacre trials of 1770. Used by judges and both prosecution and defense lawyers, there is nothing to suggest that it was introduced then as an innovation. The term beyond reasonable doubt was well known and widely used long before it appeared in the legal sources.

English treatises on evidence began to appear in the mid-eighteenth century. Sir Geoffrey Gilbert's treatise tellingly begins with a Lockean summary. "There are several degrees from perfect Certainty and Demonstration quite down to Improbability and Unlikeness… And there are several Acts of the Mind proportioned to these Degrees of Evidence… from full Assurance and Confidence, quite down to Conjecture, Doubt, Distrust and Disbelief… What is to be done in all Trials of Right, is to range all Matters in the Scale of Probability… And thereby to make the exact Discernment that can be, in Relation to the Right" (1754: 1-2). Law could not reach certain knowledge because trials dealt with "transient events" and required consideration of witness credibility.

Gilbert's treatise was only the first of many to ground legal fact-finding on what at that time was considered to be a sound epistemological foundation. Evidence treatises from Gilbert onward typically cited Locke and later the common sense philosophers. John Morgan's 1789 Lockean based *Essays on the Law of Evidence*, like Gilbert's, included material on degrees of knowledge running from perfect certainty and demonstration down to probability and unlikeliness. In dealing with evidence the mind ranged from "full assurance and confidence, to conjecture, doubt and disbelief". Legal proceedings "must judge on probability", but "nothing less than the highest degree of probability" must govern the courts. When testimony was heard from "honest, credible and disinterested witnesses" one could only "acquiesce… as if one had known it by demonstration" (Morgan 1789: I, 1-5, 12-13, 39, 48-50, 146-64).[3]

Influenced by the Scottish common sense philosophers, James Wilson, a US Supreme Court Associate Justice and law professor, asserted that the law was, and could be, "conformable to the true theory of the human mind". "Belief admitted of all possible degrees from absolute certitude down to doubt and suspicion". Most knowledge of "men and things" arose by "insensible gradation, from possible to probable, and from probable to the highest degree of moral certainty". "The whole stupendous fabric of natural philosophy" had the

[3] Morgan also discusses credible witnesses, circumstantial evidence and presumptions.

same epistemological basis as the law (Wilson, 1967: I, 486, 503-5, 508, 510, 518-19; II, 32). In 1802 Leonard McNally indicated it was a rule of law that if a jury "entertain a reasonable doubt" of witness testimony, it must acquit. "It was their "indefensible duty" to determine "whether they are satisfied, beyond the probability of doubt, that he is guilty" (1802: 3).

Widely used in England and America, Thomas Starkie's early nineteenth-century evidence treatise, stated that although the law sometimes added special conditions such as the exclusion of certain kinds of testimony to ensure that the "search for truth" would not be contaminated. "Legal facts were no different from other kinds of facts". Indeed, everyone "desirous of satisfying himself by inquiry as to the truth of any particular fact" must be guided by the same principles. Even the most direct evidence could produce nothing more than such a high degree of probability as amounts to a moral certainty. Evidence must be sufficient "to satisfy the understanding and the conscience of the jury" and "evidence which satisfied the minds of the jury… to the entire exclusion of every reasonable doubt constitutes full proof of the fact" (1824: 514).

Although the language of "satisfied conscience", "satisfied understanding", "satisfied mind" and "moral certainty" are no longer generally understood to be cognates of "beyond reasonable doubt", American courts still make use of that language.[4]

5. *"Science" and the "Natural sciences"*

We call natural science what early moderns sometimes labeled natural history, natural philosophy, the new Philosophy or the experimental philosophy. "Science" meant certitude, not an investigation of natural phenomena.[5] Our familiar word "scientist" did not exist until the nineteenth century. The early modern period marked the erosion of the meaning of "science" as absolute certitude for most of those seeking knowledge of the natural world. Instead a scale of probability would determine whether a finding had reached "moral certainty".

Hostility to scholastic logic, the rejection of authority and skepticism affected the natural sciences as it did other disciplines, but it was the exploration of America and exposure to other previously unknown locales that produced an enormous expansion of new information that inspired a new flourishing of

[4] The US Supreme Court opinion admitted that "moral certainty" was no longer understood but did not prevent its continued use: Sandoval v Calif. 510 US 1022 (1993); Victor v Nebraska 511.1 (1994).

[5] Natural history for Bacon included "regions, their sites and products" (1857-74: V, 131).

queries as to the truth or accuracy of new information. The Spanish were early in describing newly discovered natural phenomena and practicing what is now called ethnography. English, Dutch and French explorers and naturalists followed.

Credible witness testimony, so central to historical and legal fact-finding, played a similar role in the developing natural sciences, and the criteria for credible witnesses was similar as well (Watt 1724: 84-85, 276, 277, 405, 409, 464). While social status played a role, as it did in establishing historical and legal facts, education, skill, impartiality and integrity also had a place.

René Descartes and Francis Bacon, two of the most innovative thinkers of the early seventeenth century, sought new methods to achieve the certainty of "science". Bacon's influence far exceeded that of Descartes in England. Unlike Descartes, Bacon wished to ground natural history on direct observation and experiments of matters of fact. Although greatly esteemed for his advocacy of credibly reported natural facts, few of Bacon's followers were attracted to his efforts to go beyond natural history to extract universal "forms" that would achieve the status of "science".[6] While evaluations of witness credibility differed little from those of historians and legal fact-finders, those involved in empirical and experimental studies had the advantages of instruments such as telescopes, microscopes and measuring devices and the ability to repeat experiments and reexamine the claims of other natural historians.

Although many naturalists of the post-Restoration period were satisfied with natural history, that is, the collection of well observed phenomena and experiments, and some were attracted to classification, still others wished to link factual data with principles, causal explanations or theory without making claims to "science" in the sense of absolute certainty.

Hypothesis, a concept taken from mathematics, provided naturalists with a means of connecting natural facts to explanations and principles while avoiding claims of demonstration or mathematical certainty. Hypothesis, however, like the term hypothetical, suggested fiction so remained under suspicion. Copernican astronomy, Boyle's atomism, and Harvey's circulation of the blood were treated as hypotheses. Hypotheses allowed scientific theorizing to take its place in the sphere of probability. Doubts about proposed hypothesis might be raised and evaluated, something incompatible with the older concept of "science". Hypothesis might be weakly supported by evidence and thus doubtful, but a well-supported hypothesis might be worthy of belief. This view of hypothesis became common among members of the newly founded Royal Society (cf. Shapiro 2000: 144-60).

[6] Scholars differ on the question of whether or not Bacon considered "forms" to be probable.

For Joseph Glanvill, “without the enlargement of the history of Nature”, hypotheses must remain “but Dreams”, and our science could merely “conjecture an opinion”. Without evidence one could only “describe an Imaginary World of our own making”. If treated properly, however, hypothesis might “include many things with security from Error” (Glanvill 1668: “Address to Royal Society”; cf. also: Shapiro 1985: 270, 280). One must not be “fixed eternally “on theories as established certainties but to consider them in the modest sense of hypotheses” (Shapiro 1985: 110). “The best Principles of Natural Knowledge” were “but Hypotheses” (Glanvill 1668: 81, 89). Samuel Parker, who like Glanvill was a promoter of the new science, thought one should “addict” oneself to “true and Exact Histories”. He thought that natural history would eventually “lay firm and solid foundations to Erect Hypotheses” (Parker 1666: 44-47). Mathematician John Wallis expressed reluctance to accept newly proposed hypotheses until all sides had been heard, or “until the truth emerges through the very clearness of the thing”. Commenting on a hypothesis of Leibniz, Wallis indicated that he considered many parts of it to have “great probability, if not certainty” (Shapiro 1985: 49, 280). Christopher Wren believed that “true theories” were confirmed by “many Hundreds of Experiments”. Yet he told Robert Hooke that “I have, I think, lighted upon a hypothesis” concerning the path of comets “which when it is riper and confirmed by your observations, I shall send you” (Shapiro 1985: 48, 279). William Whiston rejected Thomas Burnet’s theory of the earth as a “precarious and fanciful” hypothesis that relied on “no known Phenomena of nature” (Whiston 1696: 3).

Both Robert Hooke and Robert Boyle adopted hypothesis as a way of connecting data to explanations and theory. Hooke praised the Society’s refusal to espouse hypotheses” insufficiently “founded and confirm’d by experiment” and on one occasion characterized hypotheses of his own as “Conjectures and Queries” not “unquestionable Conclusions, or matters of unconfutable Science”. One should not expect “any infallible Deductions or certainty of Axioms” (1665: “Preface”, 46, 53, 56-91). Robert Boyle planned, but did not complete, a treatise that would consider the “requisites of a good Hypothesis” and a description of an “excellent one” (1965: 134-35, 234-35). Hypotheses should not be made before making a sufficient number of experiments. Boyle also wrote, “Not that I… disallow the use of reasoning upon experiments, or endeavoring to discern as early as we can the confederacies, and differences, and tendencies of things; for such an absolute suspension of the exercise of reasoning were exceeding troublesome, if not impossible” (1772: I, 302). He referred to his own corpuscular hypothesis (cf. also: Boyle 1772: V, 338, 340, 461, 538-40; 1666: “Preface”; Shapiro 1985: 53-55, 280-82).

So a significant number of English scientists no longer sought absolute certainty of "science" and instead offered hypotheses, which might or might not merit the label of moral certainty or no reason to doubt. Many experimentally and empirically minded virtuosi attempted to combine well witnessed facts of the natural world that might reach the level of moral certainty with explanations and theories traditionally categorized as "science", but placed such explanations and theories in the category of the probable. Most natural knowledge had become probable knowledge. What had been separated by the distinction between the probable and the certain could now be treated together under the umbrella of hypothesis. As in the case of religion, naturalists suggested that the new, probabilistic approach encouraged moderation in scientific disputes and reduced dogmatic pronouncements about things that could only be probable. Probability and hypothesis promoted a new style of scientific discourse (see Shapiro 1968; Shapiro 1985: 44-67).

A residue of fictionality, however, lingered around the term hypothesis. Isaac Newton, at least on some occasions, rejected the probabilistic view of hypothesis. Hooke's hypothesis of light, he thought, was too close to the suspect "hypothetical physics" of the Cartesians. Of his own "theory" of light, he said, "I would rather have" my work "rejected as vain and simple speculation, than acknowledged as hypothesis". His doctrine of refraction of light and colors "consists only in certain properties of light, without regarding any hypothesis". He famously insisted, "I frame no hypothesis" (1954: 4, 6, 404; cf. also: Shapiro 1985: 56-57, 280-83).

6. *Dissemination*

Dissemination of the notion of probable proofs, that might or might not reach the summit of moral certainty, is to be found in Locke's *Essay Concerning the Human Understanding*, the writings of common sense philosophers and several new logics. It would be hard to overestimate the influence of John Locke. His views on testimony may be seen as a summary of what we encountered in the fields of history, law and natural history. His views on the probability rather than the certainty of human knowledge built on predecessors who contributed to the decline of "science" in the sense of absolute knowledge as the goal of philosophers. For Locke probable knowledge depended on observation, experience, and the testimony of others vouching for their observations and experiences. The testimony of others is to be evaluated on the basis of "the number… the integrity, the skill of the witnesses… the design of the author, where… a testimony out of a book is cited… the consistency of the parts, and circumstances of the relation [and]… contrary testimony" (1959: bk. 4, ch. 4, sec. 4; cf. also: Osler 1970: 3-16). Locke's *Essay* was of enormous importance in making a probabilistic approach to knowledge acceptable and widely known. It would gradually replace or supplement scholastic logic at Oxford and at several dissenting academies. And we have already noticed its immense impact on the legal treatise writers. Probabilistic thinking on Lockean lines, and later in the Scottish common sense school of philosophy, became commonplace.

The common sense approach to knowledge became well known in the publications of Thomas Reid and his followers. Although these thinkers rejected aspects of Locke's epistemology, postulating a common sense that was known immediately by intuition, they were primarily motivated by opposition to the radical skepticism of David Hume.

Textbooks, especially logic textbooks, were also important is disseminating the Lockean and common sense, probabilistic approaches to knowledge. Isaac Watts, whose numerous editions of Logic were used at Oxford, Cambridge and in New England, offered a "practical" logic that emphasized the degree of assent given to propositions. There were "uncertain or doubtful Propositions" called "opinion" as well as different "degrees of Evidence". When evidence "is greater than the Evidence to the contrary, then it is a probable Opinion". When equal, it was a "doubtful Matter" or "a dubious or doubtful Proposition" of which one should remain "in a State of doubt and Suspense". Assent should be apportioned "to the Degree of Evidence". Despite human fallibility, there were "Instances when… Human Faith, Sense and Reasoning lay a Foundation… and leave no room to doubt". Moral certainty, the highest degree of probability, required testimony of one "capable of knowing the Truth", whether he was an eye or ear witness or reported hearsay. One should accept a "skillful account" of such testimony if there were no "reasonable doubts". Human testimony in many cases is "scarce inferior to natural Certainty". This approach, according to Watts, was relevant to natural philosophy, the affairs of daily life, and to proving the truth of Christianity (1725: 84-85, 27, 277, 405, 409, 464).[7] Textbooks purveying this approach circulated in England, Scotland and the American colonies (see: Oldfield 1707; Waterland 1730; Johnson 1754; Gerard 1755).

Dictionaries and encyclopedias also provided a channel for disseminating the cluster of concepts we have been examining (see: Chambers 1728; Bailey 1730: 69, 488, 51). By the mid-eighteenth century, if not sooner, "degrees of probability", "moral certainty" and "belief beyond reasonable doubt" had become part of an educated person's intellectual repertoire.

[7] David Hartley (1749) discussed true, doubtful and fictitious narrations of fact. Some facts were "practically certain", others, "liable to doubts".

7. *Conclusion*

This essay has examined a number of concepts related to the development of "probable proof" beginning with the long-lasting Aristotelian dichotomy between "science" and "probability". We have repeatedly encountered "witnessing", "testimony", "credibility", "evidence", "doubt", "conscience", "understanding", "opinion", "conjecture", "matter of fact", "hypothesis", "moral certainty" and "belief beyond reasonable doubt" in connection with the increasing acceptance of probable knowledge. Portions of the category "probability", traditionally labeled "opinion", expanded into a form of "knowledge" labeled moral certainty. Fewer and fewer English intellectuals sought the certainty of the gold standard of "science", defined as absolute certainty

This presentation has drawn attention to similarities and differences among the disciplines. Historians had to find a balance between rhetorical norms that permitted invented speeches and other such persuasive devices and the norm of truth telling. Historians were, therefore, heavily indebted to classical norms and contemptuous of their medieval predecessors. They, like others, relied on firsthand witnesses who were to be tested for credibility.

Theologians owed far more to their medieval predecessors. Unlike historians and jurists, their concerns with probability and proof frequently appeared in polemical publications. Casuistry, which dealt with the "court of conscience" and relied on arguments rather than evidence, played an important role in transmitting a graduated scale ranging from doubt to beyond reasonable doubt.

We have briefly examined two approaches to legal fact-finding. Continental jurists established a rational but quite rigid system of full, half and quarter proofs that lasted throughout the early modern period. Judges were constrained by rules such as the two witness or confession rule in capital cases. In England lay jurors assumed the task of evaluating testimony when witnesses became a regular feature of courts which used "satisfied conscience", "satisfied understanding", "moral certainty", and "beyond reasonable doubt", separately or in combination.[8] These concepts received extended treatment in the treatise literature.

The greatest changes occurred in the natural science where the range of "science" in the sense of absolute certainty was much reduced and that of probability greatly increased. The facts of natural history could be believed, as could those in civil history, scriptural history and in the law courts, by evaluating witness credibility. The declining scope of "science" was associated with the

[8] English jurists only gradually considered "circumstances" to be evidence capable of moral certainty or proof beyond reasonable doubt.

growth of Baconian observation and experiment and the Royal Society. Particularly important was the adoption of hypothesis in linking matters of fact to the principles that explained them. Both facts and hypotheses might or might not attain the highest degree of certainty within the category of probability.

Failure to observe disciplines in relation to one another obscures the commonalities of intellectual life and has led to the erroneous belief that the beyond reasonable doubt standard in English law was an innovation rather than a feature of a well-established and widely known tradition of fact finding. A focus only on separate disciplines also has obscured the role of textbooks, encyclopedias and dictionaries in making the idea of probabilistic knowledge familiar to a nonintellectual audience.

This brief survey has exposed how changes in terminology have hindered efforts to trace the development of notions of probabilistic proof. The word "conscience" is no longer associated with rational choices or a graduated scale reaching from doubt to a "sure" or "satisfied conscience", "moral certainty" and "beyond reasonable doubt". The very words "moral certainty", now an obsolete concept, have made it difficult to equate that expression with "belief beyond reasonable doubt". It, therefore, has not been obvious that a "satisfied conscience", or a "satisfied mind" or "understanding", meant the same thing as "moral certainty" or "beyond reasonable doubt", the highest stage of certainty within the sphere of probability. History is now understood to be a field of study that engages the past, not, as earlier, accounts of both past and present objects and events; thus the history of plants, the history of fish, or the history of trade winds. Although the term natural history remains in current use, it is now likely to be associated with particular disciplines such as botany, geology, or biology. "Science" no longer refers to certain knowledge or demonstration. "Hypothesis" was first associated with mathematics only later adopted by the natural and social sciences.

This heavily based English survey obviously requires the inclusion of Italian, French and Dutch developments, and extended treatment of mathematical probability and the "probable" as a literary concept. It will be necessary to bring the twentieth-century views of scientist Albert Einstein and philosophers John Maynard Keynes, Ludwig Wittgenstein and Bertram Russell to the probability narrative.

This essay has shown the centrality and tenacity of the ancient distinction between "science" and "probability" in shaping European thinking about the nature and limitations of knowledge. We have traced a major shift in the European understanding of what constituted knowledge as well as how differences of opinion in both religion and the natural sciences might be handled in a less contentious manner. The increased value given to probable proofs and the linking of the "probable" with "knowledge" have played a major role in way Europeans came to conduct intellectual investigation and controversy. Looking at these developments over the long term it is clear that the dichotomy between "science" and "probability" created a framework or way of thinking about knowledge for many centuries it was at the same time an impediment to conceptualizing an empirically based probabilistic form of knowledge.

Barbara J. Shapiro
University of California Berkeley
bshapiro@berkeley.edu

References

1. Primary sources

Ames, William, 1639*, Conscience: The Power and Cases Thereof*, London.

Bacon, Francis, 1857-74, *Works*, ed. by J. Spedding, R. Ellis, and D. Heath, Longmans, London.

Bolingbroke, Henry St. John, 1971, *Historical Writings*, University of Chicago Press, Chicago.

Boyle, Robert, 1666, *Hydrostatical Paradoxes*, Richard Davis, Oxford.

—, 1772, *Works*, 6 vols, ed. by T. Birch, J. and F. Rivington, London.

—, 1965, *On Natural Philosophy*, ed. by M.B. Hall, University of Indiana Press, Bloomington.

Butler, Joseph, 1736, *The Analogy of Religion*, J. Jones, Dublin.

Campbell, George, 1988, *The Philosophy of Rhetoric*, University of Illinois Press, Carbondale, IL.

Chambers, Ephraim, 1728, *Cyclopaedia,* James and John Knapton etc., London.

Chillingworth, William, 1638, *Religion of Protestants*, Leonard Lichfield, London.

Clarke, Samuel, 1706, *A Discourse Concerning the Unchangeable Obligation of Natural Religion and the Truth ad Certainty of the Christian Religon*, James Knapton, London.

—, 1711, *A Discourse Concerning the Being and Attributes of God; The Obligation of Natural Religion and the Truth and Certainty of The Christian Religion*, London.

Bailey, Nathan, 1730, *Dictionarium Britannicum*, T. Cox, London.

Erasmus, Desiderius, 1961, *Erasmus-Luther: Discourses on Free Will*, trans. and ed. by E.G. Winter, Ungar, New York.

Fuller, Thomas, 1659, *The Appeal of Injured Innocence*, W. Godbil, London.

Gerard, Alexander, 1755, *Plan of Education of Marshal College and the University of Aberdeen*, James Chalmers, Aberdeen.

Gilbert, Geoffrey, 1754, *The Law of Evidence*, Sarah Cotter, Dublin.

Glanvill, Joseph, 1668, *Plus Ultra*, London.

—, 1676, *Essays on Several Important Subjects*, J.D. for John Baker, London.

Grotius, Hugo, 1680, *The Truth of the Christian Religion*, trans. by Simon Patrick, Rich. Royston, London.

Hartley, David, 1749, *Observations on Man, his Duty and his Expectations*, S. Richardson, London.

Hobbes, Thomas, 1928, *The Elements of Law Natural and Political*, ed. by Ferdinand Tonnies, Cambridge University Press, Cambridge.

Hooke, Robert, 1665, *Micrographia*, John Martyn, London.

Johnson, Samuel, 1754, *Elements of Philosophy: Containing the most Useful Parts of Logic*, A. Millar, London.

Larkin, James F. and Paul L. Hughes (eds.), 1973, *Stuart Royal Proclamations*, Oxford University Press, Oxford.

Locke, John, 1959, *An Essay Concerning Human Understanding*, ed by A. Fraser, 2 vols, Dover Publications, New York.

McNally, Leonard, 1802, *The Rules of Evidence on Pleas of the Crown*, J. Butterworth and J. Cooke, London and Dublin.

Morgan, John, 1789, *Essays upon the Law of Evidence*, 2 vols., J. Johnson, London.

Newton, Issac, 1954, *Mathematical Principles of Natural Philosophy*, ed by F. Cajori, University of California Press, Berkeley and Los Angeles.

Joshua Oldfield, 1707, *An Essay toward the Improvement of Reason*, T. Parkhurst, London.

Parker, Samuel, 1666, *A Free and Impartial Censure of the Platonick Philosophy*, W. Hall, Oxford.

Perkins, William, 1966, *Discourse of Conscience*, in *William Perkins, 1558-1602: English Puritanist. His pioneer works on casuistry: "A discourse of conscience" and "The whole treatise of cases of conscience"*, ed. by T.F. Merrill, B. De Graaf, Nieuwkoop.

Pufendorf, Samuel, 1703, *Of the Law of Nature and Nations*, L. Lichfield, Oxford.

Ray, John, 1691, *The Wisdom of God Manifested in the Works of Creation*, Samuel Smith, London.

Sacheverell, Henry, 1706, *The Nature, Obligation, and Measure of Conscience*, L. Lichfield, Oxford.

Sharp, John, 1688, *A Discourse of Conscience. The Second Part: Concerning a doubting conscience*, Walter Kettilby, London.

South, Robert, 1718, *Twelve Sermons*, Jonah Bowyer, London.

Sprat, Thomas, 1958, *The History of th Royal Society*, ed. by Jackson I. Cope and H. Jones, University of Washington at St Louis Press, St Louis, MO.

Taylor, Jeremy, 1660, *Doctor Dubitantium, or the Rule of Conscience*, James Flesher, London.

Tillotson, John, 1666, *The Rule of Faith*, A. Maxwell, London.

Ward, Seth, 1667, *A Philosophical Essay*, A. and L. Lichfield, Oxford
Waterland, Daniel, 1730, *Advice to a Young Student*, John Crownfield, London.
Watts, Isaac, 1725, *Logick, or, the Right Use of Reason in the Enquiry after Truth*, John Clark and Richard Hett, London.
Whitlocke, Bulstrode, 1682, *Memorials of the English Affairs, or an Historical Account*, N. Ponder, London.
Whiston, William, 1696*, New Theory of the Earth*, R. Roberts, London.
Wilkins, John, 1675*, Principles and Duties of Natural Religion*, A. Maxwell, London.
Wilson, James, 1967, *The Works*, ed. by Robert McCLoskey, Harvard University Press, Cambridge, MA.

2. Studies

Cassan, Elodie, 2021, "Introduction: Logic and Methodology in the Early Modern period", in *Perspectives on Science*, 29: 237-154.
Corneanu, Sorana, 2011, *Regimes of the Mind*, University of Chicago Press, Chicago.
Daston, Lorraine, 1988, *Classical Probability in the Enlightenment*, Princeton University Press, Princeton.
Demeter, Tamas, Benedek Lang, and Daniel Schmal, 2020, "Scientia in the Renaissance, Concept of", in *Encyclopedia of Renaissance Philosophy*, ed. by M. Sgarbi, Cham, Springer.
Donahue, C., 1981, "Proof by Witness in the Church Courts of Medieval England", in *On the Law and Custom of England: Essays in Honor of Samuel E. Thorne*, ed. by Arnold Morris *er al.*, University of North Carolina Press, Chapel Hill, NC, 27-57.
Franklin, James, 2001, *The Science of Conjecture: Evidence and Probability before Pascal*, Johns Hopkins University Press, Baltimore.
Hale, Matthew, 1971, *History of the Common Law England*, ed. by Charles Gray, University of Chicago Press, Chicago.
Lancaster, James and A.T. Raiswell, 2018, "Evidence before science", in *Evidence in the Age of the New Science*, ed. by J.T. Lancaster and A.T. Raiswell, Cham, Springer, 1-29.
Orr, Robert, 1967, *Reason and Authority: The Thought of William Chillingworth*, Oxford University Press, Oxford.
Osler, Margaret, 1970, "John Locke and the Changing Ideal of Scientific Knowledge", in *Journal of the History of Ideas*, 31: 3-16.
Popkin, Richard, 1979, *The History of Skepticism*, University of California Press, Berkeley and Los Angeles.
Schuessler, Rudolf, 2021, "Casuistry and Probabilism", in *A Companion to the Spanish Scholastics*, ed. by E. de Bom and H. Braun, Leiden, Brill, 334-362.
Sergeantson, Richard, 1999, "Testimony and Proof in Early Modern England", in *Studies in History and Philosophy of Science*, 30: 195-236.
Shagan, Ethan, 2018, *The Birth of Modern Belief, Fact and Judgment from the Middle Ages to the Enlightenment*, Princeton University Press, Princeton.

Shapiro, Barbara J., 1968, "Latitudinanism and Science in Seventeenth-Century England", in *Past and Present*, 40: 16-41.

—, 1985, *Probability and Certainty in Seventeenth-Century England*, Princeton University Press, Princeton.

—, 1991, *"Beyond Reasonable Doubt" and "Probable Cause": Historical Perspectives on the Anglo-American Law of Evidence*, University of California Press, Berkeley and Los Angeles.

—, 2000, *A Culture of Fact: England, 1550-1720*, Cornell University Press, Ithaca, NY.

—, 2001, "Classical Rhetoric and the Law of Evidence", in *Rhetoric and Law in Early Modern Europe*, ed by Lorna Hutson and Victoria Kahn, Yale University Press, New Haven, 54-72.

—, 2014, "'Beyond Reasonable Doubt': The Neglected Eighteenth-Century Context", in *Law and Humanities*, 8: 19-52.

Weizrbicka, Anna, 2010, *Experience, Evidence and Sense: The Hidden Cultural Legacy of English*, Oxford University Press, Oxford.

A brief history of the French verb *convaincre*[**]

Francis Goyet

Abstract: As a technical equivalent of the Latin *probare* or *fidem facere*, the French *convaincre* ("to convince") does not appear in a rhetorical treaty before 1688 (via Pascal), for a simple reason: *conuincere* is not a technical word in the ancient or modern treatises in Latin. I will show that *convaincre* comes from another world, the *disputatio*, and contend that the goal it implies, *uictoria*, is not the goal of rhetoric qua rhetoric. With the distinction rhetoric vs. *disputatio*, the rhetorical proof is equal in dignity to the scientific proof. Otherwise, it is necessarily inferior.

1. *Introduction*

The Latin verb *conuincere* was never a technical term in rhetoric—and the same can be said for the French verb *convaincre* ("to convince"), at least before 1688.[1] Given the importance of eliciting conviction for the discipline of rhetoric, this is quite a surprising finding. It calls for a historical approach: what happened? The present study will try to answer the question, mostly through a lexicographical inquiry, focusing on Latin and French.

The questions raised in this article will deepen our understanding of what a "rhetorical proof" was and still is, since the evolution of *convaincre* is quite similar to the evolution of *preuve* ("proof"). Both have to do with the rise of the "new science" during the seventeenth century. Stephen Toulmin characterized the decades 1640-1660 as the "Quest for Certainty", and among other arguments quoted enthusiastically the following expression, from the early eighteenth century: "to prove invincibly our last statement".[2] He could have quoted a much

** **Abbreviations:** "*Pensées* 222" (e.g.) = fragment numbered 222 by Philippe Sellier. "Pascal 2000" = *Pensées*, ed. by Gérard Ferreyrolles (e.g., Pascal 2000: 142 = page 142 of Ferreyrolles's edition, see *infra*: References).

[1] In Bernardo's *Thesaurus* of 1599 there is no entry for *conuinco* or *conuincere*. The same can be said for Lausberg's index of Latin terms (1998: 635 [§ 1244]); Lausberg does not even include *convaincre* or *conviction* in his index of French terms (859 [§ 1246]).

[2] "[P]rouuer inuinciblement nôtre dernière proposition" (Toulmin 1990: 79, 216). With regard to Toulmin, see: Régent-Susini (2019: 81-82), to whom I owe this reference. All translations from French

philinq X, 2-2022, pp. 139-158
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.425

earlier expression, by Pascal, in his 1657 *Provinciales* (2010: 431): “preuves invincibles”. Thanks to the new science, an invincible proof is what we call today… a proof, whereas a rhetorical proof can never be invincible, since, by definition, it depends on the audience’s approbation, as the etymology itself suggests (*probare*, *approbare*). Up until the seventeenth century, the rhetorical proof was *the* proof par excellence, while, in plural form, the proofs (in French, *preuves*) designated the *confirmatio* or argumentative part of any speech.

With regard to Pascal’s “preuves invincibles”, I will here focus on *invincible*, a word that strongly echoes Pascal’s own use of *convaincre*, since both terms, stemming from the Latin *uincere*, are evocative of victory. *Preuve* and *convaincre* have had a similar evolution, but with an important difference: *preuve* has won, *convaincre* has lost. Both words signal an attempt to uncouple argumentation and approbation. This attempt succeeded for *preuve*: when we think of proving a point, we look for necessary arguments, “invincible proofs” independent of the audience. The old rhetorical proof has been defeated, it is definitely inferior in dignity. On the contrary, *convaincre* was eventually adopted as a rhetorical term, its violence being progressively neutralized. *Preuve* and *convaincre* were Trojan horses: the invasion of one kingdom by another. With *preuve*, Troy has been destroyed; in the case of *convaincre*, the horse became, so to speak, one of the Trojans – a non-violent word.

In the history of *convaincre*, the key figure is assuredly Pascal, while the key problem is approbation, i.e. freedom of the audience. The first part of this article will look at *convaincre* before Pascal: the building of the Trojan horse, outside Troy, in a territory or kingdom to be specified. The second part will be dedicated to Pascal’s final works, from *The Art of Persuasion* (ca. 1655) to the *Pensées*. Pascal first thought he would score a resounding victory, but quickly discovered the cardinal importance of the audience’s freedom. In the wake of his “second” conversion (1654) he, as a reborn Christian, wanted to convert his readers to his own and very ardent religious faith, but he also realized that one does not convert by forcing to admit, that is, when one “convinces” in the old and non-rhetorical meaning of the term *convaincre*. The question is: *uictoria* (see: *infra* 2.1-2.4) or freedom (see: *infra* 3.1-3.3)?

2. Victoria*: from* conuincere *to* convaincre

2.1. Conuincere *in classical latin*

Through all of Cicero’s rhetorical treatises, *conuinco* has only four occur-

are mine, unless otherwise specified. All translations from Latin are also mine, except for classical Latin, in which case I quote the translation of the Loeb Classical Library.

rences (according to Abbott *et al.* 1964: 323). Three of them mean "to convict of a crime" (*peccatum* or *culpa*).[3] Since this is the regular meaning in Latin, the verb is for Cicero a transparent word, not worth any theoretical elaboration. We may observe that those three occurrences are all in the passive form, *conuictus* or *conuici*. The person convicted is not participating in the process, she or he is neither the audience nor the judge, but the adversary: "aduersarium aliquem conuincere" meant "to defeat an adversary, to refute him", not "to convince him" in the modern meaning of *convince*.[4] In court, the orator tries to defeat the adversary by producing decisive evidence or testimony. By so doing, he persuades someone else, the judges or the general public. This is our first and very precious result: *uictoria* requires an adversary.

If from Cicero we now turn to non-technical Latin, the predominant meaning of *conuinco* was indeed "to convict": *a)* to convict of a crime; *b)* to convict of error. Or, in *OLD*: "to find guilty, convict (of a punishable offence or, with weakened sense, of a vice or fault)"; "to convict of error, prove wrong, refute, confute".[5] The verb was a close synonym of *reuincere* but also of *coarguere* (where *OLD* gives the same meanings 2, 3, and 4), as confirmed by the Digest: "*arguere* here means 'to accuse' and 'to convict'".[6]

To conclude this very short section 1.1, we may have a closer look to something I have first omitted: the fourth occurrence of the verb in Cicero's rhetorical treatises, *conuincerent* (*De Oratore* 1.42). The Loeb translation reads: the philosophers "would demonstrate", in accordance with *OLD conuinco* 4b, "to prove, demonstrate (a specified argument)" – *OLD* does not mention this particular passage from Cicero. If the Loeb and *OLD* were right, such a meaning would be very important for us. It could be the missing link leading to the modern meaning of *convaincre*: "to prove" or "demonstrate" in a neutral context, without any (legitimate) violence, and irrespective of the person one speaks to. But in fact, the Loeb and *OLD* are not completely right. Here, Gaffiot *convinco* 3 is more interesting. Not only does this dictionary quote Cicero's *conuincerent*, but it translates it as "prouver victorieusement (contre quelqu'un) que". When one proves victoriously "against somebody", in order to win, this "somebody" is their adversary.[7]

[3] Cic. *Inv. rhet.*, 2.32: "si quo in pari ante peccato conuictus sit"; 2.101: "se conuinci non posse, quod absit a culpa." Cic. *Part. or.*, 116: "argumentis peccata conuinci".

[4] Cic. *Fin.*, 1.13 (quoted in *OLD conuinco* 3a).

[5] *OLD* 2a and 3; *OLD* 4a combines both: "to prove (a person's guilt, etc.), to expose (a failing)".

[6] *Dig.* 50.16.197: "arguisse accusasse et conuicisse," in *OLD conuinco* 2a.

[7] Cf. the entry "Ouerwinnen" (*Thesaurus* 1573): "*yemanden met reden ouerwinnen.* Conuaincre aucun auec uiues raisons". *Convaincre* seems to have its modern and neutral meaning. But, in this Flemish-French-Latin dictionary, the Latin is: "Irrefragabilibus quempiam rationibus conuincere, refellere,

Indeed, in Cicero's text, *conuincerent* appears as an exclamation at the very end of a periodic sentence describing a war-like context. The verb celebrates the triumph of an army of philosophers against the orators' claims to philosophy. The former "would demonstrate <victoriously>" that the latter "have learned nothing concerning the good in life, or of the evil, nothing as to the emotions of the mind", etc. The philosophers are not trying to persuade the orators, but to defeat them. Here we find our important result again: the Latin verb *convincere* occurs only when there is an adversary.

2.2. Convaincre *in sixteenth-century French*

The French *convaincre* had exactly the same meaning as classical Latin: to convict of a crime or error.

Because of the civil and religious wars, the verb occurs very often in the religious *disputationes*, in French the "disputes et conferences". Here are some examples:[8]

> In Crespin (1555: 80), the reformer Jan Hus answers: "If anyone in the whole Council, no matter how inferior, can convict me of an error [*me convaincre d'une erreur*], I will wholeheartedly do whatever the Council demands of me". Immediate reply of the bishops: "See how obstinate and hardened [*obstiné et endurci*] he is in his errors".
>
> Covillard (1560: 10v) quotes sentences from the Bible to "convict and defeat [*conuaincre et debeller*]" those deviating from the Christian faith and community.
>
> L'Espine (1567: 349-350): "As for the <Protestant> ministers, taking glory of being not compelled to admit [*n'estre contrains de confesser*] any of the facts, drawn from Holy Scripture, alleged by the <Catholic> doctors: this does not mean that the doctors have given, in order to compel and convict them [*les contraindre et conuaincre*], only vain reasons".

Convaincre is given two synonyms: *contraindre (de confesser)* in 1567 ("forcing to admit") and *debeller* in 1560. This last verb confirms that we are in the realm of *uictoria*, as the Latin *debello* comes from *bello* and *bellum* and means (*OLD*) "1 (intr.) To fight a battle (or war) out, fight to a finish", "2 (tr.) To fight into subjection, subdue". To convict or *convaincre* is not to win a battle: it is to end the war.

Since, in French as well as in Latin, the prefix *con-* (or *cum-*) usually means "completely", *convaincre* means "to win completely", which makes it a good candidate for designating the necessary argument, the "proof" of the new science. In other words, its usage excludes, exactly as in Latin, any synonymy with the French *persuader*. Persuading and "convincing" in its older meaning refer to

confutare, retundere, argumentis conuincere". So, "conuaincre aucun" = "to refute an adversary".

[8] Google search (*convaincre* from 1550 to 1600, 04.20.2020). Many occurrences of *convaincre* in Salliot (2009: 222, 259, 261, 307, 437, 482).

very different pragmatic situations. The persuading process characterizes the rhetorical world, where hostile audiences or judges are common occurrences. The excellent orator will be able to obtain the assent of any *audience*, even if, with a hostile one, such a result may look like an improbable miracle. On the contrary, the idea of persuading the *adversary* was never an option, everyone knowing it was impossible. With an adversary, whether in court or in a *disputatio*, the goal is only to defeat (*convaincre*) them. The Catholic Church was well aware of the difference.[9] The Church always stated that, in a rhetorical speech such as a sermon, you can, as a Christian orator and with God's help, persuade the *audience*, that is, strengthen people's faith and devotion. In a religious "dispute", you can only, as a scholar in theology and through human reason(s), defeat your adversaries, the heretics – but certainly not convert them.

A sixteenth-century maxim puts it in a striking way. Confronted in a religious *disputatio* by the "heretics" (i.e. the Protestants), "you can defeat them, you cannot persuade them": "conuinci possunt, persuaderi non possunt".[10] The opposition between *conuinci* and *persuaderi* is different from the modern opposition between convincing and persuading, i.e. argumentation vs. emotions. It refers to two separate and antagonistic domains. I have said in my introduction that rhetoric is a kingdom facing a violent invasion from another kingdom. We have here a first hint about the name of this other kingdom. According to the maxim, *persuaderi* is the goal of rhetoric and *conuinci* that of *disputatio*. It means that the other kingdom we are looking for is the vast kingdom of *disputatio*, or, rather, the numerous kingdoms of *disputationes*, all allied against Troy, like the many Greek kings of the *Iliad*.

2.3. Convaincre *in seventeenth-century French*

From 1600 to 1670 (publication of the *Pensées*), I have not found a single occurrence of *convaincre* in its modern and neutral meaning: "to prove, demonstrate", or (Littré *convaincre* 3) "to make an opinion enter into somebody's mind".[11] Has a slow and silent evolution taken place? I strongly doubt it.

Furetière's dictionary of 1690 apparently cites the modern meaning, since it explains *convaincre* by… *persuader*. But let us read the complete entry (italics are Furetière's, numbering is mine):

[9] Cf. e.g., Lamy (1998): 434 [5.22].

[10] Stapleton (1579: 430D), attributing it to Tertullian. Du Perron in 1601 quotes Jerome's last words of the *Altercatio Luciferiani et orthodoxi*: "facilius eos uinci posse, quam persuaderi" (1845: 182). Du Perron translates: "les heretiques peuvent bien estre facilement vaincus… c'est-à-dire comme vous l'entendez, convaincus" (in Salliot 2009: 449).

[11] "Faire entrer dans l'esprit une opinion". Cf. Pascal's *The Art of Persuasion*: "deux entrées par où les opinions sont reçues dans l'âme" (1991b: 413 [§ 2]).

CONVAINCRE. v. acte de persuader quelqu'un par raisons évidentes et demonstratives. [1] Il n'y a point si opiniastre qui ne se laisse *convaincre* par les demonstrations de la Geometrie. [2] Ce *criminel* a été atteint et *convaincu* des cas à luy imposez. [3] Il a été *convaincu* de cette verité par l'experience, par le témoignage de ses sens. Ce mot vient du Latin *convincere*.

CONVAINQUANT, ANTE. adj. Ce qui est clair, évident, demonstratif… C'est là une raison *convainquante*, qui persuade.

"The act of persuading" a criminal? No: the act of defeating him, of "forcing him to admit", equivalent to the "contrains de confesser" seen above, dated 1567.

The crucial question is, again: who is Furetière's "someone" or *quelqu'un*? In [1], the answer is: the *opiniâtre* or opinionated maintaining her or his own opinion – the word reminds us of the religious *disputationes*, where *opiniâtre* was a regular insult against the adversary, stuck in his universe of beliefs. In [2], the "somebody" is the person prosecuted in the case, "convicted of" adultery, homicide, etc. by evidence or testimonies. For [3], the usual example is the apostle Thomas, doubting the resurrection of Christ, until he could see and feel his wounds: Thomas' error is refuted by his own experience.[12] In sum, from [1] to [3], none of these meanings pertains to rhetorical persuasion. We are still in the realm of *uictoria*, where one speaks to an adversary.

We can now describe the realm of *uictoria*. It was, so to speak, the kingdom of *disputationes*: technical debates between high-level specialists, encompassing arguments against an adversary, the general goal of which is to establish the truth. For, of this vast kingdom, the legitimate queen is Truth, to which one must obey, willy-nilly. But there were many sorts of *disputationes*. In academia (Furetière's meaning [1]), the *disputatio* between scientists concerns geometrical or mathematical truths; the theological *disputatio*, religious truths, etc. The rise of the modern sense of "proof" could only occur in this kingdom. Through the common method of *disputatio*, some disciplines or *artes* were able to reach the Holy Grail of "evident and demonstrative reasons", for instance geometry and mathematics, which emblematize of the "Quest for Certainty". Other disciplines could not, for instance theology; while others still, temporarily and for contingent reasons, remained somewhere in between, like medicine.

In Antiquity, *disputatio* seemed to be limited to general questions, the *quaestiones infinitae*. But if the object of the Quest is truth, it is not difficult to extend it to the *quaestiones finitae* and factual truths. In terms of disciplines, this allows

12 Hence Augustine's definition of *fides* as "convictionem rerum quae non videntur" (e.g., Augustine 1841: 1015), quoting Hebrews 11:1 ("une pleine conviction <des choses> qu'on ne voit point", in Sacy's translation), cf. John 20:29.

for the inclusion of history and historical truths. The Quest also includes… rhetoric, or rather the judicial rhetoric, in which the judge tries to find out what happened through the questioning of the witnesses (*altercatio*, Quint. *Inst. or.*, 6.4) and the sound method of *coniectura* (7.2).[13] In this case, the judge becomes indeed a historian, as well shown by Carlo Ginzburg. But this is not an essential role, even though ancient rhetorical treatises met this ancillary problem with lengthy details on testimonies, near-evidence (Latin *indices*), etc.[14] The confusion of rhetoric with a sort of *disputatio* comes from the fact that the majority of trials in court were – and still are – basically a "whodunnit".

How did Antiquity name the kingdom of *disputationes*? It is not exactly philosophy, but rather dialectic, since, according to Augustine, "dialectic is the knowledge of the rules for a good *disputatio*" (*PL* 32: 1409).[15] I will contend with Campanella that dialectic has truth for its object, and rhetoric the good (the just, the profitable, etc.): dialectic "pro obiecto habet verum, et falsum"; rhetoric "bonum, et malum", and generally speaking what is important "for us", "secundum nos" (Campanella 1638: 3). Rhetoric qua rhetoric is *not* fundamentally concerned with truth. If the orator's task is to show the importance of her or his proposition, she or he necessarily seeks the audience's approbation (through rhetorical proofs); truth doesn't. In a word: importance needs "us". Hence the link between rhetoric and politics. In any political deliberation on a future decision, the opposition between *pros* and *cons* is not the opposition between truth and error.

Having identified rhetoric's antagonist, we can conclude on Furetière's entry. Assuredly, [1] is the new meaning of the seventeenth century, in keeping with Descartes and the new science, while [2] is the old meaning of the sixteenth century. But [1] and [2] have the old *disputatio* in common: the person accused in court is also forced to admit what has been decisively proved, by means of what is termed in English (material) evidence, etc. Therefore, there is continuity between Furetière's three meanings. They correspond indeed to the three ways of proving "en la dispute des sciences humaines", as they are enumerated by the Jesuit Louis Richeome (1600: 2.1, 267): experience; reasoning; testimonies – i.e. Furetière's [3], [1] and [2].[16]

Before going on to Descartes, a word on Agricola as a forerunner. If the essence of the two rival kingdoms is controversial, their boundaries are clearer.

[13] Quintilian's examples (*Inst. or.*, 7.2.2) combine *quaestiones infinitae* et *finitae*.

[14] My disagreement with Ginzburg's view of rhetoric relies on the opposition *verisimile* (for the *narratio*) vs. *probabile* (for the *confirmatio*): see Goyet (2017: 196-200).

[15] "Dialectica est bene disputandi scientia".

[16] The third is exactly "auctorité" (Richeome 1600: 267), later called "tesmoignage" (270). A Google search (*convictus sum* from 1600 to 1700, 06.28.2021) gives the same tripartition: an opinion is refuted or defeated "experientiâ", "ratione/rationibus", "testimonio".

As Quintilian puts it: when an argument is necessary or decisive, it is no longer an argument.[17] Agricola remarks:

> Thus, for him [Quintilian], none of the discoveries to which the works of mathematicians have led would be an argument, although they demonstrate everything with certain reasons that one cannot doubt (1992: 1.21, 132.113).

Clearly, Agricola is on the other side of the border and belongs to the *disputatio*, like his remote successors Ramus and Descartes. Hence his use of *peruincere*, if not *conuincere*. At the beginning of his book, *peruincere* (and *argumentatio*) is reserved for the reluctant audience or judge.[18] At the end, it is used for the adversary (*cum adversario*).[19] We will see below that the *Pensées* hesitate similarly between two audiences: one prone to believe the author, the other totally reluctant to do so.

2.4. *Victoria and disputatio: convaincre (and conuincere) in Descartes' works*

We may conclude part 1 about *uictoria* with some short remarks on Descartes.

Descartes himself does not have any hesitation, his horizon being the academic debate. For him and his followers (i.e. the Cartesians), *convaincre* has the meaning [1] of Furetière, provided we add: they speak to an adversary, in the context of a *disputatio*. Mersenne describes how Descartes "defeated [*convaincre*] by his reasons all those who wanted to put up resistance [*qui luy ont voulu faire resistance*]".[20] In this European championship of sorts, the interlocutor must not be an audience prone to believe, called *vulgus*.[21] In Corneille's words, "À vaincre sans péril, on triomphe sans gloire".

[17] "If the Signs are indubitable, they cannot be Arguments, because where there are such signs there can be no Question, and there is no scope for Arguments except where there is a dispute" (Quint. *Inst. or.*, 5.9.2).

[18] "Fidem facimus/ducimus… credent[em], et velut sponte sequentem," vs. "pervincimus/trahimus… non credentem, atque repugnantem" (Agricola 1992: 8.29 [1.1]).

[19] "Credentem fingimus auditorem" vs. "cum res est cum adversario, qui pervincendus est" (Agricola 1992: 480.37-43 [3.7]). For other occurrences of *pervinc-* (my thanks to Philippe Collé), see: Agricola (1992: 154.24, 162.153 [1.25]; [294.158 [2.14]; 302.7, 302.26 [2.16]; 422.140 [2.29]; 522.148 [3.12]). There are only two occurrences of *convinc-*: "res ipsa convincit" (26.122 [1.3]), "convinci ingratitudinis" (522.150 [3.12]).

[20] For references to Descartes in this article, see: *Corpus Descartes*, unicaen.fr.puc/sources/prodescartes.

[21] If, according to Descartes in his famous letter praising Guez de Balzac, Balzac's arguments persuade the general public ("apud vulgus facilè inveniant fidem," or, in Clerselier's translation, "gagnent facilement l'esprit du peuple"), they also "convince" ("convincatur") the reluctant and demanding reader ("maiori quisque ingenio"), i.e. they pass the test of a merciless examination.

Within the *disputationes*, Descartes' specific goal or Holy Grail is indeed the "Quest for Certainty" as defined by Toulmin. His ambitious objective is not only to reach certainty, but to make it the (new) criterion of (the new) science. Disciplines not meeting this criterion are left with *veri similitudo* and *probare*.[22] But even this second-rank category does not include rhetoric.

In academia, the *disputationes* are rather peaceful (except with Voetius). Descartes the triumphant imagines an ideal world where his adversary admits defeat with magnanimity equal to his own "générosité". The intellectual and elitist duel is also a competition in politeness. So, *convictus sum* probably sounded like *concedo*, *accordo* or, in French, "j'avoue" ("I avow, I admit"): e.g, at the end of the *Meditationes*, "his [that 3+2=5] et mille aliis convincimur".[23]

Finally, in the very verb *convaincre*, or rather *conuincere*, Descartes – or at least his translator, Clerselier – certainly hears *vaincre* and victory. He writes in 1634: "if what I have just written does not have the strength to defeat you [*convicant*; *convaincre*], I admit that you are quite invincible".[24] Clerselier's *invincible* is a recurrent term by the Cartesians, like a cry of triumph. Clerselier praises Descartes for having "invincibly proved" the existence of God ("en prouvant invinciblement"). Arnauld and Nicole repeat the adverb: "one must invincibly conclude", "it proves invincibly", "the first of these principles serves to invincibly prove all the truths of the Christian religion" (1664: 1.192, 1.412, 2.229). Pascal wants "to clarify <the truths already found> in such a way that the proof is invincible" (1991a: 390). In the sixteenth letter of the *Provinciales*, dated December 1656, he demands for an accusation, as already mentioned, "invincible proofs"; in Latin, "invictis…argumentis" (2010: 431; Lat. trans. 1665: 475).

With this *invictus*, we are still in the world of Cicero's *conuicerent*: "to prove victoriously", against an adversary – in the *Provincial Letters*, against the Jesuits.

3. *Pascal and the freedom of the audience*

3.1. *Pascal's* The Art of Persuasion *and* Provincial Letters *(1655-57)*

As a scientist, Pascal is used to *convaincre* in this meaning, quite current in the world of the scientific controversy or *disputatio*. So, in this Part 2, my general

[22] Descartes has once the gradation *probare>conuincere*: if Regius' writings fall into unfriendly hands, "ex illis probare poterunt, et vel me iudice convincere, quod Voëtio paria facias etc." Regius could be not only suspected but decisively convicted of "squaring his account with Voetius" (*OLD par* 2a).

[23] In Pascal, "principes avoués" = "quels principes il accorde" (1991b: 416 [§ 9]).

[24] "Car si ce que ie viens d'écrire n'a pas la force de vous convaincre, i'avouë que vous estes tout à fait invincible." (Clerselier II, 145; very end of the letter XVII) In Descartes' Latin: "Nisi enim te, quae jam scripsi, convincant, plane insuperabilem fatebor" (AT I, 312).

contention is the following: in his final works, from *The Art of Persuasion* to the *Pensées*, Pascal never uses *convaincre* in its modern and non-violent sense of "to make an opinion enter into somebody's mind" (Littré). The modern sense admits of degrees ("more/less convincing"), the older one did not.

Let us start by *The Art of Persuasion*, probably written in 1655. It is quite probably the first occurrence of *convaincre* in a near-rhetoric meaning, as strongly opposed to emotions: "the art of persuasion consists as much in pleasing [*agréer*] as it does in convincing [*convaincre*]" (Pascal 1991b: 413). The sentence reformulates the major opposition in rhetoric, between argumentation and emotions: in Greek, *logos* vs. *pathos*, in Latin *docere* vs. *mouere*, *probare* vs. *flectere* (Cic. *Orat.*, § 69), *fides* vs. *motus* (Cic. *Part. or.*, 9), etc.

Here are the details of Pascal's opposition (1991b: 413-416; Eng. trans. 2000: 193-195):

For persuading, "deux entrées" (§ 2) or "two methods" (§ 10):

§ 2, "understanding" ("l'entendement")	"will" ("la volonté")
"proof" ("la preuve")	"that which is attractive" ("l'agrément")
§ 3 and 5, "mind" ("l'esprit")	"heart" ("le cœur")
§ 7, Things "inferred by necessary consequences… infallibly persuade… [and] there is an inevitable necessity that they convince". ("il y a nécessité inévitable de convaincre")	Things "which have a strong link with objects of our satisfaction": if the thing shown by the orator "can lead to what the soul loves above all, it is inevitable that it should joyfully embrace it".
"our beliefs" ("nos créances")	"our pleasures" ("nos plaisirs")
§ 8, the soul "acting only through reason"	the soul choosing "what a corrupt will desires"
"truth" ("la vérité")	"pleasure" ("la volupté")
§ 9, "the principles he admits" ("il accorde")	"the things he loves"
"convincing" ("convaincre")	"pleasing" ("agréer")
"reason" ("raison")	"whim" ("caprice")

Where lies the originality of Pascal here? Not in identifying *convincing* and *pleasing* with the two main *animi potentiae*, the understanding and the will. This was a *cliché*.[25] The originality lies in the "simple" fact of introducing *con-*

[25] Cf. Descartes, *Regula II* (AT X, 363): "intellectum tandem convinceret". When Menestrier (1663: 10-11) refers *fidem facere* to *intellectus*, and emotions to *voluntas*, he imitates *Il cannocchiale*

vaincre instead of any other French term, more usual at the time.[26] Introducing *convaincre* is a true event. In a single word, Pascal summarizes the whole "Quest for Certainty". He forcefully introduces truth and *disputatio* in rhetoric, as a Trojan horse.

The violence of such an intrusion is emphasized by Pascal's Augustinian anthropology. In the right-hand column, "will" being "corrupt", "volonté" rhymes with "volupté" (§ 8). At the other end of the spectrum, *convaincre* is the triumph of "reason", exercising a violent but legitimate power over reluctant minds. The verb summarizes, indeed, the whole scientific or "geometric" method described at length afterwards (§ 13-30).

By comparison, *The Art of Persuasion* is extremely brief on the non-geometric method, "the way of pleasing". It is rather paradoxical, since this one is "incomparably more difficult, more subtle, more useful" (1991b: 416 [§ 11]; Eng. trans. 2000: 196) – where "useful" announces the famous epithet for Descartes in the *Pensées* (445), "useless". We get the feeling that discovering the rules for pleasing will be Pascal's next intellectual challenge.

A year later or so, Pascal displayed in the *Provincial Letters* (1656-57) a prodigious ability to please a large audience, whether or not he had yet discovered the method for pleasing. The work being a sort of theological *disputatio* for the layman, we can expect to find there many occurrences of *convaincre*. Moreover, since it was translated in Latin by Pierre Nicole, we can control their various meanings. All of them correspond to those of the entry *conuaincre* in Estienne (1549: 135). In Furetière's order:

[1. Error] convaincre *or* convaincus de fausseté; falsi convincere *etc.* (Pascal 2010: 163, 175; Lat. trans. 1665: 33, 41 – see also: 434, 478)

[2. Guilt, here of calumny, punishable by law (cf. 435)] que quelqu'un de la Société soit convaincu d'imposture; calumniae sit reus (345, 358 – *reus*, "accused in court"). Si les choses qu'ils m'ont reprochées sont véritables, qu'ils les prouvent, ou qu'ils passent pour convaincus d'un mensonge; Si… sunt verae, habent multa tribunalia apud quae me postulent reum (407, 445 – "there are many Courts where they can accuse me").[27]

[3] les voies naturelles pour faire croire [*persuadentur*] un point de fait…sont de convaincre les sens; sensibus ingeri oportuerat (482, 526).

aristotelico (1654) by Emanuele Tesauro.

[26] Pascal 1991b: 416. In the *Provinciales*, Pascal (2010: 482, quoted below) uses "faire croire". Latin *credere* is the customary way to express the result of *fidem facere*, and *credibile* is a synonym of *probabile*. Cf. "créances" in *The Art of Persuasion* (1991b: [§ 7]).

[27] See also: "conviction de cette calomnie diabolique; crimen agnoscit… convictus" (Pascal 2010: 434; Lat. trans. 1665: 478); "convaincu d'imposture; calumniae convinci *or* coargui" (Pascal 2010: 330, 401, 436; Lat. trans. 1665: 345, 404, 479).

When a Jesuit says "je m'en vas vous convaincre", it means "Habeo quo vos teneam" (181, 45): "I am catching you" (*OLD teneo* 6).[28] In "Si vous voulez donc les convaincre, montrez que le sens qu'ils attribuent à Jansénius est hérétique", "les convaincre" becomes "haereticos facere" (453, 502): to make heretics of them!

So far, all of Pascal's occurrences of *convaincre* take their meaning from the *disputatio*: forcing an adversary to admit the truth.

3.2. Les Pensées

The *Pensées*, interrupted by Pascal's death in 1662, were first published in 1670 (I will quote the text we know today). My contention is the same: here too, *convaincre* does not have its modern meaning, even though, compared with *The Art of Persuasion*, the overall tone is quite different. In this new context, where the heart is the heart of the Christian brothers Pascal wants to convert, and love is the love of Christ, Pascal does not paint the "heart" side in dreadful colors.

The starting point of the *Pensées* is a meditation on miracles as decisive proofs – in 1656, Pascal's niece has been healed by a miracle. According to his *Life* (Pascal G. 1964: § 41, 619):

> … it was on this occasion that he felt so animated against the atheists that, seeing in the intellectual gifts that God had granted him a means to defeat them and confound them definitively [*de quoi les convaincre et les confondre sans ressource*], he applied himself to this work.

But in the course of the work, Pascal would quickly discover that miracles as proofs are not decisive.

In the expression "les convaincre et les confondre", Marie Pérouse discerns two different operations. She thinks that the expression proves Pascal's "firm intention to persuade the unbelievers (and not only to confound them)" (2013: 276). I agree with her final conclusion that "two goals coexist in his mind": *a)* confounding the atheists, *b)* "strengthening the Christian reader in his faith and devotion" (282). But in my view, the quotation from the *Life* designates one goal only, the first one, *a*, with two verbs – to defeat (*convaincre*) and to silence (*confondre*).[29] In the *Life*, *convaincre* is not a vague synonym of *persuader*.

[28] See also: "vous convaincre; teneri" (Pascal 2010: 325; Lat. trans. 1665: 338); "vous voyez bien que cela est convaincant; in manifesto flagitio tenemini" (Pascal 2010: 401; Lat. trans. 1665: 441).

[29] For *confondre*: e.g., *Pensées* 682. In the first version of the *Life* (Pascal G. 1964: § 40, 584 – italics are mine), *convaincre* repeats *réfuter*: "this extreme desire he had… to *refute* the principal and strongest reasonings of the atheists. He had… used all his mind to seek the means to *convince* them." Cf. Descartes, "convaincre et confondre les Athées"; and Biroat's sermon on Jesus' efforts "pour convaincre et pour confondre les Juifs" (1669: 182).

It is not in the *Pensées* either, as the reader would easily discover.[30] I will take only one example: the short and difficult fragment 269, with five occurrences of *convaincre* (and one of *conviction*). Honor Levi translates the first *convaincre* with "to convince" ("it would be quite easy to convince the unbelievers [*convaincre les infidèles*]") and all the next ones by "to convert" ("we would have no way of converting [*convaincre*] the unbelievers", etc.). Such a translation solves the difficulties of the fragment, but, in my view, is wrong. Fragment 269 is all about *convaincre* in the meaning [1] of Furetière, and its "nous ne pouvons convaincre les infidèles" echoes the "Conuinci possunt": we can (or cannot) force the unbelievers to admit the truth. The theme of the fragment is *not* conversion, i.e. persuasion – conversion is, par excellence, a form of persuasion.

As emphasized by Pérouse, the unfinished *Pensées* have two goals at once. Pascal seems to hesitate between two Quests, certainty and conversion. I would say: his final book is like a chimera. A genetic chimera is a single organism that is composed of two different populations of genetically distinct cells. The *Pensées* comprise cells of *uictoria* and cells of rhetoric. On the one side, *disputatio*, Pascal thinks of forcing the audience to admit the truth of the Christian religion. On the other side, persuasion, he respects the freedom of the audience.

In any case, the difference between the two goals or the two audiences does matter in the *Pensées* – which is of primary importance for our discussion. It is apparent in the concept of "orders", and the splendid idea that confusing orders is a tyranny. The order of the mind is not the order of the heart, i.e. charity (*Pensées* 329, 339). "Proofs only 'convince'[31] the mind" (*Pensées* 661), they have no efficacy outside their realm; and, even within their order, they are not, alas, "absolutely" decisive. A reminder of the Cartesians' "invincibly", *absolument* occurs three times with *convaincant* or *convaincre*. But always in the negative: "The prophecies, even the miracles and proofs of our religion, are not of such a nature that they can be said to be absolutely 'convincing'" (*Pensées* 423).[32]

Pascal's two orders are the two kingdoms I have described above. Christ could have appeared in a manner "absolutely capable of 'convincing' all men" (2000: 142 [fr. 182]; Eng. trans. 2008: 57), but refused to do so, not wishing to force anybody. For Jesus has "the order of charity, not of the intellect [*l'esprit*]", he wanted "to inflame [échauffer], not to instruct [*instruire*]" (*Pensées* 329). In this last expression, customary in rhetoric, we find again the opposition between argumentation (or reason) and emotions: in Latin *docere* – then regularly

[30] *Pensées* 78, 141, 164, 182, 269, 414, 423, 426, 427, 430, 434, 661, 680, 681, 682, 690, 707, 743, 761.

[31] From now on, my '…' around Levi's *convince* indicates it is the old meaning, "refuting", "defeating".

[32] Cf. *Pensées* 141: "But that does not absolutely 'convince' us with ultimate 'conviction'".

translated by *instruire* – vs. *inflammare*, a common equivalent of *mouere*.[33] The order of the mind uses the common method for every kind of (human) dispute or controversy; the order of the heart is (divine) rhetoric. The atheists can be "convinced", forced to admit their error in a *disputatio*; to persuade them to love God, one needs a radically different method, eagerly sought-after by Pascal. Just like Jesus' kingdom, Jesus' rhetoric is not of this world. But as a rhetoric, this divine rhetoric is not relying on "conviction" in the only meaning of the term during the seventeenth century. Rhetoric qua rhetoric implies the freedom of the audience: free assent and approbation.

3.3. *Lamy in 1688:* uictoria *is everywhere*

For Pascal, if "the art of persuasion consists as much in pleasing as it does in convincing", his main problem is to find the rules or a method for pleasing. Since this means in fact 'how to equal Montaigne's success?' there is assuredly no easy answer. But the way Pascal has presented the problem was quite familiar to a seventeenth-century professor of rhetoric: convincing vs. pleasing recalls *logos* vs. *pathos*, and indeed rhetorical treatises provide rules for the second, in a rather optimistic tone. Addressing the future orator, they tend to underestimate the difficulties.

Cicero himself uses the vocabulary of victory sometimes. He does so, precisely, when he indicates three ways of pleasing the audience: *dispositio*, ethos, emotions. In *De Oratore* he says that the good order of the arguments (2.180) or the ethos of the orator (2.182) contribute to victory: "ad uincendum". And, in the *Orator*, he also associates to "uictoria" the emotions, "flectere": "To prove [*probare*] is the first necessity, to please is charm, to sway is victory [*flectere uictoriae*]" (§ 69).[34] Reading Pascal, a professor of rhetoric would have observed that he does sway his reader, for instance in his "Letter to further the search for God" (*Pensées* 681), explicitly called a "letter of exhortation" (*Pensées* 39, cf. also: 38). As any other exhortation, this letter inflames by using emotions or *pathè*, here the pathos "fear", or rather "terror".[35]

Himself a rhetorician, Lamy attempts to solve Pascal's problem. His first answer, at the end of the first and second editions of his *The Art of Speaking* (1675 and 1676), is an annex "in which is given an idea of the art of persuasion".[36] It

[33] Cf. the definition of exhortation by Vossius (1640: 2.23.2, 195 – italics are mine), repeating Erasmus: "haec [suasio], ut in re incertâ, *docet*, eoque plus habet argumentorum; illa [adhortatio] *inflammat*, ac propterea plus habet caloris".

[34] Apart from these occurrences, Cicero in his *rhetorica* has very few *uictoria* and *uincere* of some interest.

[35] Pascal writes, in French, "terrible" (Pascal 2000: 471; Eng. trans. 2008: 160, "dreadful"). In Greek, it is the pathos *phobos* (cf. Arist. *Rhet.*, 1382a-1383b).

[36] This expression appears on the title page.

is in effect a rhetoric, with chapters on *inuentio*, ethos, emotions and *dispositio*. Their unusual order shows the annex is an answer to Pascal. *Inuentio* is the method for finding “preuves”: it reflects Pascal’s left-hand column, convincing the mind. Ethos and emotions correspond to the right-hand column, pleasing the heart, or, in Lamy’ words, the “science de gagner les cœurs” (1676: 255; 1998: 405). Here, as in Pascal and all the treatises, persuasion = convincing + pleasing.

In 1688 – third edition of his book – Lamy turned his annex into a new “fifth” part and, more importantly, added a short chapter, titled “What makes the difference between the orator and the philosopher”, which he inserted between the chapters on *inuentio* (“the philosopher”) and the following chapters (“the orator”). In this new chapter 5.9, Lamy introduced *convaincre* as a technical term, along with a theoretical elaboration. To the best of my knowledge, this is the first occurrence of *convaincre* in a rhetorical treaty. So, let us have a close look at this chapter 5.9 (1688: 325-26; 1998: 402-403).

Convaincre is given a definition (a revealing fact in itself), but this definition brings us nothing new: “the philosophers convince [*convainquent bien*], that is to say, they force to admit that one cannot hold against what they want to prove [*ils obligent d’avouer qu’on ne peut tenir contre ce qu’ils veulent prouver*]” (Lamy 1998: 403), etc. *Persuader* is more interesting. In 5.9, Lamy uses the verb as a synonym of Pascal’s pleasing: “The philosopher can convince, and almost never persuades, whereas an excellent orator does not fail to do either [*ne manque point de faire l’un et l’autre*]” (1998: 402). Instead of persuasion = convincing+pleasing, we now have: persuasion = convincing+persuading (!). Another striking difference with Pascal is that, for Lamy, truth characterizes both convincing *and* “persuading” in this new and restricted meaning: “Only the truth can convince and persuade” (1998: 402).

In sum, while Lamy, as a rhetorician, disagrees with Pascal (yes, there is a method for pleasing, taught by rhetoric), as a Cartesian, he is in complete agreement with one single idea: the idea of *uictoria* lying behind Pascal’s *convaincre*.[37] He likes it so much that he extends *uictoria* – and truth – to the “heart” column of Pascal’s *The Art of Persuasion*. For Pascal, victory and truth belong only to the “mind” column; for Lamy, they belong to both. When the mind and the heart see truth in its splendor, truth “must triumph”: truth “to be victorious only has to make itself known” – “pour être victorieuse elle n’a qu’à se faire connaître” (1998: 403 [very end of the ch. 5.9]). This triumphant exclamation is Lamy’s answer to Pascal.

We can nearly end here our lexicographical inquiry. Fénelon’s influential

[37] Lamy is influenced by Descartes and Malebranche, as well as Port-Royal, his title echoing *The Logic or the Art of Thinking* (1662) by Arnauld and Nicole.

Dialogues on Eloquence, first published in 1718 but probably written in 1679, displays the same opposition as Lamy: “le philosophe ne fait que convaincre” whereas “l’orateur, outre qu’il convainc, persuade” – “the orator not only convinces your judgment, but commands your passions” (Fénelon 1983: 32; Eng. trans. 1722: 67-68).[38] After Fénelon, Lamy’s new and restricted meaning of “persuasion” became usual. According to D’Alembert: “the ancients… have distinguished *persuading* and *convincing*”.[39] It is, in new words, the old opposition between emotions and argumentation, even though, from a mere terminological point of view, the ancient treatises never used *persuadere* or *conuincere* in this way.

D’Alembert’s terminology being the same as ours today, it sounds quite familiar. With one difference: for Lamy and Fénelon “commanding our passions” was highly positive, and is seen today as highly dangerous. In exchange, “convincing our judgment” looks positive, because it has lost any idea of violence or *uictoria*. As a result, *convaincre* is now… a perfect translation for *probare* or *fidem facere*.[40] Compared to what I have described, it is a complete reversal.

4. *Conclusion*

The vocabulary of *uictoria* means that the audience is not left any freedom of choice. This is the key problem, and the objection always made to rhetoric. An orator is suspected to skillfully manipulate us, as if we were puppets, especially when he appeals to our emotions. We may now try to answer the objection.

In a *disputatio* or controversy, *convaincre* forces one’s adversary to admit the truth of a statement. Pascal added a limitation: once can force the mind, but cannot force the heart (or the will). Lamy went further: the excellent orator also forces the heart. One more step, and we find ourselves in the present situation: orators may force the heart, but not the mind, which is definitely free. The final stage should be: in rhetoric, one neither forces the mind, nor the heart. In other words (see: Goyet 2017), the orator co-builds the decision or approbation with the audience. The *co-* implies that the audience is co-author.

[38] Fénelon’s example (1983: 32) evokes the *Pensées*: while the “metaphysician” is only “proving” the existence of God, the “orator” “make[s] you love that glorious Being whose existence he had proved [*faire aimer la vérité prouvée*]. And this is what we call persuasion”. Cf. *Pensées* 222: “The metaphysical proofs of God… have little force”.

[39] “C’est pour cette raison que les anciens… ont distingué *persuader* de *convaincre*” (in Diderot: 521); quoted in Littré *persuader* 1.

[40] For Cicero, in philosophy, or exactly in the *quaestiones infinitae*, there is only *fides*, while in court there is “*et fides et motus*” (*Part. or.* 9), which becomes “Le but, dans la question [in the *quaestio infinita*], est de convaincre; dans la cause [in the trial], de convaincre et de toucher” (Cicero 1835: 305). The sentence echoes Lamy’s phrase, “The philosopher can convince”.

Since rhetoric needs both argumentation and emotions, this no-*uictoria* view concerns the mind, but also the heart. As for the mind, the "rhetorical proof" is simply what we call an argument: a reason developed through argumentation. Some arguments may be strong, others weak, but none is invincible. An invincible or necessary argument is what we call a proof, it leaves the audience no choice. As for the heart, we should also speak of "rhetorical emotions", very strong indeed, but not invincible. When the orator appeals to pity, terror, indignation, etc., the audience is free to pity, or not, and very often does not want to. Even (rhetorical) panic is not invincible. Greta Thunberg said "I want you to panic", but her particular audience didn't want to – and they are entirely free not to – in spite of the terrible effects of the climate change.[41] Pascal had been awed by his discovery of the same indifference: "The immortality of the soul is of such vital concern to us [*une chose qui nous importe si fort*], which affects us so deeply", that indifference ought to be impossible (*Pensées* 681; Pascal 2000: 469; Eng. trans. 2008: 159).

For a rhetorician, it is no surprise that here, in his "letter of exhortation", Pascal should use the language of importance, and importance for us, in technical Latin *magnitudo rei*. Is the immortality of the soul or climate change a truth? This is a question for theological or scientific *disputatio*. What rhetoric makes is something else: it co-builds the feeling that climate change, for instance, is "une chose qui *nous* importe". It is not something important for me alone, or for you alone, but *for us*, *secundum nos*. Importance and "us" have to be co-built, ant *that* is the difficult but not impossible task of rhetoric qua rhetoric. Addressing the audience as an adversary won't help the co-building.

My point was to show that a rhetorical proof is not inferior in dignity to a proof in the modern meaning of the term, i.e. a scientific proof in any sort of controversy or *disputatio*. But this supposes a clear understanding of what pertains to each of those vast territories, rhetoric and science. Scientists have learned, at their expense, the price to pay when they encroach on another domain, politics. All the same, and because of the deep connection between politics and rhetoric, we pay a high price for misunderstanding what was, and still is, a rhetorical proof.

Francis Goyet
University Grenoble Alpes (France)
francis.goyet@gmail.com

[41] End of her speech at the World Economic Forum of Davos, 01-25-2019 (Chonavey: 2021).

References

1. Primary sources

Agricola, Rudolf, 1992, *De inventione dialectica libri tres*, ed. (with a German trans.) by Lothar Mundt, Niemeyer, Tübingen.

Aristotle, 2020, *Art of Rhetoric*, ed. (with an English trans.) by J.H. Freese and Gisela Striker, Harvard University Press, Cambridge, MA.

Arnauld, Antoine, Pierre Nicole, 1664, *La Perpetuité de la foy*, Charles Savreux, Paris.

Augustine, 1841, *Tractatus contra quinque haereses*, *PL* Migne, vol. 42, Migne, Paris.

Bernardo, Giovanni Baptista, 1599, *Thesaurus rhetoricae*, Haeredes Melchioris Sessae, Venice.

Biroat, Jacques, 1669, *Sermons pour tous les jours de caresme*, vol. 1, François Foppens, Bruxelles.

Campanella, Thomas, 1638, *Rationales philosophiae pars tertia, videlicet Rhetoricorum liber unus*, Jean Dubray, Paris.

Cicero, 1835, *Partitiones oratoriae*, French trans. by Bompart (first name unknown), in *Œuvres complètes de Cicéron*, vol. V, Panckoucke, Paris.

—, 1914, *On Ends*, ed. (with an English trans.) by H. Rackham, Harvard University Press, Cambridge, MA.

—, 1942, *De partitione oratoria*, in *On the Orator: Book 3; On Fate; Stoic Paradoxes; Divisions of Oratory,* ed. (with an English trans.) by H. Rackham, Harvard University Press, Cambridge, MA.

—, 1949, *De inventione*, in *On Invention; The Best Kind of Orator; Topics*, ed. (with an English trans.) by H.M. Hubbell, Harvard University Press, Cambridge, MA.

Couillard, Antoine, 1560, *Les Contredicts… aux faulses et abusifues propheties de Nostradamus*, Charles L'Angelier, Paris.

Crespin, Jean, 1555, *Recueil de plusieurs personnes*, Jean Crespin, Geneva.

Digest: *Digesta Iustiniani*, 2018, ed. Theodorus Mommsen (reviewed by Paulus Krueger), Nugis Finem, Olomouc (CZ).

Descartes, René, *Corpus Descartes*, unicaen.fr.puc/sources/prodescartes.

Diderot, Denis (ed.), 1755, *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers* [1st ed.], entry *élocution*, vol. 5, Briasson *et alii*, Paris.

Estienne, Robert, 1549, *Dictionaire Francois-latin*, Robert Estienne, Paris.

Fénelon, François de Salignac de La Mothe, 1722, *Dialogues concerning Eloquence*, English trans. by William Stevenson, John Walthoe, London.

—, 1983, *Dialogues sur l'éloquence*, in *Œuvres*, vol. 1, ed. by Jacques Le Brun, Gallimard, Paris.

Furetière, Antoine, 1690, *Dictionnaire universel*, Arnout and Reinier Leers, The Hague and Rotterdam.

Jerome, 1845, *Dialogus contra Luciferianus*, *PL* Migne, vol. 32, Migne, Paris.

Lamy, Bernard, 1676, *L'art de parler*, André Pralard, Paris.
—, 1688, *La rhetorique ou l'art de parler*, Pralard, Paris.
—, 1998, *La rhétorique ou l'art de parler*, ed. by Christine Noille-Clauzade, Champion, Paris.
L'Espine, Jean de, 1567, *Actes de la dispute et conference… entre deux Docteurs de Sorbonne, et deux Ministres de l'Eglise reformee*, Pierre Estiard, Strasbourg.
Menestrier, Claude-François, 1663, *Novae et veterae eloquentiae placita*, publisher unknown, Lyon.
Pascal, Gilberte, 1964, *La vie de Pascal*, in Blaise Pascal, *Œuvres complètes*, vol. 1, ed. by Jean Mesnard, Desclée de Brouwer, Paris.
Pascal, Blaise, 1665, *Litterae provinciales*, Latin trans. by Pierre Nicole, Nicolaus Schouten, Köln.
—, 1991a, *De l'esprit géométrique*, in *Œuvres complètes*, vol. 3, ed. by Jean Mesnard, Desclée de Brouwer, Paris.
—, 1991b, *De l'art de persuader* (second section of *De l'esprit géométrique*), in *Œuvres complètes*, vol. 3, ed. by Jean Mesnard, Desclée de Brouwer, Paris.
—, 2000, *Pensées*, ed. by Gérard Ferreyrolles, Librairie générale française, Paris.
—, 2008, *Pensées and Other Writings*, ed. by Anthony Levi, English trans. by Honor Levi, Oxford University Press, Oxford.
—, 2010, *Les Provinciales*, ed. by Gérard Ferreyrolles, Garnier, Paris.
—, *Pensées*, penseesdepascal.fr.
Quintilian, 2001, *The Orator's education* [*Institutio oratoria*], ed. (with an English trans.) by Donald A. Russell, 5 vols, Harvard University Press, Cambridge, MA.
Richeome, Louis, 1600, *La Saincte Messe*, Simon Millanges, Bordeaux.
Stapleton, Thomas, 1579, *Principiorum fidei doctrinalem*, Michel Somnius, Paris.
Thesaurus theutonicae linguae, 1573, Christophe Plantin, Antwerp (pages not numbered).
Vossius, Gerardus Joannes, 1640, *Rhetorices contractae sive Partitionum oratoriarum libri quinque* (1st ed. 1621), Joannes Maire, Leiden.

2. Studies

Abbott, Kenneth, William Oldfather and Howard Canter, 1964, *Index verborum in Ciceronis rhetorica*, University of Illinois Press, Urbana, IL.
Chonavey, Sébastien, 2021, "La Maison brûle-t-elle? Une analyse d'une figure 'energique' dans les discours écologistes de Greta Thunberg", *Exercices de rhétorique*, 17, 2021, journals.openedition.org/rhetorique/1235
Gaffiot, Félix, 1934, *Dictionnaire illustré latin-français*, Hachette, Paris.
Glare, P.G.W. (ed.), 2012, *Oxford Latin Dictionary*, Oxford University Press, Oxford [abbreviated as *OLD*].
Goyet, Francis, 2017, *Le regard rhétorique*, Garnier, Paris.

Lausberg, Heinrich, 1998, *Handbook of Literary Rhetoric*, ed. by David E. Orton and R. Dean Anderson, Brill, Leiden.

Littré, Émile, 1958, *Dictionnaire de la langue française*, Gallimard and Hachette, Paris.

Pérouse, Marie, 2013, *L'invention des* Pensées *de Pascal: Les éditions de Port-Royal (1670-1678)*, Champion, Paris.

Régent-Susini, Anne, 2019, "From Probability to the Sublime(s): Early Modern Jesuit Rhetoric; an Anti-philosophy or an Alternative Path to a Modern Idea of 'Truth'?", in *Jesuit Philosophy on the Eve of Modernity*, ed. by Cristiano Casalini, Brill, Leiden: 77-94.

Salliot, Natacha, 2009, *Philippe Duplessis-Mornay: La rhétorique dans la théologie*, Garnier, Paris.

Toulmin, Stephen, 1990, *Cosmopolis: The Hidden Agenda of Modernity*, The Free Press, New York.

Melchor Cano and the conundrum of historical scholarship: Probability and criticism in the sixteenth century

Giuliano Mori

Abstract: This article discusses the role played by the rhetorical-judicial notion of verisimilitude in the sixteenth-century rise of historical criticism. Embracing a dialectical conception of historical facts as something that needed to be extremely probable rather than logically necessary, early modern authors became increasingly concerned with the development of critical tools of verification. Borrowed from the medieval judicial tradition – influenced in turn by classical rhetoric and dialectics – these tools aimed at assessing historical sources and accounts based on their inherent degree of verisimilitude. The judicial background of these tools of assessment explains the rise of historical criticism in environments that were influenced by the innovative legal and philological tradition of the *mos gallicus* (e.g., François Baudouin, Jean Bodin). Yet, at the same time, it also explains the emergence of similar critical notions among authors who independently integrated humanist, late scholastic, and canonistic interests. This was the case, for instance, with Melchor Cano (d. 1560), whose *De locis theologicis* predate both Baudoin's and Bodin's works, providing one of the earliest examples of a fully developed method of historical criticism.

1. *Humanism and the rise of modern historical scholarship: The strange case of Melchor Cano*

Upon tracing the origins of modern historical scholarship, Donald R. Kelley (1970) passingly remarked that "in various medieval legal traditions there were ideas and techniques of vital importance for historical scholarship" (10). In spite of this crucial caveat, modern historical criticism has been generally seen as resulting above all from the methodological innovations introduced by Quattrocento humanists. Classical and medieval jurisprudence – it is often assumed – merely provided the subject matter for pioneering works such as those of François Baudouin and Jean Bodin, whose critical method was nevertheless markedly humanist in character. In fact, by embracing humanist philology, Baudouin, Bodin, and other adherents of the *mos gallicus* sought to reject the exegetical tradition developed by medieval jurisprudents and followed in the sixteenth century by exponents of the *mos italicus* or neo-Bartolism.[1]

[1] For a few examples and variations of this scholarly view, see Cotroneo (1971); J.H. Franklin

philinq X, 2-2022, pp. 159-178
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.426

Legal historians have rightly advanced reservations about the perceived polarity between *mos italicus* and *mos gallicus*, stressing that the two schools were not irreconcilable.[2] Yet, the general narrative concerning the fifteenth-century rise of critical legal scholarship in opposition to earlier, scholastic methods of legal interpretation remains mostly unchallenged, especially among scholars in historiography and philosophy.

According to this view, Guillaume Budé played a special role in paving the way for modern historical criticism. Inspired by the philological genius of Lorenzo Valla and Angelo Poliziano, in his *Adnotationes in Pandectarum libros* Budé was among the first to portray medieval jurisprudence as a misinterpretation of Roman law, occasioned by a fatal combination of scholastic methodologies and philological carelessness. Andrea Alciato soon followed, along with his disciple Baudouin, whose *Institutio historiae universae* (1561) was widely hailed as a manifesto of modern historical scholarship. Five years later, in 1566, Bodin's *Methodus ad facilem historiarum cognitionem* appeared in print. As Huppert (1970) writes, by applying the philological methods of the *mos gallicus* to all historical problems, Baudouin and Bodin erected a scientific system on the foundation of historical jurisprudence (59-60).

This widely accepted narrative is in many ways correct; yet we should not mistake it for an exhaustive explanation of the genealogy of modern historical criticism. The praise ascribed to Baudouin, Bodin and other French scholars such as François Hotman, Étienne Pasquier, and Pierre Pithou is well deserved but theirs was not the only road to critical historiography. The intellectual experience of the Spanish scholastic theologian and inquisitor Melchor Cano offers a powerful antidote to this misconception.

A Dominican friar, famed inquisitor, professor of theology, and – momentarily – Bishop of the Canary Islands, Cano is certainly quite unlike the typical exponent of the *mos gallicus*. Rather, Cano's biography is an example of the most distinguished kind of academic and political career that could be sought within the sixteenth-century Dominican order. Having studied under Francisco de Vitoria in Salamanca, in 1531 Cano was allowed to complete his education at the prestigious Colegio de San Gregorio in Valladolid. There, he began his academic career succeeding his former preceptor as professor of theology in 1536. In 1543, Cano moved to the Complutense University in Alcalá, where he held the first chair in Thomist theology. Finally, having Vitoria died in the summer of 1546, Cano – his most illustrious disciple – was chosen to take his place. Such was Cano's fame as a theologian that in 1551 Charles V chose him as the

(1963); Huppert (1970); Grafton (1991; 2007); Kelley (1964; 1970).

[2] See for instance Maclean (1992).

Emperor's envoy to the Council of Trent, whence Cano returned one year later (cf. Belda Plans 2006: xxxiv-xxxviii; Di Liso 1995: 131-34; Hogenmüller 2016).

During his appointment at the Complutense, Cano started working on his *opus magnum*, the *Loci theologici*, which remained unfinished at his death and was published posthumously in 1563 (cf. Belda Plans 2006: lxx-lxxx). The treatise intended to provide theologians with an array of *loci* functioning as sources of belief or repositories of useful arguments in defense of the Catholic faith against its opponents, Protestants scholars first of all. More specifically, theologians could rely upon ten *loci* offering probative arguments of varying degrees of probability: the Holy Scriptures, the Apostolic tradition, the universal Church, the Councils, the Roman Church, ancient saints and Fathers, scholastic theologians, natural reason, the works of philosophers, and – lastly – human history (Cano 1563: 4-5)

2. *A Scale of Probability*

Cano's apologetic aims were clearly different from those of the French jurists. Notwithstanding, Cano's nuanced conception of argumentative probability (and "probativity") produced a demand for critical discernment that extended to all of Cano's *loci*, including the most innovative one, that of human history (cf. Biondi 1973: xxiv-xxv; Schuessler 2019: 74-75).

As Cano repeatedly remarks, not all of the *loci* could yield equally probative arguments: some *loci* are "very firm", like the Holy Scriptures; others are less certain, like the works of philosophers. Furthermore, firm *loci* do not necessarily produce firm arguments, while questionable *loci* can, under certain circumstances, yield utterly certain arguments (1563: 447). Therefore, the greatest mistake theologians can make is to lack critical diligence, thus failing to correctly assess the degree of probability of their arguments, ultimately taking dubious sources for certain and vice versa (297, 384, 447). In order to avoid this risk, Cano insists on the need to establish a set of criteria or "normae" (436) that theologians could use for the evaluation of topical probability (cf. Schuessler 2019: 75-76).

Probability thus emerges as Cano's core concern. Along with the cognate concepts of credibility, verisimilitude, and plausibility, the notion of *probabilitas* is mentioned no less than 216 times in the *Loci*. Indeed, Cano's entire treatise can be read as an attempt to devise a probative organon where the *loci* are critically discussed and compared with one another, being ultimately ordered along a scale of generally decreasing probability.

First in order come the *loci* of the Sacred Scriptures and the Apostolic tradition. These sources of revealed authority are ipso facto certain, even though they cannot be accepted uncritically. Theologians must ascertain the canonicity of alleged Sacred and Apostolic writings in order to confirm the authentic character of the truths they contain. Sharing a long-standing doctrinal preoccupation, Cano expounds on the ways of discerning between pseudoepigraphic and canonical works. Quite typically, he combines traditional and innovative methods: the authority of the Church's pronouncements on canonicity, on the one hand, and the philological collation of Hebrew, Greek, and Latin witnesses, on the other (1563: 7, 21-24). Cano's interest in authenticity also concerns the third *locus*, namely the authority of the universal Church. Arguments drawn from this *locus* are certain, yet only insomuch as they are authentically universal. Individual opinions within the Church, instead, are merely probable or plausible.

Like the first three *loci*, the fourth is also grounded in authority, more precisely in the authority of the Councils of the Church. In this case, theologians must exert their critical spirit in distinguishing between various kinds of "sub-*loci*" bearing different degrees of probability. While the decisions of general Councils can be held as certain, merely probable arguments can be extrapolated from provincial Councils (175). Furthermore, general Councils too produce probable rather than certain decisions when these do not concern faith but – for instance – mores (188-189).

The fifth *locus*, the authority of the Roman Church, should in principle take the fourth place since it is altogether more certain than the Councils, which derive their infallibility from the approval of the pope (212). Yet, like the Councils, the Roman Church is not a source of invariably certain authority: since God does not constantly assist the pope, who can err in his personal believes, his private opinions and inner faith are merely probable. Nonetheless, the pope's statements are certain when – as we would say today – they are spoken *ex cathedra* (240).

With the sixth *locus* – that is, the authority of ancient saints and Fathers – Cano enters a dangerous territory. To counteract Protestant claims he needed to confirm the authority of the saints, yet he also had to find a way to avoid logical inconsistencies ensuing from the contradictions in their works. To this end, Cano resorts to one of the paramount tools of his comparative critical method, namely the principle of consensus or multiple corroboration. Just as, among celestial bodies, the sun, the moon, and the stars are not equally bright, so too do ecclesiastical writers enjoy different degrees of certainty (248). The authority of ancient saints and Fathers is certain when it concerns faith and reflects universal consensus, being equivalent to the authority of the universal Church. Isolated positions offer arguments that range from little to moderate probability (244-254). Finally, when they regard questions that do not concern faith, even opinions that are largely shared among ecclesiastical writers cannot be considered certain (245-249).

Scholastic authors, whose authority constitutes the seventh *locus*, generally afford less certainty than ancient saints and Fathers. Notwithstanding, most of their conclusions are highly probable, being rationally derived from certain sources of knowledge such as the Holy Scriptures, the Apostolic tradition, and the pronouncements of the Councils (266-267). Cano's defense of scholasticism reveals his conception of theology as a science founded upon human reason and aided by other rational disciplines, including philosophy and history. This stance is implied by the last three *loci* as well, starting with the *locus* of natural reason.[3]

Like all sciences – Cano holds, in keeping with Aristotle – the conclusions of theology are certain when they are based on syllogistic demonstrations, while they are merely probable when founded on enthymematic deductions. Yet, since some theological conclusions exceed the power of human reason and cannot be syllogistically demonstrated, the arguments theologians can draw from natural reason are probable for the most part and certain in isolated cases (298). By the same token, the rational conclusions of philosophers – which constitute the ninth *locus* – can furnish theologians with probable arguments. These are highly probable when based upon the authority of highly respected philosophers and, in accordance with the principle of consensus, essentially certain when based on universal philosophical agreement (308-309).

The critical means by which Cano assesses philosophical probability are also applicable to the field of human history, which constitutes the last and most innovative of Cano's *loci.* Arguments drawn from respected historians are highly probable and can ultimately engender moral certainty if they reflect universal historical consensus (327-328). That said, the works of historians are generally unfit to provide certainty (327). Showing his awareness of humanist philological criticism, Cano insists that one's skepticism must also involve historical accounts that appear highly authoritative such as those related by popes and sacred authors – for example, the account of Constantine's leprosy and his Donation, which had been disproved by Valla. The use of this kind of historical accounts by popes and ecclesiastical writers is not to be taken as a formal act of validation. Popes, like all theologians, need not have recourse to certain and undisputable arguments alone. In order to persuade rhetorically they may also

[3] Cano's rational conception of theology is revealed by his censure of Bartolomé de Carranza's *Comentarios sobre el catechismo cristiano*. Cano's criticized Carranza for embracing positions that reminded of the mystical movement of the Alumbrados. These positions were especially pernicious since they resonated with some of Luther's dismissive claims with regard to the little importance of natural reason as opposed to mystical illumination (Cano 1981: 241-44). A similar error was imputed by Cano to the humanists, who downplayed the role of natural reason in theology, substituting it with grammar and philology, cf. Belda Plans (2006: cx).

rely upon merely plausible historical arguments without ipso facto vouchsafing for their certainty (324-25, 357-358).

In conclusion, it is certainly a mistake to accept historical accounts uncritically; however, one should not infer from the falsity of some historical accounts that human history is an altogether unreliable source of information (357). Yet, the assessment of historical arguments demands a special effort of theologians, who are required to observe specific critical precautions in addition to the criteria applied to the first nine *loci*. Cano's resulting discussion of the methods for assessing the reliability of historical sources constitutes a precocious yet fully mature example of critical historical scholarship, developed more or less independently from the cultural stances that characterized the milieu of authors such as Baudouin and Bodin.

3. *The sources of Cano's Loci*

In order to appreciate the nature and novelty of Cano's critical approach to history it is necessary to entertain the question of its intellectual sources. Most of those who attribute the rise of critical historical scholarship to the cultural innovations of the *mos gallicus* are bewildered by Cano's method of historical scrutiny. Yet, so ingrained and widespread are their historiographical assumptions that the perceived discrepancy between Cano's scholastic background and the cultural stances of French sixteenth-century jurisprudents has failed to modify the prevailing narrative about early modern historical scholarship. On the contrary, Cano's apparent oddity in the context of early modern historical criticism produced two main scholarly reactions that both concern the interpretation of Cano rather than the emergence of critical historiography. Following Girolamo Cotroneo and Julian H. Franklin, some scholars simply denied the actual critical import of the *Loci*, stressing Cano's debt towards the supposedly backward-looking Bartolian and scholastic tradition.[4] Others, instead, acknowledged the modernity of Cano's critical approach, which they explained by means of what I see as a significant overestimatin of the humanist influence over Cano.[5]

Granted, Cano was not positively averse to humanist culture, nor did he reject all of the humanist novelties. Not only had he been attracted to the *stu-*

[4] Cf. *infra*, sections 4-5.

[5] The depiction of Cano as a humanist in disguise is well established. As remarked by Belda Plans (2006: xcviii), in the late nineteenth century Marcelino Menéndez y Pelayo (2019) was already convinced that Cano ought to be considered a humanist in its own right, having nothing to share with Thomist and scholastic philosophers (1:244). This interpretation was eventually embraced by the majority of Cano scholars.

dia humanitatis in his youth but during his formative years he absorbed the lesson of Vitoria's philologically informed Scholasticism, which characterized the entire Salamantine environment.[6] Moreover, Cano was an attentive reader of humanist authors, from Nebrija and Vives to Valla, Lefèvre d'Étaples, and Erasmus. However, rather than embracing the spirit of their works, Cano used humanist notions and tools to pursue his own ends.[7] And, since such ends were often not aligned with the humanist cultural program, it is clear how misleading it may be to overestimate Cano's humanist propensities.

The most notable example of this misinterpretation concerns the widespread conviction that Cano's *Loci theologici* and its critical character were closely modeled upon Rudolf Agricola's *De inventione dialectica*.[8] Cano was obviously cognizant of Agricola's work and he shared with him an interest in developing a dialectical method for discoursing *probabiliter* about one's subject. Yet, Cano's conception of the nature and use of the *loci* is entirely different from Agricola's. Agricola's dialectical innovations are solidly grounded in classical topics. Like Aristotle and Themistius (whom he knew via Boethius), Agricola conceives of the *loci* in markedly ontological terms. The *loci* are, for him, the paramount tool of *inventio* (cf. 1539: 14-15). They function as general classes or "communia capita" of possible predicates that are for the most part essentially or accidentally inherent in the subject of one's discourse, from which they can thus be deduced or induced (1539: 36). They encompass arguments drawn from a subject's definition, genus, species, property, whole, parts, conjugates, adjacents, efficient cause, final cause, effect, place, and time.[9] Thanks to Agricola's *loci*, dialecticians can explore and discover (*invenire*) all the characteristics of their subject, without necessarily resorting to external sources of knowledge. Due to this emphasis on the power of *inventio* inherent in his dialectical method, Agricola attaches relatively little importance to markedly 'nontechnical' (*inartificiales*) arguments that cannot be derived from within the dialectical system. Nontechnical or inartificial arguments were crucial, instead, for less ontological and more judicial kinds of topical formulations. Such was the case, for instance, with Cicero and Quintilian, who respectively defined nontechnical arguments

[6] Cf. Belda Plans (2006: xciv-xcv); Di Liso (1995: 122-31); Muñoz Delgado (1978: 238, 248-50); Olivari (2001: 152, 170-71).

[7] An example of Cano's use of humanist texts is offered by his polemical epistolary exchange with Juan Ginés de Sepúlveda (1730: 21-39). Cf. Biondi (1973: xiii); Valverde Abril (2006: 313-14).

[8] This view has been advanced by virtually all of the major scholars of both Cano and Agricola, cf. *inter alia*: Belda Plans (2006: lxix, cxxxiii); Di Liso (1995: 139); Muñoz Delgado (1978: 214, 254-55); Ong (1958: 93-94).

[9] For an analysis of Agricola's dialectic, cf. in particular: Mack (1993: 117-256; 2011: 56-76); Ong (1958: 92-130); and Vasoli (2007: 225-73).

as those that derive "ex auctoritate" (Cic. *Top.* 4.24) or "extra dicendi rationem" (Quint. *Inst.* 5.1) – for example, legal judgments, hearsay evidence, evidence from torture, written evidence, oaths, and witnesses (Quint. *Inst.* 5.1).[10]

Clearly, Cano's ten theological *loci* differ from Agricola's in both substance and purpose. In terms of classical topics, all of Cano's *loci* are nontechnical or inartificial since they cannot be induced or deduced from the subject of one's discourse, that is the Catholic doctrine. Agricola's interest in dialectical *inventio* has no place in Cano's apologetics, whose probative arguments are drawn from sources of authority that are entirely external to the dialectical system (the Holy Scriptures, the Councils, natural reason, human history, etc.). Cano's *loci* serve a taxonomical and mnemonic purpose: they help theologians organize in an orderly and rhetorically effective fashion the probative arguments that one must have previously collected from the "nontechnical" fields of knowledge discussed in Cano's treatise (cf. Cano 1563: 448-450; Biondi 1973: xv-xvi).

By duly distinguishing Cano's *loci* from the tradition of humanist dialectic, one can better understand his intellectual project, which mostly belonged to the milieu of scholastic philosophy and medieval jurisprudence – precisely the two traditions that sixteenth-century champions of the *mos gallicus* sought to reject. In fact, the Thomist idea behind the *loci* was cited by Cano himself, who saw his work as an attempt to expound on Aquinas' cursory remarks regarding the "loci ab auctoritate" from which theologians could draw arguments for discussing Christian doctrine *probabiliter* or *ex necessitate* (*ST* I, q1, a8).[11] Aquinas' observations opened the first part of the *Summa*, which constituted the object of Cano's course of 1548-49, in Salamanca.[12] Although the surviving student manuscript of Cano's course is not particularly helpful on this point (cf. BAV, Ott.lat.286, fols. 100v-112v), it is probable that Cano should have commented

[10] The arguments considered "nontechnical" by Quintilian and Cicero are subsumed by Agricola under a single *locus* – that of *pronunciata* (1539: 172-175). Agricola's categorization of many *loci* as "external" (e.g., *locus*, *tempus*, *nomen rei*, *connexa*, *contingentia*, *comparata*, *similia*) should not lead us to overestimate the role of nontechnical arguments in his system. It is evident that, albeit considered external by Agricola, *loci* such as *tempus*, *nomen rei,* etc. can still be considered technical, insomuch as – at variance with markedly nontechnical *loci* – they can be inferred from one's subject, although they are less inherently connected to it than "internal" *loci* such as *definitio, genus, species*, etc.

[11] "Hoc autem tempore tantum nobis declarandum fuit cur Divus Thomas diligentissimus absolutissimusque theologus hunc de locis tractatum dereliquerit, si tam est quam nos dicimus theologo necessarius. Et quidem Divus Thomas (in I parte, quaestione 1, articulo 8, ad secundum), restricte breviterque, ut solet, Theologiae locos indicavit, non omnes sed plerosque. Quin etiam, ut homo minime ingratus illi me dedam, cui me tantopere debeo, et huius officii servitutem adstringam testimonio sempiterno, Divus Thomas mihi et auctor et magister fuit huius operis componendi" (Cano 1563: 392).

[12] Cf. Beltrán de Heredia (1933: 183-185); Di Liso (1995: 133-34); Muñoz Delgado (1978: 188-89). These scholars have also suggested that Cano may have drawn further inspiration from *ST* II.2, q1, which he taught in 1544, at the exact time when he started working on the *Loci theologici.*

on Aquinas' passage along the lines of the treatise he was then in the process of writing. In doing so, he had been preceded by Vitoria, who had taught the first part of the *Summa* in 1539-40. With regard to the first article of the *Summa*, Vitoria insisted that theologians can rely upon some "loca communia argumentandi in theologia", namely the Holy Scriptures, the universal Church, the general Councils of the Church, the provincial Councils, the authority of the pope, the consensus of scholastic theologians, natural reason, and the authority of philosophers (cf. Langella 2007: 76-77).

4. *The judicial inspiration of Cano's critical method*

The precedent of Vitoria does not diminish the novelty of Cano's approach, which concerns in particular the inclusion of history among the theological *loci* and the connection established between the topical tradition and the problem of source criticism. According to Cano, one of the theologians' tasks is to develop a critical method for the analysis of historical works, learning to discriminate (*internoscere*) between authoritative (*probabilis ac fide dignus*) and untrustworthy historians (1563: 321-22).

To devise this method and, more generally, the rules for assessing the probability of different topical arguments, Cano sought guidance in the legal tradition, which in turn reflected some of the typical concerns of medieval scholastic probabilism.[13] Cano's choice was rather natural, due to both personal and intellectual reasons. Not only was Cano familiar with the jurisprudential tradition of the School of Salamanca but he had also earned the reputation of being an extraordinary inquisitor – a veritable hound (*canis*) that could pick up the slightest scent of heresy, he would remark in punning allusion to his name (1563: 442; cf. also: Bataillon 1966: 702-3; Olivari 2001: 175).

Yet, even more important than Cano's personal experience was the substantial analogy between the critical demands of the *Loci theologici* and the epistemological concerns that informed medieval and Renaissance jurisprudence. Concentrating in the hands of the inquisitor the functions of both the judge and the prosecutor, the inquisitorial paradigm placed extraordinary emphasis on the epistemological task of the inquisitor, who was required to reach virtual certainty about crimes whose proof, in most cases, depended on merely

[13] Scholastic philosophers such as John of Salisbury, Thomas Aquinas, and Henry of Ghent elaborated critical notions that allowed them to choose between opinions that presented different degrees of probability, cf. Giuliani (1961: 148-49); Schuessler (2019: 185). In the fifteenth and sixteenth centuries, lists of philosophical and judicial criteria for the assessment of doxastic probability were formalized by authors including Konrad Summenhart, John Major, and Martín de Azpilcueta, cf. Schuessler (2019: 185-93, 214-15).

probable evidence. To this end, medieval and Renaissance judges needed to rely upon a dependable method for evaluating fragmentary and dubious pieces of evidence, assessing and comparing their degree of probability so as to ultimately determine their weight in the process of reaching judicial certainty (*fides*) about suspected crimes.[14]

A growing attention for issues related to the assessment of probability characterized late medieval discussions about circumstantial evidence. From the thirteenth century onwards, jurists including Azo of Bologna, Guillaume Durand, Alberto Gandino, Thomas de Piperata, Baldo de Ubaldis, and Bartolus de Saxoferrato developed a highly sophisticated system whose aim was to distribute different kinds of evidence upon a formalized scale of probability. In Gandino's words: "there are many kinds of presumptions… some are accidental (*temeraria*) and of little weight, others are probable and distinct; others still are called violent (*violenta*)" (1560: 53).[15]

Furthest from certainty was "accidental" or "fallible" evidence (*indicia temeraria* or *fallacia*), followed by remote *indicia*, which were in turn superseded by probable and sufficient proofs. The latter could be considered "half-proofs" (*provae semiplenae*) since they sufficed the judge to begin an inquisition. More persuasive than *provae semiplenae* were violent (*indicia violenta* or *vehementes*) proofs of the kind that was classically illustrated by Thomas de Piperata: in the case of a homicide, someone pale, holding a bloody sword, is seen leaving a room with only one entrance, where a body is found (1563: fol. 13r). These violent proofs – most jurists believed – paralleled necessity in the degree of credence they entailed. It is clear, therefore, that the judicial scale of evidential probability run parallel to another scale that measured the conviction of the judge, which ranged from the lowest degree of *dubitatio* to the highest degree of *credulitas*, through the intermediate stages of *suspicio* and *opinio*.[16]

The judicial discussion of circumstantial evidence informed not only the way Cano conceived and organized his ten *loci*, but also some of the tools he developed in order to assess the probative weight of specific claims. Let us take, for instance, Cano's celebrated criteria for assessing historiographical trustworthiness.

The first rule theologians must follow involves the reputation (*fama*) of historians as faithful reporters of witnessed events. The reliability of historical ac-

[14] With regard to the crucial role of probable knowledge in medieval jurisprudence, cf. *inter alia*: Alessi Palazzolo (1979: 3-98); Cavallar and Kirshner (2020: 253-396); Franklin J. (2001: 12-63); Giuliani (1961: 115-205); Rosoni (1995); Sbriccoli (1968: chap. 4); Ullmann (1946); and Vallerani (2008).

[15] "Praesumptionibus autem multae sunt species… alia temeraria, et levis, alia probabilis et discreta, et alia dicitur violenta".

[16] Cf. for instance: Saxoferrato (1596: fol. 30v). Cf. also in this regard: Alessi Palazzolo (1979: 43-45); Bassani (2017: 174-79); Franklin J. (2001: 29-30); Rosoni (1995: 236-37); and Ullmann (1946: 85-86).

counts is directly proportional to their authors' honesty (*probitas*) and integrity (*integritas*). These virtues condense classical deontological requirements, including those of historical impartiality, frankness, and modesty. Accordingly, theologians should not automatically prefer Christian authors over pagan historians, since due to their partial agenda – Cano regretfully recognizes – Christian historians and hagiographers often displayed less honesty and integrity than many pagan authors (1563: 373, 376-77). Cano's second critical rule also concerns the reputation of historians, shifting the focus to their critical attitude as displayed in reporting events secondhand, which should be done without paying heed to rumors and unconfirmed sources. In Cano's words, in such cases, "those historians ought to be preferred, who combined a stern judgment with a discerning attitude, both in selecting and in examining [historical sources]" (377).[17] Finally, the third rule relies upon the authority of the Church as defined by the third, fourth, and fifth *locus*: historians that are declared to be reliable by the authority of the Church should so be considered (377), bearing in mind the abovementioned proviso about the rhetorical use of merely plausible historical arguments such as the Donation of Constantine.

These criteria have elicited different responses from Cano scholars. Praised by some for their critical spirit, others have discarded them as being founded upon merely probabilistic, subjective and thus "unscientific" notions such as that of one's reputation.[18] Yet, far from being subjective in character, Cano's methodical principles are "scientific" and critical precisely because of their probabilistic character or, better, because they are modeled after the scientific system of judicial assessment of probability, which included crucial elements such as the reputation of the witnesses and the *fama* of the crime.

With the shift from accusatorial to inquisitorial judicial paradigms, the *fama* of suspected crimes acquired a crucial function, personifying the accuser. It became the inquisitor's task both to give voice to the *fama* of a crime (in his capacities as prosecutor) and to critically evaluate the inherent plausibility of such *fama* (in his capacities as judge). What is more, inquisitors were also required to assess the reputation of witnesses in order to evaluate the reliability of their testimonies (cf. Cavallar and Kirshner 2020: 286-317; Vallerani 2008: 125-32). This process of evaluation was founded on the judicial notion of probability or verisimilitude, defined – in keeping with Cicero – as the attribute of the actions expected of a person in view of their individual character and social status (*Inv. rhet.*, 1.29; Cic. *Rhet. Her.*, 1.16).

[17] "Lex vero secunda in historiae iudicio sanciatur ut eos historicos reliquis anteferamus qui ingenii severitati quamdam prudentiam adiunxerunt et ad eligendum et ad iudicandum".

[18] Cf. for instance: Cotroneo (1971: 281-301).

In addition to the notion of *fama*, judicial criteria inspired other crucial features of Cano's critical methods such as the principle of consensus.[19] Cano considers consensus as the main factor in increasing the probability of topical arguments. This is true not only for the authority of the universal Church, but especially for less-than-certain arguments such as those extrapolated from the writings of ancient saints, philosophers, and historians. In such cases, Cano follows the well established judicial rule of multiple witness corroboration, which provided that uncertain testimonies should be considered highly probable or virtually necessary when corroborated by independent witnesses.[20] This is the case, for instance, with the many probable arguments drawn from the ancient saints that converge on proving that Peter founded the Church in Rome (Cano 1563: 235-236).

Cano's use of consensus calls into question another judicial notion. Since the adoption of written inquisitorial procedures as a legal standard, it became a requirement to base criminal sentences on proofs that needed to be "plenissimae", "indubitatae", "luce meridiana clariores", and "liquidissimae".[21] Cano shared this aspiration, seeking to provide defenders of the Faith with proofs "luce meridiana clariores" in order to refute heretics and other such enemies of the Church (1563: 435-436). Yet, both in the judicial and the apologetic context, the demand for certain proofs clashed with the inherently probable nature of most available evidence. In order to overcome this difficulty, medieval jurists devised a variety of methods whose common aim was to allow judges to reach necessary conclusions from merely probable premises. To this end, multiple probable arguments pointing to the same conclusion could be combined, thus increasing their overall probability, ultimately engendering the same measure of credence that was normally connected to an undoubted piece of evidence. For instance, two *provae semiplenae* could add up to a violent presumption, especially when corroborated by one or more adminicles (*adminicola*); a simple *adminiculum*, instead, did not have probative value per se, but could be considered as a remote *indicium*, when added to concurrent *adminicula*.[22]

Cano adapted the judicial practice of combining probabilities to the dialectical organon of the *Loci theologici*. In order to reach virtually certain conclusions, one could combine arguments drawn from the same *locus* but, most importantly, one could also combine probable arguments drawn from different

[19] The principle of consensus was also a crucial element in scholastic criteria for the assessment of probable opinions, cf. Schuessler (2019: 202-6, 217-38).

[20] On the judicial notion of multiple witness corroboration, cf. Alessi Palazzolo (1979: 12-13); Biondi (1973: xliv); Franklin J. (2001: 192-93); Shapiro (2003: 18-19).

[21] Cf. Alessi Palazzolo (1979: 5-7); Rosoni (1995: 70).

[22] Cf. Alessi Palazzolo (1979: 55-65); Rosoni (1995: 88, 143-44, 208, 251).

loci. For instance, Cano believes that even if the Sacred Scriptures are silent about the Roman bishops that immediately followed Peter, one can be certain of the unbroken tradition connecting the papacy to Peter by combining individually probable arguments drawn from ancient saints, human history, and natural reason (1563: 237). By the same token, he concludes that, unlike other Roman bishops, Peter never erred in his personal believes, as proven with virtual certainty by the combination of converging arguments drawn from the probable *loci* of ancient saints, scholastic theologians, and natural reason (238-39).

5. *Humanist tools and Cano's critique of the Antiquitates by Annius of Viterbo*

The critical principles illustrated by Cano have not been met with unreserved praise, being criticized for their allegedly quantitative rather than qualitative character (cf. Cotroneo 1971: 290-91; Franklin J.H. 1963: 110-11). Yet, it should be remarked, Cano's use of notions such as those of consensus and multiple witness corroboration is far from undiscerning: authorities are weighed, not counted. For instance, Cano demonstrates that consensus may be merely apparent if it does not originate from the convergence of independent witnesses but from the mechanical trasmission of probable opinions from one generation to the next. In such cases, when a probable opinion is reported secondhand, rather than increasing, its probability is diminished since – scholastic philosophers agreed – it becomes a merely probable probability (Cano 1563: 275-76, 329-30; cf. also: Schuessler 2019: 335-36).

These critical provisos, which originally belonged to the scholastic and judicial tradition, were perfected by Cano thanks to humanist tools.[23] Not only did Cano rely on philological considerations in order to clarify specific claims about the Holy Scriptures, Apostolic tradition, and ancient saints. Most importantly, he also used philology as an auxiliary tool in assessing the validity of consensus. In keeping with the principle we know as *eliminatio fontium descriptorum*, Cano recognized that claims that appear extremely widespread can often be reduced to the influence of one textual source. This critical notion informs Cano's discussion of the "double paternity" of Joseph, who was said to be the son of Jacob and Heli by Matthew (Mt. 1:16) and Luke (Lk. 3:23) respectively. Julius Africanus first solved the contradiction in suggesting that Jacob was Joseph's biological father, while Heli being his legal parent. Although this interpretation had been vouched by most ecclesiastical authors, consensus – Cano remarked – was merely apparent, since it derived from a single textual

[23] See for instance: Cano (1563: 331-32, 349).

source, namely Julius Africanus himself, who also admitted that his explanation was based upon mere hearsay and thus was markedly uncertain (1563: 322, 328-30; cf. also: Biondi 1973: xxv-xxvii).

The effectiveness of Cano's critical method is revealed by his treatment of Annius of Viterbo. The *Antiquitates*, published in 1498, marked the culmination of Annius' career as a forger. Thanks to a series of spurious annalistic fragments that he had allegedly discovered and edited, Annius advanced his highly idiosyncratic view of the history of the world. Most deceitfully, Annius included among his pseudo-fragments a bogus historiographical tract by a certain Persian priest Metasthenes, whose aim was to validate the kind of pseudo-annalistic texts published in the *Antiquitates.* According to Metasthenes, truth was not to be found in the ornate works of classical historians but in the raw data recorded by ancient priests, who "were once the notaries public (*notarii*) of the times and deeds" (Annius of Viterbo 1512: fol. 84v).[24] Metasthenes' rule was further qualified by another spurious text by the Greek Myrsilus, who established that one should trust above all the autochthonous annals of each ancient nation (fol. 53v) – precisely the kind of texts published in the *Antiquitates*.

In spite of the implausibility of his historical claims, Annius' grandiose "fiction of philology" (cf. Stephens 2004: S216-217) and his pose of antiquarian integrity misled many humanist authors, who were elated by the alleged discovery of precious classical fragments. Nevertheless, Annius' masquerade did not convince Cano, who penned one of the first and most influential censures of the *Antiquitates*. Metasthenes' rules – Cano remarked – were most detrimental, as proved by the fact that many a learned man kept prating (*hallucinari*) about them (1563: 361).

Annius rules offered Cano a negative example that served as inspiration in formulating a set of historiographical criteria aimed at defending the reliability of arguments drawn from human history against forgers such as Annius (Cano 1563: 325; cf. also: Biondi 1971: 50-51; 1973: xxxiii, xxxvii-xl; Cotroneo 1971: 293-94). To evaluate the reliability of historical accounts, Cano believes that one cannot rely upon mechanical and dogmatic rules such as Annius'. On the contrary, it is necessary to apply critical discernment to each individual case, combining assessment criteria that include the reputation of the examined historians, the philological plausibility of their accounts, and their degree of probability within the tradition independently validated by other witnesses and sources of knowledge.

Thanks to these criteria, Annius' forgeries were immediately exposed. A com-

[24] "Prima regula est ista: suscipiendi sunt absque repugnantia omnes qui publica et probata fide scripserunt. Et declarat quod sacerdotes olim erant publici notarii rerum gestarum et temporum".

parative analysis of surviving sources demonstrated that Metasthenes' rules hinged upon false premises concerning the archaic historiographical practices adopted by the Greeks and other Near Eastern peoples (Cano 1563: 360-362). Furthermore, by referring to the consensus of critically ascertained authors, Cano could show that Annius' pseudo-authorities were completely isolated and the archival documents they mentioned simply non-existent. Finally, a comparative philological analysis of the texts published in the *Antiquitates* revealed the spuriousness of authors such as pseudo-Berosus and pseudo-Philo, whose tracts clashed with surviving fragments attributed to the real Berosus and Philo (364-66).

Cano's condemnation of Annius is significant not only for its contribution to the history of early modern scholarship but also because it emblematizes the nature of Cano's criticism. Rather than owing its methodology to humanist innovations, Cano's criticism was grounded in scholastic and specifically judicial methodologies. These were perfected, however, through the adoption of humanist philological tools.

The skillful integration of different traditions guaranteed the success of Cano's critical approach. While many medieval authors had embraced probabilistic and critical assumptions not unlike Cano's, their assessment criteria in comparing probable opinions were hampered by the ignorance of philological notions that could help interpret the inherent characteristics of textual sources. By the same token, humanist philological tools per se were also insufficient to ensure the emergence of "modern" critical scholarship. In fact, the greatest critical feats were accomplished in the humanist milieu by authors, such as Valla and Poliziano, who combined critical acumen with a judicial and rhetorical method for comparing and assessing probabilities.[25]

6. *Conclusion: The multiple ways to modern historical scholarship*

Cano's critical method invites us to rethink some widespread assumptions about the rise of modern historical scholarship as the result of the humanist battle against the allegedly uncritical and authoritarian forces of scholasticism and Bartolism.

As a matter of fact, with the notable exception of the adoption of humanist philology, even in Baudouin's and Bodin's historiographical method, the most significant elements are hardly those that derive from the humanist theory of history, which was founded on "rediscovered" historiographical principles derived from Cicero, Lucian, Thucydides, Dionysius of Halicarnassus, and Varro. The need for historical impartiality, the conception of the historian's task as that of

[25] See in this regard my discussion of humanist criticism and judicial probability (2020).

seeking truth and truth alone, even the anti-rhetorical stance and the focus on the history of institutions, which were first adopted by Quattrocento antiquarians in opposition to the traditional current of humanist historiography – all these notions played a crucial role in revolutionizing fifteenth-century historiography but had become little more than trite topoi by the time they were rehearsed by Baudouin (1561: 33-34, 56-57, 206-8) and Bodin (2013: 88, 148, 160, 166, 182).[26]

Rather than resulting from a rejection of scholasticism and Bartolism, the critical strengths of the works produced in the environment of the *mos gallicus* were owed to a comparative approach that was not foreign to the medieval judicial tradition. For instance, in his *Institutio historiae universae*, Baudouin made an effort to distinguish the different degrees of probability that characterized diverse kinds of testimonies, ranging from highly reliable eye-witnesses and public documents to unreliable rumors via moderately reliable reported authorities (cf. Kelley 1970: 132; Shapiro 2003: 35-36). Bodin's *Methodus* was also inspired by markedly judicial procedures. Like Baudouin, Bodin placed great attention on the evaluation of testimonies and included among his assessment criteria traditional notions such as the reputation of witnesses, which he discussed with regard to Tacitus (2013: 192; cf. also: Melani 2006: 188).

Another example of the judicial background of Baudouin and Bodin's critical strengths is offered by their call to strike a balance between credulity and incredulity, as was required of inquisitors, who needed to assess probative elements so as to climb the scale of judicial conviction, reaching judicial certainty (Baudouin 1561: 49-52; Bodin 2013: 144). To this end, Baudouin and Bodin also insisted on the need to compare as many witnesses as possible, in the hope of reaching historical consensus. In this regard, their effort was in essence analogous to that of Cano, from whom they nonetheless differed in their universalistic aims. According to Bodin, by studying the history of all peoples and epochs, one could find a universal standard against which to comparatively assess the plausibility of all historical and legal claims (2013: 68-70, 102, 114, 154, 220, 388-90). One ought to embrace stances that seemed to cohere with the universal standards – for instance, many of Machiavelli's analyses – while rejecting as unreliable particular accounts that clashed with the consensus established by universal history – for instance Paolo Giovio's biographies (178, 388-90, 412-14). Similar critical intentions also underlay Baudouin's universalism, which was further qualified in line with Erasmus' irenicism (cf. Kelley 1964: 42-43; 1970: 128).

As these reflections suggest, there were many possible roads to modern his-

[26] Rather than resulting in a critical attitude, the adoption of humanist antiquarian stances might have been responsible for some of Baudouin's and Bodin's critical shortcomings, such as their acceptance of Annius' chronology: cf. Baudouin (1561: 77); Bodin (2013: 154, 555, 654-60, 688-90, 696).

torical criticism. All of them, however, required two distinct factors. First, a comparative methodology whose precedents could be found in scholastic and judicial probabilism. Secondly, an auxiliary set of technical tools introduced by fifteenth-century humanists and concerning the philological analysis of textual traditions in particular. These two components of the "modern" critical method were not uniquely available in one cultural milieu. On the contrary, as the history of modern historical scholarship demonstrates, they could be found both in the environment of the *mos gallicus* (which did not forsake the judicial comparative tradition, though wishing to revolutionize legal scholarship through humanist philology) and in more "traditional" or "conservative" contexts, as in the case of Cano (whose inquisitorial and scholastic background was open to at least some of the innovations introduced by humanist culture, despite being unwilling to embrace the humanist program on the whole).

Giuliano Mori
University of Milan
giuliano.mori@unimi.it

References

1. Manuscript sources

Vatican City, BAV, Ott.lat.286.

2. Primary sources

Aquinas, Thomas, 1948, *Summa theologiae*, ed. by Pietro Caramello, 5 vols, Marietti, Rome and Turin.

Agricola, Rodolphus, 1539, *De inventione dialectica*, Apud haeredes Simonis Vincentii, Lyon.

Annius of Viterbo, 1512, *Antiquitatum variarum volumina XVII*, Joannes Parvus et Iodocus Badius, Paris.

Baudouin, François, 1561, *De institutione historiae universae*, Apud Andream Wechelum, Paris.

Bodin, Jean, 2013, *Methodus ad facilem historiarum cognitionem*, ed. by Sara Miglietti, Edizioni della Normale, Pisa.

Cano, Melchor, 1563, *De locis theologicis*, Mathias Gastius, Salamanca.

—, 1981, "Qualificación hecha por los Maestros Cano y Cuevas del Catechismo (y de otros escritos) 1558-1559", in Ignacio J. Tellechea Idigoras, ed., *Fray Bartolomé de Carranza. Documentos históricos VI. Audiencias III (1563)*, Real Academia de la Historia, Madrid.

Cicero, Marcus Tullius, 1903, "Topica", in Marcus Tullius Cicero, *Rhetorica*, ed. by Augustus Samuel Wilkins, vol. 2, Clarendon Press, Oxford.

—, 1915, *Rhetorici libri duo qui vocantur de inventione*, ed. by Eduard Stroebel, Teubner, Leipzig.

[Cicero, Marcus Tullius], 1954, *Rhetorica ad Herennium*, ed. and trans. by Harry Caplan, Harvard University Press, Cambridge, MA.

Gandino, Alberto, 1560, "Tractatus de maleficiis", in *Tractatus diversi super maleficiis*, P. Hieronymus Lilius, Venice.

Ginés de Sepúlveda, Juan, 1730, "Joannis Genesii Sepulvedae epistolae duae ad Melchiorem Canum, et Cani ed eundem", in Juan Ginés de Sepúlveda, *Opera*, vol. 3, Ex typographia regia de la gazeta, Madrid.

Piperata, Tommaso da, 1563, "Tractatus de fama", in Giovanni Battista Ziletti, ed., *Tractatus criminales*, Aurelius Pincius, Venice.

Quintilianus, Marcus Fabius, 1970, *Institutionis oratoriae libri duodecim*, ed. by M. Winterbottom, 2 vols, Clarendon Press, Oxford.

Saxoferrato, Bartolus de, 1596, *Commentaria: In secundam Digesti veteris partem*, ed. by Iacobus Anellus De Bottis *et al.*, Apud Iuntas, Venice.

3. Studies

Alessi Palazzolo, Giorgia, 1979, *Prova legale e pena: La crisi del sistema tra evo medio e moderno*, Jovene, Naples.

Bassani, Alessandra, 2017, *Udire e provare: Il testimone de auditu alieno nel processo di diritto comune*, Giuffrè, Milan.

Bataillon, Marcel, 1966, *Erasmo y Espana: Estudios sobre la historia espiritual del siglo 16*, Fondo de cultura economica, México and Buenos Aires.

Belda Plans, Juan, 2006, "Introducción general histórico-teológica", in Melchor Cano, *De locis theologicis*, ed. by Juan Belda Plans, Biblioteca de autores cristianos, Madrid: xxxiii-cxli.

Beltrán de Heredia, V., 1933, "Melchor Cano en la Universidad de Salamanca", in *Ciencia tomista*, 48: 178–208.

Biondi, Albano, 1971, "Melchor Cano: La storia come *locus theologicus*", in *Bollettino della società di studi valdesi*, 92, 130: 43-53.

Cavallar, Osvaldo and Julius Kirshner, 2020, *Jurists and Jurisprudence in Medieval Italy: Texts and Contexts*, University of Toronto Press, Toronto.

—, 1973, "Introduzione: Melchiorre Cano e l'esperienza storico-filologica dell'Umanesimo", in Melchor Cano, *L'autorità della storia profana*, ed. by Albano Biondi, Giappichelli, Turin, vii-liv.

Cotroneo, Girolamo, 1971, *I trattatisti dell'"ars historica"*, Giannini, Naples.

Di Liso, Saverio, 1995, "Melchor Cano e i *Loci theologici*", in Ada Lamacchia, ed., *La filosofia nel siglo de oro: Studi sul tardo rinascimento spagnolo*, Levante, Bari, 119-67.

Franklin, James, 2001, *The Science of Conjecture: Evidence and Probability before Pascal*, Johns Hopkins University Press, Baltimore.

Franklin, Julian H., 1963, *Jean Bodin and the Sixteenth-Century Revolution in the Methodology of Law and History*, Columbia University Press, New York.

Giuliani, Alessandro, 1961, *Il concetto di prova: Contributo alla logica giuridica*, Giuffrè, Milan.

Grafton, Anthony, 1991, *Defenders of the Text: The Traditions of Scholarship in an Age of Science, 1450-1800*, Harvard University Press, Cambridge, MA.

—, 2007, *What Was History? The Art of History in Early Modern Europe*, Cambridge University Press, Cambridge.

Hogenmüller, Boris, 2016, "Cano, Melchor", in Marco Sgarbi, ed., *Encyclopedia of Renaissance Philosophy*, Springer, Cham.

Huppert, George, 1970, *The Idea of Perfect History: Historical Erudition and Historical Philosophy in Renaissance France*, University of Illinois Press, Urbana, IL.

Kelley, Donald R., 1964, "Historia Integra: Francois Baudouin and His Conception of History", in *Journal of the History of Ideas*, 25, 1: 35-57.

—, 1970, *Foundations of Modern Historical Scholarship: Language, Law, and History in the French Renaissance*, Columbia University Press, New York.

Langella, Simona, 2007, "El comentario de Francisco de Vitoria a la I *quaestio* de la *Summa Theologiae* de Tomás de Aquino", in *Archivo Teológico Granadino*, 70: 55-83.

Mack, Peter, 1993, *Renaissance Argument: Valla and Agricola in the Traditions of Rhetoric and Dialectic*, Brill, Leiden.

—, 2011, *A History of Renaissance Rhetoric 1380-1620*, Oxford University Press, Oxford.

Maclean, Ian, 1992, *Interpretation and Meaning in the Renaissance: The Case of Law*, Cambridge, Cambridge University Press.

Melani, Igor, 2006, *Il tribunale della storia: Leggere la Methodus di Jean Bodin*, Olschki, Florence.

Menéndez y Pelayo, Marcelino, 2019, *La ciencia española*, ed. by Víctor Navarro Brotons *et al.*, Fundación Ignacio Larramendi, Madrid.

Mori, Giuliano, 2020, "Truth, Verisimilitude and Criticism in Lorenzo Valla: Dialectics and Historiography", in *Quaestio*, 20: 417-38.

Muñoz Delgado, Vicente, 1978, "Lógica, ciencia y humanismo en la renovación teológica de Vitoria y Cano", in *Revista española de teología*, 38, 3: 205-71.

Olivari, Michele, 2001, "Le facce diverse di Melchor Cano", in Adriano Prosperi, ed., *Il piacere del testo: Saggi e studi per Albano Biondi*, Bulzoni, Rome, 149-76.

Ong, Walter J., 1958, *Ramus, Method, and the Decay of Dialogue: From the Art of Discourse to the Art of Reason*, Harvard University Press, Cambridge, MA.

Rosoni, Isabella, 1995, *Quae singula non prosunt collecta iuvant: La teoria della prova indiziaria nell'età medievale e moderna*, Giuffrè, Milan.

Sbriccoli, Mario, 1968, *L'interpretazione dello statuto: Contributo allo studio della funzione dei giuristi nell'età comunale*, Giuffrè, Milan.

Schuessler, Rudolf, 2019, *The Debate on Probable Opinions in the Scholastic Tradition*, Brill, Leiden.

Shapiro, Barbara J., 2003, *A Culture of Fact: England, 1550-1720*, Cornell University Press, Ithaca, NY.

Stephens, Walter E., 2004, "When Pope Noah Ruled the Etruscans: Annius of Viterbo and His Forged *Antiquities*", in *MLN*, 119, 1: S201-23.

Ullmann, Walter, 1946, "Medieval Principles of Evidence", in *Law Quarterly Review*, 62: 77-87.

Vallerani, Massimo, 2008, "Modelli di verità: Le prove nei processi inquisitori", in Claude Gauvard, ed., *L'enquête au Moyen Âge*, École francaise de Rome, Rome: 123-42.

Valverde Abril, Juan Jesús, 2006, "Teología y humanismo: La correspondencia entre Juan Ginés de Sepúlveda y Melchor Cano", in *Florentia Iliberritana*, 17: 291-335.

Vasoli, Cesare, 2007, *La dialettica e la retorica dell'Umanesimo: invenzione e metodo nella cultura del XV e XVI secolo*, La città del sole, Naples.

The Baby Jesus in a Drop of Blood: Evidence, Credibility, and Truth in Post-Reformation Catholicism

Stefania Tutino

Abstract: In the spring of 1693, a strange occurrence shook up the peaceful little town of Bolsena. While visiting the site of the well-known medieval miracle, Agostino Berton, a hemp and textile seller, witnessed yet another miracle: the apparition of an image of the baby Jesus inside a drop of blood. In this essay, I examine the investigation conducted by the Roman leaders over this case and discuss its implications for the relationship between credibility and truth in seventeenth-century Catholicism. Over the course of the Middle Ages, theologians, canonists, and jurists had provided an important reconsideration of the category of credibility as both a feature of the Christian faith and a necessary (and, in some cases, sufficient) basis for legal judgment. By the early modern times, credibility had come to occupy a central place in Catholic discourse. This centrality led to novel insight into the relationship between truth and evidence, faith and belief, causing new moral, doctrinal, and epistemological tensions. My essay uses Agostino's story as a springboard to explore some of those tensions.

1. *Introduction*

This volume investigates several early modern developments of the rhetorical/forensic tradition of persuading somebody of the truth of one's case by means of arguments, clues, and conjectures, seen alongside other methods of verification and proof, such as logical or mathematical demonstrations and statistical probabilities. Taken together, the essays in this collection provide a wide-ranging discussion on how early modern culture grappled with problems of truth, knowledge, and certainty, in the face of different and at times competing intellectual, philosophical, religious, and political pressures. In this essay, I seek to approach these themes in the context of early modern Catholic theological debates, in which the discussion around proof, evidence, knowledge, and certainty was never disjointed from the issue of divinely-revealed truth. The topic of my essay is the relationship between the truth and the credibility of religious beliefs. The distinction between truth and credibility is a useful lens for us to examine how early modern Catholic theologians engaged with the dialectic between the kind of knowledge that can be attained by means of human reason, and the kind of

philinq X, 2-2022, pp. 179-196
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.427

certainty that can be achieved by means of divinely-revealed truth. Analyzing the complexity of this dialectic, I argue, enables us both to appreciate important epistemological, theological, and cultural aspects of post-Reformation Catholicism, and to put early modern Catholic culture in conversation with wider and deeper currents in early modern European thought.

2. *Truth and Credibility in Pre-Modern Catholic Discourse*

Since at least the times of Augustine, the relationship between credibility and truth has been a central, if ambivalent and complex, aspect of Catholic theology. Augustine clearly stated that the truth of doctrine cannot be verified by means of human reason, and therefore the only reliable criterion we have to distinguish true faith from false beliefs is the authority of the Christian Church insofar as it is inspired and guided by the Holy Spirit. As he famously put it, "I would not have even believed in the Gospel unless the authority of the Catholic Church had convinced me" (*c. ep. Man.,* 5).[1] Once the Church points us in the right direction, embracing the faith is an act of the will, which we can accomplish only with the supernatural assistance of God's grace. At the same time, Augustine also stated that the intellect does have a role to play in the process of believing. In his *De libero arbitrio* he openly stated that the Christian God, far from condemning men's impulse to know, actually encourages it. For Augustine, however, intellectual knowledge comes after, not before, our will's decision to believe. Quoting the verse in the Sermon on the Mount in which Jesus told his audience "seek, and ye shall find", Augustine commented that "what is believed without being known cannot be said to have been found, and nobody is able to find God unless he comes to know what he has first believed" (*de lib. arb.* 2.2).[2] In other words, while Augustine insisted that the Christian faith is certainly knowable and therefore credible, at the same time he also stated that no dogma of faith is credible enough for us to believe it on account of its credibility alone.

By the Middle Ages, Augustine's teaching concerning the nature of religious belief was not the only alternative available to Catholic theologians, but it had

[1] "Ego vero Evangelio non crederem, nisi me catholicae Ecclesiae commoveret auctoritas". For a discussion of the implications of Augustine's distinction between 'believing' and 'believing in' in the development of the Western Christian notion of belief see Shagan (2018: 48-55).

[2] "[N]am neque inventum dici potest, quod incognitum creditur; neque quisquam inveniendo Deo fit idoneus, nisi ante crediderit quod est postea cogniturus. Quapropter Domini praeceptis obtemperantes quaeramus instanter". The bibliography on the nature, development, and implications of this aspect of Augustine's theology is veritably immense. Among the classic works, see Holte (1962); van Fleteren (1973). For a recent and synthetic overview on Augustine's thought concerning the relationship between faith and knowledge see Kenney (2015).

become the authoritative one. There were at least two reasons for this. First, Augustine's insistence on the authority of the Church as the only criterion for truth reinforced the epistemological, and not simply theological, supremacy of the ecclesiastical leaders. Secondly, Augustine successfully navigated between two extremes: the classically inspired rationalism that condemned any belief that could not be reasonably proved, and the anti-rationalist or mystical view that belief was not merely prior but necessarily antithetical to human reason.

Thanks in large part to the long reach of this aspect of Augustinian theology, credibility had become an important feature of both the theological and the juridical medieval debates. From the theological point of view, Aquinas's view on the relationship between reason and faith reaffirmed and in fact reinforced Augustine's and provided a crucially influential model of how to integrate credibility into religious belief. Aquinas claimed that the Christian faith (unlike other religions or systems of belief) was perfectly compatible with right reason, though he admitted that some aspects of the Christian doctrine, such as the mystery of the Trinity, are impossible to understand fully by means of intellectual arguments and must be believed by faith.[3] Despite his insistence on the compatibility between knowledge and faith, and more particularly on the credible nature of the true faith (at least to the extent that faith can be credible), Aquinas clearly stated that belief is primarily an act of the will rather than the intellect. Although believing requires intellectual assent, that assent derives "not by reason, but by will" (*ST*, *IIa IIae*, q2, a1).[4] To put it differently, for Aquinas our intellect is tasked with assenting to the true faith, but it is our will, inspired by faith, that directs the intellect to embrace the true doctrine.

From the point of view of the juridical debates, medieval canonists and jurists realized that even though, in principle, the goal of any juridical procedure was that of finding out the truth of the facts, nevertheless there were many instances in which arriving at a certain knowledge of the truth was impossible. Some cases involved acts that, by their nature, were not committed in front of witnesses and for which there was no factual evidence; other times the facts under dispute had happened long before the trial took place, and therefore all evidence was lost and any potential witness was long dead. In all those cases, canonists and jurists allowed the defendants to prove their cases by means of witnesses *de credulitate* rather than *de scientia*-witnesses, that is, who could attest to the credibility of the accused rather than to the truth of the facts.[5] Also,

[3] See especially Aquin. *ST*, *IIa IIae*, q8, a2, and q9 a1.

[4] Two recent and useful introductions to this aspect of Aquinas's thought are Stump (2003) and Bauerschmidt (2013).

[5] See Bassani (2012). On the role of witnesses in canon law see also Fiori (2013).

over the course of the Middle Ages jurists progressively allowed more and more room for the judges to issue their sentence based not on the certainty of truth, but on the conviction that one of the party had provided a more credible version of the events than the other.[6]

Medieval theologians, then, recognized that the credibility of Christian beliefs was an important component of faith, and that it was certainly subordinate, though not antithetical, to the divinely-revealed truth of the dogmas. Yet, they did not always agree on when human reason reached its limit and had to give way to the grace of God. Likewise, even though jurists and canonists realized that the certainty of the truth of the facts was sometimes out of reach, they did not always agree on the probatory value of testimonies *de credulitate* and on the extent to which it was morally safe and legally legitimate for a judge to use reasonable conjectures to issue his sentence. For all these reasons, the boundaries between credibility and truth were not set and fixed, but rather mutable and often contested.

In the early modern times, the need to find a balance between things that needed to be believed on faith and things that needed to be proven by reason became distinctively urgent for Catholic theologians, for several reasons. First, the Protestant Reformation made it more necessary (and more difficult) to mark the boundaries not only between orthodoxy and heresy, but also between devotion and superstition.[7] The Catholic effort to convert new souls on a global scale introduced new forms of unbelief and compelled European theologians to find new strategies to address them.[8] The revival of skepticism and historical Pyrrhonism forced Catholic theologians and intellectuals to present ever more solid evidence of the credibility of their faith.[9] Finally, new developments in natural philosophy put pressure on the traditional view of the relationship between the natural and the supernatural.[10]

Because of these factors, the credibility of Christian belief, that is, the plausibility and believability of the truth of Catholic doctrines, assumed a central role in the post-Reformation Catholic discourse. This led to novel and significant epistemological, doctrinal, and moral tensions, as Catholic leaders tried to come

[6] See Ullmann (1946); Franklin (2015: 28-33); Damaška (2019: 33-34). For the epistemological contributions of theology to the development of modern European law see also Whitman (2008).

[7] On increased importance of credibility in post-Reformation Catholic theology see Motta (2005: 197-214).

[8] On the epistemological consequences of the global missionary enterprise see Županov (1999); Fabre (2007).

[9] In addition to Popkin (2003), see Dooley (1999) and Paganini (2008).

[10] On the relationship between the natural and the supernatural in miraculous apparitions see Clark (2007); on the role of medicine in validating sanctity see Siraisi (2001) Bouley (2017).

to terms with a complex and diverse set of devotional, polemical, and theological challenges.[11]

Naturally, Catholic theologians knew that proving the credibility of the faith was not the same as proving its truth, and that the level of certainty, the argumentative strategies, and the nature of evidence and proofs pertaining to the latter were different from the ones pertaining to the former. As Catholic intellectual and institutional leaders reasserted the infallible certainty of the truth of the Church of Rome, they refined with increasing precision and sophistication their methods to evaluate the strength of philosophical arguments and the authenticity of historical documents used in support of its credibility.[12]

Despite this novel attention to credibility and plausibility, however, we should not forget that early modern people lived in a cultural, intellectual, and social environment in which human truths coexisted with supernatural truths, and therefore the presence of the divine was not only the center of their daily lives, but also the foundation of their epistemological universe. Furthermore, the supernatural is, by definition, beyond the boundaries not simply of the law of nature, but also of human cognitive abilities: the credibility of the supernatural depends not on human corroboration, but on divine revelation. Precisely because the Church needed to cultivate the true supernatural and protect it from human fraud and deceit, it relied increasingly more regularly on the historical and critical method, which could help Catholic theologians, historians, and scholars to sort out the divine wheat from the fraudulent chaff. Yet, negotiating between dual needs – to promote the truth of doctrine on the one hand and to establish its credibility on the other – was often problematic. This does not mean that the Catholic leaders always sacrificed the credible on the altar of the true. Rather, it means that the relationship between true, reasonable, and credible presented specific challenges for them. This essay examines a small episode in the history of seventeenth-century Catholicism, whose implications can help us explore some of those challenges.

3. *The Miracle(s) of Bolsena*

In the spring of 1693, a strange occurrence shook up the peaceful little town of Bolsena. This was situated in the northern part of the Lazio region in central Italy, next to the eponymous lake. The person unwittingly responsible for the commotion was Agostino Berton, a hemp and textile seller from the Susa Valley

[11] See Tutino (2022).

[12] On the link between historical authenticity, documentary criticism, confessional politics, and theology see Prosperi (1991); Grafton (1991; 2009), Quantin (2011).

(in the Piedmont region of northern Italy). Every year, Agostino spent about six months at home gathering his inventory, and six months traveling throughout the Italian peninsula to sell his merchandise. The town of Bolsena was one of his regular stops. Despite having visited the town many times, Agostino had never seen what was probably Bolsena's most famous site: the church of St. Cristina, which in the thirteenth century had been the setting of a much-celebrated miracle.

As the story goes, in the early 1260s a Bohemian priest who secretly harbored doubts over Christ's real presence in the Eucharist happened to be in Bolsena, and asked to celebrate mass in the church of St. Cristina. When the time came to consecrate the bread into the body of Christ, the Bohemian priest began to think about his doubts. As he broke up the wafer after the consecration, a few drops of blood fell from the sacred host, staining both the altar marble and the corporal. This showed not only the priest but everyone else in attendance that the body of Christ was truly present in the Eucharist. Since the Middle Ages, people had been venerating those stained objects as relics. The corporal was (and still is) preserved in the Duomo of Orvieto, while the stained marble slabs of the altar remained in the church of St. Cristina, protected by glass and covered by shutters.

During Agostino's visit to Bolsena in the spring of 1693, one of the local clergymen, surprised to learn that Agostino had never visited the church, invited him to see the miraculous marble slabs. Agostino, by his own admission, was not entirely convinced that "the true blood of our Lord Jesus Christ" had stained the marble. As he told the local ecclesiastical authorities, "I didn't believe in it too much, but I didn't believe in it too little either; I sort of believed in it so and so". Thus, when he was taken to see the marble slabs, he accepted the invitation not so much out of "devotion" as curiosity, "just to see" the source of so much excitement (ACDF, St St H 3 b, fol. 68r).[13] When the priest began opening the shutters and revealing the marble slabs one by one, Agostino maintained his moderately skeptical attitude [...] until he saw the last slab. As Agostino looked at the blood stains in that last piece of marble, a vision started to materialize in front of his eyes: "a tiny baby, beautiful, white, and naked, who was moving toward me" (fol. 67r).[14]

[13] "[I]nterrogato circa la sua credenza, se quelle goccie [sic] fossero vero sangue di Cristo Sig. nostro, rispuose [sic]: 'Io all'ora non ci credevo né troppo né poco, ma così via via, né ci havevo divozione, ma stavo così così a vedere' e soggionge che dopo aperta la cassetta e veduto il detto bambino, all'ora credette che fosse vero sangue". The "Relazione de prodigii succeduti in Bolsena" can be found in: Vatican City, ACDF, St St H 3 b, fols. 67r-78v.

[14] "[A]sserì d'haver veduto nella 4.a che dal proposto fu aperta in ultimo luogo, e sta nel pavimento avanti l'altare, un piccolo bambino, bello, bianco, e nudo, e si veniva muovendo".

Immensely moved by this vision, Agostino started to shout the names of Jesus and Mary, telling everybody about the baby. The people around Agostino gathered to look at the slab, and as Agostino showed them where the baby was, a few of them said that they, too, could see the child on the bloody marble. In the following days, more and more people gathered to see the bloody stains, and quite a few seemed to have the same vision that Agostino had had. The local clergymen were immediately on the case, and began interrogating Agostino as well as other witnesses present at the time of the presumed apparition. A few days later, mindful of the sudden and widespread excitement that Agostino's vision had provoked in and around the city, Cardinal Savo Millini, the Archbishop of Orvieto, decided to go to Bolsena and personally conduct a full-blown investigation.

4. *The Investigation*

Cardinal Millini's diligence demonstrates the scrutiny to which the seventeenth-century Curia wanted to subject all miracles, prodigies, and supernatural intervention. By their very nature, divine occurrences could not be fully verified by human means, but a thorough and scrupulous investigation could help ascertain that those occurrences were neither the work of the devil nor the results of human fraud and deceit.[15]

In addition to the discerning attitude that the seventeenth-century Curia manifested toward all miraculous events, we should remember that visions and apparitions specifically were the object of intense debate in early modern Europe. As Stuart Clark has shown, over the course of the sixteenth and seventeenth centuries, interpreting and judging the theological and epistemological significance of visions had become "vastly more complex and precarious" than ever before. Several intellectuals, philosophers, art theorists, and students of medicine and psychology had begun questioning the extent to which human vision could or did provide a faithful representation of the outside reality. Insofar as religious apparitions were concerned, Catholic theologians who wanted to validate the truth and orthodoxy of visions had to grapple with two specific sets of objections. The first came from the Protestants, who attacked the Catholic insistence on miraculous apparitions and divine visions as the result of the clergy's frauds and/or the devil's work; the second set came from the growing cohort of skeptics who believed that visions and apparitions had no supernatural origin but were rather the effects of bodily or mental illnesses, or the prod-

[15] On the attitude of the seventeenth-century Curia toward these supernatural occurrences see Tutino (2020).

ucts of human imagination.[16] For all of these reasons, then, Agostino's vision was immediately and accurately scrutinized by the local ecclesiastical leaders.

Much to the disappointment of the local devotees in Bolsena, who were excited by the prodigy of the already miraculous slabs, the initial investigation uncovered some upsetting details. First of all, the testimony of Agostino, the first and most important witness to the miracle, quickly started to lose some of its credibility. Given the spiritual magnitude, as it were, of Agostino's alleged vision, the local ecclesiastical authority interrogated him several times over the course of a few weeks, but Agostino kept changing his story, exposing "a few contradictions". At the beginning Agostino "assertively affirmed" that he had seen a baby; indeed, he had told quite a few people that what he saw was "certainly and without a doubt a baby". Yet when asked about his vision in the following days, he backtracked his earlier statement, stating not that he saw a baby but rather "thought he could see something whose shape resembled that of a baby". One time Agostino told the ecclesiastical judge that the baby in question "was lying on top of the drop of blood, was about as long as half of my index finger", and seemed to have "all the limbs that a baby must have, that is, a little head, the arms, and the legs". The next time he was interrogated, Agostino retracted again. He declared, in the presence of the archbishop, "I do not remember the position the baby was in", attributing the faultiness of his memory to the fact that as soon as he saw the baby, "my insides got turned upside down, and the fear and awe that I felt made me too distracted to look carefully". During his last interrogation, Agostino seemed even less certain: "I cannot verify and say for certain that it was a baby, but I think I saw it". In fact, Agostino's best piece of evidence for the truth of his vision was not his clear memory and recollection, but rather "all the commotion and fear of God that I felt inside" as a consequence of the vision. Agostino believed this clearly indicated that what he saw "must have been a baby", for otherwise he wouldn't have reacted with such powerful emotion (ACDF, St St H 3 b, fols. 67r-68r).[17]

[16] On the epistemological difficulties in interpreting religious visions see Clark (2007: 161-235, quot. at 205).

[17] "Questo fatto però non ha altra prova se non la deposizione del detto Agostino, quale anche patisce qualche contradizzione, poiché nella prima che fece alle grotte dice assertivamente: 'Viddi in questa goccia di sangue un piccolo bambino, bello, bianco, e nudo, e si veniva muovendo, et ad altra voce dissi agli astanti che vedevo detto bambino e lo vedevo indubitatamente e col deto indice glielo dimostravo'. Ma nell'altra datta in Orvieto alli 19 dice: 'Mi pareva di vedere un bambino più presto che altra cosa'. […] Dice ancora che 'giaceva steso sopra la goccia di detto sangue a corpo di sopra et era appunto longo circa mezzo deto, et osservai benissimo che detto bambino haveva tutte le parti che deve havere un bambino, cioè la testina, le braccia, le gambe'. Nell'altro esame poi fatto in Orvieto alla presenza del S. Card. Mellini Vescovo il giorno seguente dice: 'Non mi ricordo in qual positura stasse, cioè se steso da una parte o dall'altra, poiché in riguardo d'essermisi subbito rivoltato tutto il

In addition to Agostino's contradictory statements, another piece of bad news came from the history of the site. Digging among the historical accounts of the miraculous slabs, the local ecclesiastical authorities had found that no source ever mentioned a baby. Some sources reported that some people had seen one of the blood stains assume the shape of the *Hecce homo*, but the image of Christ crucified was not exactly the same as the image of a tiny white baby.[18]

Despite all this, however, local clergymen were not yet ready to discount Agostino's vision. First, they reasoned that the inconsistencies in Agostino's depositions could be attributed to "the commotion he felt" as he had his vision, not to mention the "fear that in one of his examinations the Cardinal [Millini] instilled in him, threatening him with all sorts of terrible corporeal punishments in case of perjury". With a slightly polemical hint, the local authorities noted that the undue pressure from the Bishop might have convinced Agostino to qualify his earlier certainty and specify that he only "seemed" to have seen the baby (ACDF, St St H 3 b, fols. 68v-69r).[19] In addition, a few other people who were present when Agostino saw the baby confirmed that they too saw a baby in the blood. What is more, the local authorities mentioned that when Cardinal Millini celebrated mass in that same church a few days after the vision, he personally saw that in another marble slab "it was possible to clearly see the portrait of our Lord Jesus Christ inside the drop of blood". The archbishop's opinion that one of the blood stains had taken the shape of Jesus's effigy was confirmed by a few witnesses, including Ludovico de Megliorati, who was "the medical doctor" serving the region (fol. 69v).[20] Of course, the cardinal and the doctor saw something very different than Agostino did: the effigy of

sangue, e per il timore e tremore che havevo non ci abbadai più che tanto'. E più a basso ad un altro interrogatorio risponde: 'Non posso verificare e dire se quello certamente fosse un bambino, ma mi parve di vederlo e dall'essermi tribolato et essendomi venuto anche il sudore con sentirmi dentro me stesso con più timor d'Iddio per questo credo che quello fosse un bambino, come ho detto'".

[18] See ACDF, St St H 3 b, fols. 72r-73r.

[19] "Ancora si ponderi, se le suddette contradizioni tra la prima deposizione di Agostino e l'altra che fece alla presenza del S. Card. vescovo possino toglierli la fede, mentre possono forse attribuirsi allo stordimento che provò in quell'atto, et al terrore che nell'altro esame gli pose il S. Cardinale minacciandogli oltre lo spergiuro anche le gravissime pene corporali se havesse deposto il falso, si come S. Em.a dice, che ciò fece per assicuarsi bene della verità in materia così grave. Onde può essere che Agostino intimorito modificasse l'aparizione [sic] fatta nel primo esame con dire 'mi pareva'".

[20] "L'altro prodigio veramente notabile e concludentissimamente provato, qual parimente può conferire a comprovare la detta apparizione del bamibino consiste in che havendo voluto il S. Card. col suo zelo verificare il suddetto fatto, et essendosi perciò trasferito a Bolsena come si è detto, dopo haver celebrato la messa nella grotta la detta mattina de 21 ove stanno le dette sante reliquie coll'intervendo di Mon. Governatore che si rogò dell'atto, come protonotario apostolico, e di altre persone qualificate fece aprire le 4 cassette e [...] fu osservato da Lodovico de Megliorati medico della terra che nella sagra pietra esistente nella prima cassetta si vedeva in mezzo della goccia del sangue l'effigie di nostro S. Giesù Cristo".

Christ is not the same as the image of a baby, and besides, the two visions did not even appear on the same marble slab. But the local authorities reasoned that the second vision, confirmed by a few trustworthy people including a cardinal and a medical doctor, was evidence that something miraculous was indeed going on in Bolsena; in turn, this would at least partially corroborate Agostino's vision.

Most importantly, those recent supernatural activities did not appear out of the blue, as it were. Since they happened at the site of a much older and exceedingly well-established miracle, they served not as an inspiration to create some kind of new devotion, but rather as a way to reinforce an existing one. And because the protagonist of all those supernatural events, both in the thirteenth and in the seventeenth centuries, was none other than the Eucharist, the local clergymen concluded that those recent prodigies were to be celebrated because they would "much contribute to further instill in the people's heart the veneration for the most holy Sacrament" (ACDF, St St H 3 b, fol. 77v).[21]

5. *The Credibility of Miracles and the Truth of Doctrine*

The report prepared by the local ecclesiastical leaders in Bolsena provides a fascinating view into the difficulties of harmonizing the concerns for credibility with the need to promote the truth. On the one hand, local clergymen were perfectly in step with the seventeenth-century Curia's renewed attention to credibility and authenticity in matters of miracles. They did not hesitate to launch an investigation into Agostino's vision, and were not shy to admit the factors that discredited the authenticity of the prodigy and undermined the credibility of its main witness. On the other hand, the local clergymen also knew that at some point, the push to investigate a dubious vision must leave room for the necessity of promoting an orthodox and meritorious manifestation of faith.

In other words, the clergymen in Bolsena realized that something about Agostino's vision of the baby did not add up, but they also realized that his dubious vision did not sanctify a new site or promote a new cult. Rather, it served as a way to renew the memory of an ancient, well-established, and fully verified miracle, which would rekindle the people's devotion to the Sacrament of the Eucharist. Thus, while they acknowledged that Agostino's story lacked credibility, at the same time they did not endorse credulity. Since it was possible

[21] "Pare donque [sic] che l'uno e l'altro di questi prodigii si possino dire provati ma particolarmente il 2 e che debbano molto conferire per accendere maggiormente i cuori alla venerazione del SS sagramento".

to fold Agostino's story into a series of other 'smaller' prodigies, which were in turn anchored to a 'big' and officially verified miracle, they thought this was a perfect example of when reason should make room for faith.

The local clergymen thought that this strategy of downplaying not only the contradictions of Agostino's vision, but also its value as a specific and individual miracle, allowed them to bring this story to a satisfactory and definitive end. Since people venerated the relics of St. Cristina because of a thirteenth-century miracle that had been fully certified and approved, there was no need to further investigate the credibility of Agostino's vision; that vision was not a specific and individual miracle but rather a simple confirmation of the pre-existing one, and as such a reminder of the holy power of the Eucharist.

Yet one loose end remained. As Agostino had repeatedly told his interrogators, before his vision he had had some doubts about the miraculous marble slabs; Cardinal Millini believed it was necessary to get to the bottom of those doubts and make sure that Agostino was not harboring potentially heretical thoughts. So as soon as the investigation ended, Cardinal Millini returned to Rome bringing not only a copy of the official report on the case but also Agostino Berton himself. Millini sent all the paperwork over to the Roman Inquisitors and told them that Agostino was willing to come to them voluntarily; in this way they could examine him and absolve him for any sin he might have committed, "so that in due course he can go back to his town" (ACDF, St St H 3 b, fol. 64r).[22]

On May 1, 1693, Agostino appeared in the tribunal of the Holy Office and gave his deposition. He told the Roman Inquisitors the story of his visit to the church of St. Cristina, and that "I saw, or I believed that I saw, a baby in the middle of a blood stain" in one of the miraculous marble slabs (ACDF, St St H 3 b, fol. 80r).[23] He also confessed that during the visit to the church, "I had some doubts, and maybe I didn't believe that those blood stains were the true blood

[22] "Avendomi oggi NS comandato ch'io facci pervenire in mano di VS Ill.ma il processo di quanto è ultimamente occorso nella terra di Bolsena della mia diocesi d'Orvieto […] gliene accludo il transunto in forma pubblica, accioché possa esaminarsi dalla Sacra Congrega.ne. E perché Agostino Berton si trova qui, venuto meco, e ha necessità di sbrigarsi sollecitamente per andarsene al suo paese ove si era incamminato, prego perciò VS Ill. ma dopo che avrà veduto detto processo ad avvisarmi quando dovrò mandarlo da lei, accioché ella e il P. Commissario possano sentirlo". Millini's letter to the *assessor* of the Holy Office, 28 April 1693, can be found in: Vatican City, ACDF, St St H 3 b, fol. 64r.

[23] "D'ordine del Sig. Card. Mellini son comparso a questo SO perché essendo io stato esaminato pochi giorni sono tanto alle grotte quanto a Bolsena come anche in Orvieto sopra l'haver io veduto un bambino cioè di parermi d'haver veduto un bambino in mezzo d'una goccia di sangue che si conserva accanto la chiesa di S. Christina di Bolsena nel luogo ove dicono il luogo del santissimo miracolo". Agostino's deposition to the Roman Inquisitors can be found in in: Vatican City, ACDF, St St H 3 b, fols. 80r-82v.

of Jesus Christ". Agostino specified that he was never certain that the blood was *not* Jesus's; he simply didn't fully believe that it was, and "this kind of incredulity and doubt lasted just until I saw that blood drops in the last slab", along with the miraculous baby. As soon as he had the vision, Agostino experienced a powerful internal and spiritual commotion that "made my blood curl and filled me with devotion". Right there and then "my doubts and incredulity abruptly ended, and I firmly believed not only that those blood stains truly were the ones that fell from the wafer consecrated by that incredulous priests, but also that they truly were the blood of Jesus Christ". Agostino was sure that his vision could not be the result of any heretical thought or devilish trick; after all, it was that vision that put an end to his doubts and made him into a firm believer. Yet he also knew that harboring doubts about the miracle might have been an error, and he had "come to this Tribunal to ask for forgiveness" for it (fol. 81r-v).[24]

After Agostino finished his account, the Inquisitors asked him to elaborate on the exact nature of his doubts. Did he ever question that the consecrated host does in fact contain the real body of Christ? Agostino immediately reassured the Inquisitors that as far as the doctrine of the real presence went, he had never believed anything other than the true and orthodox doctrine of the Church.[25] The Inquisitors then asked again: could Agostino "explain in detail the doubt and incredulity" he harbored concerning those blood stains in the marble? Agostino repeated that he was "doubtful and rather incredulous of the fact that those blood stains were the true blood of Christ". Agostino explained that "I have never seen those blood drops actually dripping from the host", which is what had happened to the doubtful Bohemian priest in the thirteenth century. Had Agostino personally witnessed the miracle, he said, "I would cer-

[24] "[I]nvitato [underl. in ms.] dal Sig. prevosto di Bolsena di cui non so il nome a vedere dette goccie di sangue vi andai a vederle e rimirando quelle che erano sopra le pietre incastrate nel muro stavo dubioso, e parevami di non credere che quel sangue fosse sangue vero di Giesù Christo parendomi d'essere incredulo circa ciò, e questa incredulità e dubio mi durò sin tanto che io viddi quella goccia di sangue che era posta sopra la pietra situata alla parte destra di detto altare, qual goccia mi parve più bella e più fresca dell'altre et all'hora mi si cominciò a commovere il cuore et il mio sangue internamente e poi totalmente mi si commosse quando al lume d'una torcia accesa io viddi e mi parve di vedere in detta goccia di sangue un bambino di carne in mezzo alla detta goccia et all'hora mi cessò totalmente il dubio e l'incredulità e fermamente credei che quelle goccie di sangue realmente fossero di quelle che caderono dalla sudetta ostia spezzata dal sudetto sacerdote incredulo e fermamente credì [sic] che quelle fossero goccie di sangue di Giesù Christo per la gran commotione che io sentii in me stesso che mi cagionò sudori e gran devotione e se havessi errato in tal mio dubio et incredulità sopradetta io son venuto qua a domandarne perdono a questo S. tribunale".

[25] "Inter. an credat et semper crediderit quod in ostia rite consecrata ab omni sacerdote sit verum corpus et verus sanguis DN Jesu Christi. Res. Io credo et ho sempre creduto che nell'ostie e nelle particole consecrate da sacerdoti nel modo che comanda S.Chiesa e Christo sig. nostro vi sia il vero corpo e sangue di Giesù Christo e che quelli che si communicano ricevono il corpo e sangue di Nost. Sig". (ACDF, St St H 3 b, fol. 81v).

tainly have believed without any doubt whatsoever that the blood coming from the host was Jesus Christ's". Evidently, Agostino thought that in order to believe in a miracle, he needed some kind of proof. Seeing "that baby in that blood stain" provided the confirmation that Agostino needed, which is why after that vision "I had that extraordinary spiritual commotion and immediately believed, as I still today believe, that those blood stains were the blood of Jesus Christ" (ACDF, St St H 3 b, fols. 81v-82r).[26]

From his responses to the Inquisitors, we can glean that Agostino had some kind of personal theory on how credibility and faith should be balanced. The dogmas of the Catholic religion, he thought, should be embraced by faith, and no proof was required of their truth other than the fact that the Church taught them as such. This is why Agostino never doubted the doctrine of real presence. For miracles and prodigies, on the other hand, Agostino thought that the standard was different: they had to be credible in order to be believed, and seeing them with one's own eyes provided sufficient evidence that they had truly happened.

The Roman Inquisitors could not find any fault with Agostino's way of thinking about truth and credibility. The seventeenth-century Roman Curia, after all, did not seek or want to promote credulity, because credulous people were pray to all sorts of superstitions, unorthodox beliefs, and unregulated forms of devotion. While Agostino's attempt to differentiate between what needed to be believed on faith and what required some kind of credible evidence might not exactly mirror the terms of the theological debate over the boundaries between truth and credibility, evidently the Roman censors didn't find it erroneous either. After listening to Agostino's explanation concerning the nature of his earlier doubt and the reason for his newfound certainty, the Inquisitors dismissed him with no penalty and no requirements other than the standard obligation to keep the interrogation in the strictest confidence.[27]

A couple of days later, Agostino's vision was further examined by the *consultores* of the Holy Office to verify that nothing inappropriate had occurred. On

[26] "Int. ut distincte explicet in quo consistebat eius dubium, seu incredulitas, in ordine ad dictas guttas sanguinis positas supra dictas petras marmoreas. Res. Io ero dubioso et alquanto incredulo che quelle goccie di sangue poste sopra dette pietre di marmo e mostratemi dal detto Sig. prevosto fosse vero sangue di Giesù Christo perché io non havevo vedute dette goccie né detto sangue grondare dall'ostia consecrata e se io havessi veduto grondar sangue dalla sudetta o da altr'ostia consecrata haverei certo creduto e crederei che il sangue che grondasse fosse sangue di Giesù Christo e non vi haverei dubio alcuno, e dico che doppo che io viddi quel bambino in detta goccia e che mi sentii internamente quella grandissima commotione subito credì [sic] e credo anche adesso che dette goccie di sangue siano sangue di Giesù Christo".

[27] "Quibus habitis et acceptatis, dimissus fuit cum impositione silentii sub iuramento quod praestitit tactis sacris etc, et ex quo dic. se nescire scribere, facit signum crucis". (ACDF, St St H 3 b, fol. 82r).

May 4, the *consultores* found no doctrinal fault, and therefore believed that the Holy Office should no longer be concerned with this case. Two days later, the Inquisitors approved the resolution of the *consultores* and left the Archbishop, Cardinal Millini, in charge of the next steps.[28]

We have no record of any official decision taken by Millini or any other prelate concerning Agostino and his vision. As far as the Roman leaders were concerned, Agostino Berton disappeared into oblivion: nobody else within the Curia was ever again confronted with him or his vision. This is a good indication not only that the Roman authorities had no interest in further investigating Agostino, but also that neither Millini nor any other local ecclesiastical leader had any interest in promoting the supernatural aspects of the story of Agostino's vision. The church of St. Cristina did not need another recent and relatively dubious miracle, because it could already count on the well-established and fully accepted medieval one. To put it differently, Millini and his colleagues both in Bolsena and in Rome agreed that the only purpose of the baby's apparition in the blood stain might well have been to get rid of Agostino's incredulity and make him believe that the medieval miracle was both credible and true.

This is exactly the way in which Agostino's story would be framed forty years later, in one of the few (if not the only) instance in which Agostino's name resurfaced. In 1731, the apostolic protonotary of Orvieto Andrea Pennazzi published a lengthy history of the medieval miracle of Bolsena, accompanied by a rich account of the relics connected with it and the reliquary in which they were kept in the Duomo of Orvieto.[29] The aim of this work was that of promoting both the devotion to the Eucharist, and the centrality of the diocese of Orvieto in that devotion, reinforcing the tradition – later refuted by Ludovico Antonio Muratori and many other scholars – according to which the miracle of Bolsena was instrumental in convincing Pope Urban IV to establish the feast of the *Corpus Domini*.

In a section devoted to narrate all the supernatural events and prodigies associated with the site and relics of the original miracle, Pennazzi made a brief mention of Agostino Berton's vision. Pennazzi was not interested in defending the truth of the apparition, and in fact he openly admitted that several people, including high-ranking clergymen, were skeptical because they believed that "if the vision of the baby Jesus had been really true, God would have allowed other people to see this miracle" and not solely Agostino. Thus, they judged it

[28] "Fer. 2 die 4 Maii 1693; DD Consultores fuerunt in voto in causa apparitionis del bambino e testa di Salvatore in guttis sacris existentibus in ecclesia S. Christianae Vultinii nihil extare spectans ad SO, ideoque causam remittendam esse E.mo Millini episcopo Urb. iuxta formam concilii. Feria 4 die 6 Maii 1693, E. mi approbaverunt dictum votum DD Consultorum". (ACDF, St St H 3 b, fol. 63r).

[29] See Pennazzi (1731). On the reliquaries and especially the Corporal see Freni (2000).

more likely that the baby Jesus was the fruit of "Agostino's imagination and not a true apparition" (1731: 90).[30]

This widespread skepticism, however, was not a problem for Pennazzi, because the apparition of the baby Jesus was not the miracle he wanted to tell. Rather, the miracle was the conversion of Agostino himself, from doubt and incredulity to complete faith. In this respect, Pennazzi thought that Agostino's vision was a perfect reenactment of the original (and true) medieval miracle: just as the medieval miracle occurred in order to "remove any shadow of infidelity from the priest who celebrated Mass in Bolsena', so in his infinite mercy God almost wanted to renew the miracle in order to remove also Agostino's incredulity" (1731: 88).[31]

6. *Conclusion*

Agostino Berton was involved in a miracle that the ecclesiastical authorities, after conducting a thorough investigation, did not judge credible enough to be believed. Despite all the inconsistences in Agostino's account, however, no one seemed to suggest that Agostino had made up the story. Indeed, the only thing that Agostino gained from his vision was a newly strengthened faith, and therefore the Inquisitors who interrogated never doubted that Agostino had behaved with good intentions and were overall pleased with the outcome of his visions.

I am not trying to prove that the ecclesiastical authorities were right (or wrong) in their assessment of this case; I am neither able to, nor interested in, establishing Agostino's 'real' motivations. The point I seek to make is that from the perspective of the seventeenth-century ecclesiastical authority, good faith did not necessarily produce 'right' faith (just as, by the same token, bad faith did not necessarily result in doctrinal punishment). In other words, even though the censors knew that faith cannot be reduced to a matter of reasonable evidence and demonstrable proofs, it must include a measure of credibility. Conversely, the ecclesiastical leaders of course believed that making up miracles is not acceptable, and yet they also realized that credibility must sometimes take a step back to protect faith.

[30] "[A]lcuni erano di parere e fermamente credevano…che se la veduta del Bambino fosse veramente vera, Iddio con questo accesso averebbe anche ad altri scoperto il Miracolo per la sua gloria. […] e tanto più che vi era chi credeva […] il Bambino apparso essere imaginazione di Agostino, e non apparizione reale".

[31] "[S]iccome Iddio per toglier l'ombre dell'infedeltà del Sacerdote che celebrò in Bolsena stillò Sangue dall'Ostia sacratissima…così la sua misericordia infinita volle quasi rinovare il Miracolo ravvivando quelle Goccie sacratissime del suo Sangue su quelle Pietre sparso, e facendovisi anche vedere, per togliere altresì l'incredulità d'Agostino".

This ambivalence is a manifestation of the complexity of the relationship between certainty and probability, revealed truth and credible knowledge, faith and reason. While the advent of modern secular reason has undoubtedly changed the intellectual, cultural, social, and political context in which these debates take place, I don't think it has eliminated the complexity entirely. In fact, even our modern secular society is steeped in moral and epistemological uncertainty, and the process of distinguishing between facts and opinions, evidence and arguments, proofs and conjectures is not easier today than it was five hundred years ago – in many ways, it might have become even more difficult. Perhaps learning how our predecessors tried to come to terms with their doubts in this regard might help us to understand better the roots of our own.

Stefania Tutino
UCLA
tutino@history.ucla.edu

References

1. Manuscript sources

Vatican City, ACDF, St St H 3 b.

2. Primary sources

Aquinas, Thomas, 1948, *Summa theologiae*, ed. by Pietro Caramello, 5 vols, Marietti, Rome and Turin.

Augustine, 1841a, *De libero arbitrio*, *PL* Migne, vol. 32, Migne, Paris.

–, 1841b, *Contra Epistolam Manichaei*, *PL* Migne, vol. 42, Migne, Paris.

Pennazzi, Splendiano Andrea, 1731, *Istoria dell'ostia sacratissima*, Montefiascone.

3. Studies

Bassani, Alessandra, 2012, *Sapere e credere. Parte Prima: La "veritas" del testimone "de auditu alieno" dall'alto medioevo al diritto comune*, Giuffrè, Milan.

Bauerschmidt, Frederick C., 2013, *Thomas Aquinas. Faith, Reason, and Following Christ*, Oxford University Press, Oxford.

Bouley, Bradford A., 2017, *Pious Postmortems. Anatomy, Sanctity, and the Catholic Church in Early Modern Europe*, The University of Pennsylvania Press, Philadelphia.

Clark, Stuart, 2007, *Vanities of the Eye. Vision in Early Modern European Culture*, Oxford University Press, Oxford.

Damaška, Mirjan, 2019, *Evaluation of Evidence. Pre-Modern and Modern Approaches*, Cambridge University Press, Cambridge.

Dooley, Brendan, 1999, *The Social History of Skepticism: Experience and doubt in early modern culture*, The Johns Hopkins University Press, Baltimore.

Fabre, Pierre-Antoine and Bernard Vincent, 2007, eds., *Missions religieuses modernes. "Notre lieu est le monde"*, École Française de Rome, Rome.

Fiori, Antonia, 2013, *Il giuramento di innocenza nel processo canonico medievale. Storia e disciplina della "purgatio canonica"*, Frankfurt am Main, Klostermann.

Franklin, James, 2015, *The Science of Conjecture. Evidence and Probability Before Pascal*, The Johns Hopkins University Press, Baltimore.

Freni, Giovanni, 2000, "The reliquary of the Holy Corporal in the cathedral of Orvieto: patronage and politics", in Joanna Canon and Beth Williamson, eds., *Arts, Politics, and Civic Religion in Central Italy 1261-1352*, Routledge, New York, 117-177.

Grafton, Anthony, 1991, *Defenders of the Text: The Traditions of Scholarship in an Age of Science, 1450-1800*, Harvard University Press, Cambridge, MA.

—, 2009, *Worlds Made by Words: Scholarship and Community in the Modern West*, Harvard University Press, Cambridge MA.

Holte, Ragnar, 1962, *Beatitude et Sagesse*, Études Augustiniennes, Paris.

Kenney, John Peter, 2015, "Faith and Reason", in Meconi, David V. and Eleonore Stump, eds., *The Cambridge Companion to Augustine*, Cambridge University Press, Cambridge, 275-291.

Motta, Franco, 2005, *Bellarmino: Una teologia politica della Controriforma*, Morcelliana, Brescia.

Paganini, Gianni, 2008, *Skepsis: Le débat des modernes sur le scepticisme*, Vrin, Paris.

Popkin, Richard, 2003 (revised ed.), *The History of Scepticism from Savonarola to Bayle*, Oxford University Press, Oxford.

Prosperi, Adriano, 1991, "L'elemento storico nelle polemiche sulla santità", in Gabriella Zarri, ed., *Finzione e Santità tra Medioevo ed Età Moderna*, Rosenberg & Sellier, Turin, 88-119.

Quantin, Jean-Louis, 2011, "Reason and Reasonableness in French Ecclesiastical Scholarship", in *Huntington Library Quarterly*, 74: 401-436.

Shagan, Ethan, 2018, *The Birth of Modern Belief. Faith and Judgment from the Middle Ages to the Enlightenment*, Princeton University Press, Princeton.

Siraisi, Nancy G., 2001, "Signs and evidence: autopsy and sanctity in sixteenth-century Italy", in Id., *Medicine and the Italian Universities, 1250-1600*, Brill, Leiden.

Stump, Eleonore, 2003, *Aquinas*, Routledge, London.

Tutino, Stefania, 2020, "Historical Authenticity and the Expanding Horizons of the Seventeenth-Century Catholic Church", in *The Journal of Modern History*, 91: 1-39.

—, 2022, *The Many Faces of "Credulitas": Credibility, Credulity, and Belief in Post-Reformation Catholicism*, Oxford University Press, Oxford.

Ullmann, Walter, 1946, "Medieval Principles of Evidence", in *The Law Qarterly Review*, 77: 77-87.

Van Fleteren, Frederick E., 1973, "Authority and reason, faith and understanding in the thought of St. Augustine', in *Augustinian Studies*, 4: 33-71.

Whitman, James Q., 2008, *The Origins of Reasonable Doubt. Theological Roots of the Criminal Trial*, Yale University Press, New Haven.

Županov, Ines G., 1999, *Disputed Mission: Jesuit Experiments and Brahmanical Knowledge in Seventheenth-Century India*, Oxford University Press, Oxford.

Probable Interplay: Reactions to Epicureanism and Probabilism in the Seventeenth Century

Rudolf Schuessler

Abstract: Scholastic probabilism regulated the use of opinions in much of seventeenth-century Catholic moral theology. It should therefore not come as a surprise that it also affected the acceptance of philosophical doctrines like epicureanism in Catholic countries. The ups and downs in the careers of probabilism and epicureanism in Italy are in conspicuous synch as this paper will show, with special emphasis on the Jesuit Cardinal Francesco 'Pietro' Sforza Pallavicino. Pallavicino (1607–1667) was one of the leading probabilists of his time and sympathetically discussed epicurean positions in *Del bene* (1644). Probabilism's license to favor the convenience and utility of agents in doubt about moral restrictions facilitated the adoption of epicurean attitudes, while opponents criticized probabilism for promoting the 'prudence of the flesh', a topos of longstanding anti-epicurean pedigree. The rising storm of opposition against probabilism in the second half of the seventeenth century thus contributed to a worsening of conditions for the spread of epicurean thought, with observable effects in Italy.

Probabilism was (and is) a Catholic doctrine that guides conscience and regulates the use of opinions. Epicureanism is an ancient school of philosophy whose revival in the early modern era significantly contributed to the rise of modern science and philosophy. What might the two have in common? Answering this question requires some intellectual effort to weave probabilism and neo-Epicureanism together in a narrative. At closer inspection, some contact points, nevertheless, become discernible. The moral theology of probabilism was 'pleasure-friendly', an attitude that was sharply criticized by austere opponents.[1] Moreover, the patterns of growth and resistance to both currents of thought seem to be in sync, especially when we focus on Italy. This synchronicity is hardly fortuitous. Reactions to probabilism and Epicureanism in

[1] Today, the term 'probabilism' is often associated with any kind of probabilistic reasoning. By contrast, scholastic probabilism or moral theological probabilism was a specific doctrine for the legitimate use of probable opinions based on a very different understanding of probability as plausibility or sufficient backing by reasons. When referring to probabilism in this paper, I have this scholastic doctrine in mind. On probabilism in general, see Deman (1936); Schuessler (2019); Schwartz (2019); Tutino (2018). On criticism of pleasure-friendliness, see below Section 1.

philinq X, 2-2022, pp. 197-218
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.428

the seventeenth century seem to have been influenced by common underlying developments, which should be identified to gain a more accurate understanding, especially of the trajectory of neo-Epicureanism. Periods of flourishing and decline or of smooth expansion and strong adversity, are commonly recognized in the literature on probabilism, but are rarely addressed in the historiography of neo-Epicureanism. Negative reactions by Catholic authorities in one century are often used to claim negative Catholic attitudes toward Epicurean thought in another century.[2] Such practices contribute to the accepted view that the Catholic Church abhorred Epicurean thought. Notable intellectual historians have corrected this 'black legend' and shown that Epicurean ideas received moderate acceptance in Catholic Europe, especially in a pruned and Christianized form.[3] However, this trend in the scholarship on neo-Epicureanism still falls short of addressing cycles in Catholic attitudes toward Epicurean thought. Once a periodicity in the attitudes is recognized, it becomes clear that both negative and mixed views of the relationship between Catholicism and Epicureanism have some claim to truth – but during different periods. Accounting for the influence of probabilism helps explain this periodicity.

1. *Probabilism c. 1600-1650*

Probabilism is a doctrine of Catholic moral theology that allows agents to prima facie translate any opinion that is plausibly backed by sufficiently good reasons into action. The doctrine is difficult to understand unless the meaning of the scholastic term "probable opinion" (*opinio probabilis*) is clarified. First, opinions are assertoric sentences held true by persons but only under the qualification that the person is not certain that the sentence is true. A lack of certainty often arose from controversies between experts (e.g. expert theologians) who held different opinions and disagreed about their truth. By the late sixteenth century, opinions were considered probable if they were buttressed by strong reasons or solid intellectual authority.[4] That is, an opinion was probable if it had

[2] See, e.g. the starkly polarizing 'Hollywood' plot of the bestselling Greenblatt (2011), which hardly allows for nuances or 'swerves' in Catholic attitudes toward Epicurus or Lucretius as philosophers. For a critique, see Palmer (2020).

[3] On the recovery of Epicureanism and its early-modern trajectory, including the fate of Lucretius's *De rerum natura*, see, e.g. Hardie, Prosperi, and Zucca (2020); Gillespie and Hardie (2007); Mitsis (2020); Norbrook, Harrison, and Hardie (2016); Paganini und Tortarolo (2004); Paladini (2011); Palmer (2014); Passanante (2011); Prosperi (2004); Warren (2009); Wilson (2008). Recent scholarship has, to a considerable degree, corrected the narrative of a uniform religious opposition to Epicurean ideas, see e.g. Kraye (1990; 1999); Palmer (2014; 2020); Prosperi (2020).

[4] 'Opinion' was defined in the scholastic tradition as a proposition that a person held for true while not being firmly confident about its truth (Schuessler 2019: 33). Paradigmatic examples are the

sufficient backing by reasons or authoritative voices (usually from experts in the respective field) to be regarded as true by competent evaluators, even if other competent observers considered the opinion to be wrong. For instance, a contract might have been considered usurious by some theologians but not by others. If all experts agreed that the reasons of both sides were probable, they also agreed that their opponents could reasonably adopt opposite views, resulting in what we today call reasonable disagreement. Probabilism permitted persons to prima facie act in accordance with any opinion considered tenable by reasonable and competent persons. It was no longer necessary, as had previously been the case, to prefer theologically risk-free opinions ("safe opinions") or opinions deemed more likely to be true by the agent or a specific group of theologians, e.g. the 'larger and sounder' part (*maior et sanior pars*) of theologians. Probabilism thus significantly increased the flexibility of dealing with opinions, a fact that I will relate here to Epicurean opinions, although certain restrictions to the license to adopt any probable opinion remained in place.[5]

Probabilism became *the* predominant Catholic moral theological approach in the first half of the seventeenth century. Only very few critics came to the fore during this period, and those who did were of minor theological stature. Early modern probabilists mostly defended their approach on account of its moral and epistemological merits, but there is no space here to discuss the respective justifications in any depth. Let me just remark on why probabilism spread like wildfire in the Counter-Reformation Catholic world after 1580. Though different explanations are feasible, I will only hint at my most favored one. The risks and exigencies of religious strife, the social and economic modernization of states, and the necessity to gain and retain the allegiance of people across Europe and the world at large called for a flexible tool that allowed for negotiation rather than imposing normative guidelines on Catholic populations, princes and various networks of Catholic clerics.[6] Probabilism was precisely such a tool. It increased the space for negotiation by expanding the range of eligible opinions, but at the price of loosening theological and moral strictures, thus considerably enhancing the permissiveness of Catholic moral theology. In fact, excessive permissiveness soon became one of the major points of criticism

opinions scholars held in scholastic debates, in which the fact of an ongoing controversy signaled the epistemologically uncertain status of opponents' opinions which often possessed as much epistemic authority as the proponent of a claim. On the evolution of the scholastic understanding of the term 'probable', see Schuessler (2019), Chaps. 4 and 8.

[5] Probabilism was, for instance, often rejected in weighty matters of faith or war, see Schwartz (2019), part 2.

[6] On the need to negotiate rather than impose the Counter-Reformation on different groups and constituencies, see Forster (2001); Hall and Cooper (2013: 4).

against probabilism. This permissiveness, as I will argue, also facilitated acceptance of elements of Epicurean thought.

Under the auspices of the meta-norms of probabilism, aspiring neo-Epicureans no longer needed to defeat Aristotelianism and establish Epicureanism as the leading ancient philosophy. It sufficed to establish specific Epicurean claims as being tenable by reasonable persons, an acknowledged general superiority of Aristotelianism and a resulting greater probability of Aristotelian tenets notwithstanding. This did not, of course, dispense with the need to adapt Epicurean ideas to a Christian worldview. Moreover, besides this general opening that probabilism offered to all philosophical doctrines, it also displayed a specific affinity with elements of Epicureanism – or so its friends and foes alike assumed. Probabilism was often understood as permitting actions that best suited an agent's interests, their utility, or their convenience, at least unless the course of action taken was prohibited by doubtlessly valid laws. Regardless whether the laws were juridical or moral, if it was (at least) probable, i.e. assumable from a reasonable perspective, that a law was not valid, that law was not considered binding. In this case, an agent was ceteris paribus free to do as she liked.

The Jesuit Juan de Salas, one of the most important early probabilists, spoke in this respect of a"right to bring about what was useful for oneself" (*ius efficiendi, quod sibi utile fuerit*) (1607: 1205). Antonio Perez claims in his *Laurea Salmantina* that one might prefer a probable opinion"out of convenience" (*ratione commodi*) (1604: 562). Francisco Suárez also considered it prudent when in doubt to choose what is least inconvenient (*id esse agendum, quod iuxta materiae exigentiam, et negotii qualitatem minorem habet incommoda*) (1740: 263). 'Convenient' here most likely signifies that having the choice of a less probable opinion can facilitate collaboration in a committee or organization, precluding persons from becoming troublemakers who inflexibly insist on decisions they deem to be the most probably best.[7] However, as anti-probabilist critics point out (see the case of Baron below), probabilist convenience was considered to have a broader sweep, sometimes becoming associated with pleasure-seeking. In any case, the quotes cited so far document that probabilists used the language of interest, utility, and convenience to make their point. Motives of self-interest or convenience could legitimately prevail if countervailing moral obligations did not qualify as binding; they were only binding if the cognition of their validity exceeded a very demanding epistemic threshold (if it reached moral certainty, *certitudo moralis*). It is therefore of relevance that the language of interest, utility, or convenience was also associated with neo-Epicureanism

[7] See especially the literature on the highly-developed Spanish 'polysynodal' council system (Reinhardt 2016: 26).

in the early modern era. Probabilism and neo-Epicureanism thus seemed to share some common ground. This nexus did not elude the opponents of probabilism, once they began gaining influence in the second half of the seventeenth century. The theologian Vincent Baron emphasized that he did not want to impugn all probable opinions but only those that favored pleasure (*voluptas*) and covenience over duty and salvation.[8] The implication is that probabilists err by ascribing too much moral weight to *voluptas*. The Jesuit Superior General Tirso González, a staunch enemy of probabilism, declared that probabilism could only be motivated by"prudence of the flesh", a vice traditionally associated with Epicureanism.[9]

Against this background, it appears plausible that the uninhibited flourishing of probabilism in the first half of the seventeenth century helped create a propitious climate for the rise of neo-Epicureanism in the Catholic world. In fact, we find a Europe-wide boom of scholarly attention, combined with broadening social acceptance, for Epicureanism in the first half of the seventeenth century. In the following, we will mainly focus on Italy, France, and England in this respect. Therefore, a few words on probabilism in Italy and France appear appropriate (England being Protestant is a more complicated case with respect to probabilism, which cannot be discussed here).[10] Probabilism reached its apogee in Rome under Pope Urban VIII, with members of the Theatine Order rivaling the established Jesuits of the Collegio Romano in influence and acumen in the development and application of this doctrine. In Cardinal Richelieu's France, probabilism also flourished.[11] Notably, as we will see, the Barberini and Richelieu promoted or at least tolerated probings into Christianized Epicurean thought.

[8] "Probabilia quaecumque non displicere, sed ea tantum, quae voluptati et commodo favent, contra officium et salute" (Baron 1677: 20).

[9] "Ulterius ostenditur, nullam aliam reperiri posse in sectanda sententia minus tuta, quando oppositum apparet operanti manifeste verisimilior, nisi prudentiam carnis" (Gonzalez 1694: 56).

[10] Probabilism has so far understandably only been peripherally touched by historical accounts of Protestant moral theology and casuistry in England (see, e.g. Holmes 1981 and 2012, Sedgwick 2019), since there were no English Protestant probabilists. At best, Jeremy Taylor's opposition to probabilism can be highlighted (Sedgwick 2019: 330). However, the probabilism of English Jesuits, and most notably Anthony Terill (an alias for Bonville), may also count as English theology, not least because of its possible political implications for England. Terill was one of the most important probabilists (see Schuessler 2019, Chap. 10), who stood in close contact with prominent Catholics at the court of Charles II. Whether Terill's probabilism rendered it easier for the husband of Barbara Villiers, Countess of Castlemaine and mistress of Charles II, to acquiesce in her role as a supposed Catholic 'honey trap' for the English king is not a moot question. Terill dedicated his main work of moral theology to Roger Palmer, Earl of Castlemaine, the said husband.

[11] On probabilism under the Barberini and in early seventeenth-century France, see Burgio (1998: 17); Gay (2018); Schuessler (2019: 110).

2. *Epicureanism c. 1600-1650*

It is widely recognized that neo-Epicureanism 'took off' as a major current of early modern thought in the 1640s (Butterfield 2016; Kargon 1964; Kors 2016; Kraye 1999; Paganini 2020). Pierre Gassendi published his *De vita et moribus Epicuri* in 1647, followed by his *Syntagma* and *Animadversiones* on Epicurus's philosophy in 1649. Gassendi's Epicurean books mark a major and successful attempt to promote Epicurus's philosophy in a suitably Christianized version as a basis for the modernization of Christian philosophy. His postulations subsequently became a reference point for the growing interest in Epicurean thought. Together with Cartesianism, Gassendism became one of the leading alternatives to a scholastic-Aristotelian worldview (Lennon 1993; LoLordo 2006). Further works on Epicurus and his main Roman spokesman Lucretius soon began to appear in France. Michel de Marolles published a translation of Lucretius's *De rerum natura* in 1650. Saint-Evremonde wrote an essay on Epicurus's ethics in 1684, although a manuscript was already available and had been pirated in print in 1668. François Bernier published his *Abrégé de la philosophie de Gassendi* in 1684.

In England, Lucy Hutchinson very likely began her translation of Lucretius in the 1650s. It was circulated in manuscript by 1675.[12] Francis Bacon's Lucretius-inspired *Cogitationes de natura rerum* appeared in 1653, although they had been written in 1604. Walter Charleton's Epicurean physiology was printed in 1654, and John Evelyn published an essay on the first book of Lucretius in 1656. Hobbes's mechanistic philosophy and ethics, which is ostensibly influenced by Epicurean thought, was circulated as early as 1640. Moreover, Hobbes, like many other English Epicurean sympathizers, travelled to France and found likeminded personages there. Hobbes befriended Gassendi when they met in 1640.[13] During the English Civil War, Hobbes and many of the English Epicureans went into exile in France, often with long intermittent stays in Italy, mingling with neo-Epicureans on the continent (Raylor 2010).

Finally, Epicurean thought not only proved attractive to scholars but became fashionable in English court circles and among the aristocracy at large (Gillespie 2007). A pictural program in a house of William Cavendish, Duke of Newcastle and Hobbes's patron, shows pleasure reconciled with virtue.[14] Edward Hyde, Earl of Clarendon, not particularly fond of the Cavendishs, and one

[12] On Hutchinson, see: Norbrook (2015); on Charleton see Kargon (1964); Walters (2020); on Evelyn, see Darley (2006).

[13] On Hobbes and Gassendi, see, e.g., LoLordo (2006: 10); Paganini (2020).

[14] On the pictural program, see Raylor (1999). On the Epicurean tendencies in the Cavendish circles, see Barbour (1998: 38); Sarasohn (2011); Walters (2020).

of the most important political movers under the Stuart Restoration, begins the first of his essays with reflections on Epicurus. There are further allusions to Epicurean thought in his essays on happiness and friendship. In one of Clarendon's houses, an inscription bore the quintessential Epicurean motto"Whoever hides well, lives well" (*Bene vixit, qui bene latuit*) (Craig 1911: 303).

The attitudes such examples document antedate the neo-Epicurean writings of Gassendi and can be traced to the court culture under the first Stuart king James I (Barbour 1998, Norbrook 2016). Thus, the assumption of Gassendi's Epicurean writings becoming a watershed for interest in Epicureanism appears misleading because much interest already existed before them. English travel on the continent, which had been instigated by the rise of the Grand Tour in the late sixteenth century, surged again in the 1630s after James II had mended relations with the Catholic great powers.[15] It is therefore of relevance that Gassendi, whose thought was approachable through the intellectual networks of Peiresc and Mersenne, had already set out to work on Epicurus in 1626 (LoLordo 2006: 11). Other noted *libertins* documented related preferences. François La Mothe le Vayer published an Epicurus-friendly chapter in his *De la vertu des payens* in 1641, well before Gassendi's books on Epicurus appeared. Hence, Gassendi was not alone in fostering a revival of Epicurean thought in France, although others, such as La Mothe le Vayer, may have done so as part of an (even) more eclectic endeavor. In a book from 1626, Jean de Silhon (1596-1667), a founding member of the *Academie Française* and a political writer in the service of Richelieu, remarks that the school of Epicurus, who regarded the soul as mortal, has undergone a revival (1626: 410).

It is often believed that Gassendi ran a considerable personal risk of persecution by promoting Epicurus in Catholic France. However, the more recent research literature tempers this view more than just a bit. Gassendi was well-integrated in the clientele system of the powerful first minister of France, Cardinal Richelieu. Alphonse de Richelieu, the cardinal's brother, supported Gassendi from the 1620s onward.[16] Together with other *libertins* like La Mothe le Vayer, Gassendi belonged to the intellectual coterie of Peiresc and Mersenne which flourished under Richelieu's protection (and supplied him with political information).[17] Several *libertins* wrote political pamphlets and treatises for

[15] See Raylor (2010: 23) and Dixon Hunt (1986: 8), who note the effect of increased travel on English garden culture.

[16] See LoLordo (2006: 14) on Alphonse de Richelieu.

[17] Peiresc's vast network of correspondents in Italy apparently not least served the purpose of keeping the powerful first minister of France informed about trends of opinion abroad. Miller (2000: 80) seems surprised that Peiresc avidly collected documents on the Valtellina, an activity that becomes intelligible against the background of Richelieu's Valtellina War of 1620-1626. Ford (2007)

Richelieu, which indicates that they should hardly be regarded as subversive dissidents in a modern sense. This is not to say that Catholic hardliners, who loathed the relative intellectual openness of the *libertins* and the milieu surrounding Richelieu, might not have longed to persecute authors who toyed with Epicurean or skeptical ideas, but Richelieu knew how to protect his flock, and much of the intellectual openness he tolerated continued under his chosen successor Mazarin.[18]

Protection by powerful patrons or networks goes a long way in explaining relative intellectual openness in early modern Europe, whether Catholic or Protestant. It is important in this respect that around the same time as Gassendi prospered under Richelieu, Urban VIII allowed Christianized Epicureanism to flourish in Rome. The Roman intellectuals who came to be linked to the Barberini papacy in the 1620s were quite open to Hellenistic trends of thought (see Section 2.1). Moreover, this scene was closely connected to the larger European one. The pro-French leanings of Urban VIII are well-known, and the collaboration between the Barberini and Richelieu had an important intellectual element.[19] Key players from the intellectual circle around Richelieu mingled with clients of the Barberini and sometimes resided in Rome for prolonged sojourns. Gabriel Naudé offers a case in point.[20] Moreover, an increasing number of English aristocrats and intellectuals flocked to Italy in the 1630s. More than a few of them (mostly future royalists in the English civil war) had Epicurean inclinations. Hobbes is now the most famous among these travelers, but Kenelm Digby and John Evelyn are also prominent figures, both targets of attempted conversion by Catholic hosts.[21]

It should not axiomatically be assumed that these hosts must have been hostile toward the Epicurean leanings of their guests. Urban VIII and his nephew Francesco apparently condoned translations of Lucretius *De rerum natura* by

discusses the link between the early seventeenth-century French *libertins* and Lucretius. He does not, however, address the importance of La Mothe le Vayer.

[18] The claim that probabilism helped prevent the persecution of free-thinking early modern French *libertins* should not be taken to imply that the *libertins* themselves approved of probabilism. Naudé, for instance, seems to have abhorred the laxity of contemporary casuists (see Pintard 1983: 561). Similarly, morally conservative attitudes can be found in La Mothe le Vayer, or in Bayle, their heir.

[19] On Barberini policies, especially with respect to culture, see, e.g. Onori Mochi and Arcangeli (2007); Rietbergen (2006).

[20] Gabriel Naudé (1600-1653) became librarian of Cardinal Guidi di Bagno in 1629 and then of Cardinal Francesco Barberini in 1641. Richelieu died too soon to for Naudé to become, as planned, his librarian, and Naudé returned to France to establish the famous library of Giulio Mazarini, Richelieu's self-chosen successor. On Naudé, see Bianchi (1996); Rice (1939). On his role in the development of 'reason of state' doctrines in France under Richelieu, see, e.g. Thuau (2000: 319).

[21] See Barbour (1998: 266, 272); Darley (2006: 58, 102).

their medical doctors.[22] Even if nothing came of these projects, the intellectual atmosphere in Italy was not notably less friendly toward Epicurean thought than in France and England. In 1644, Francesco 'Pietro' Sforza Pallavicino, then a Jesuit professor of philosophy at the *Collegio Romano* and later a cardinal of the Catholic Church, published his work *Del bene* in Rome. *Del bene* contains extensive discussions of Epicurean ethics and natural philosophy, some elements of which are accepted by the author (see Section 2.1).

In 1647, Giovanni Nardi published a newly commented edition of Lucretius' *De rerum natura* in Florence.[23] Nardi had been the personal physician of Grand Duke Ferdinand II and possessed a keen interest in the new sciences. His edition of Lucretius was the first to be published in Italy since 1515, and it came with a number of clerical endorsements. An apostolic protonotary and a Jesuit consultant of the Inquisition approved of the book. More importantly, and this often remains unnoted by scholars discussing Nardi, the book is dedicated to Maximilian I of Bavaria. Maximilian was the quintessential Counter-Reformation prince, if there ever was one (Bireley 1990: 154). The fact that it was possible to dedicate a commented edition of Lucretius to this man shows that the assumption of strict incompatibility between neo-Epicurean and Counter-Reformationist attitudes is far too simplistic.

Of course, both Nardi's and Pallavicino's books appeared after the death of Urban VIII, but it would be wrong to dissociate them from the intellectual atmosphere that had emerged under his pontificate. Many of the prelates and cardinals which had risen to power under Urban VIII showed some interest in new trends of thought and remained influential for one or two decades following his death.[24] Giovanni Delfino (1617-1699) still wrote Lucretius-inspired philosophical dialogues under Pope Alexander VII. Delfino became Bishop of Tagaste in 1656 and a cardinal in 1667 (Sarnelli 2020). Of course, it had long been possible in Catholic Italy to appreciate Lucretius for his literary and rhetorical qualities. In a letter dated 1557, Michele Ghisleri, soon to become Pope Pius V, rejected a ban on ancient poets, including Lucretius. Among the Jesuits, professors of rhetoric were apparently the first to show an interest in Lucretius.

[22] Alsario della Croce, physician of Urban VIII, wrote a now lost commentary on Lucretius; Nardi dedicated his edition of *De rerum natura* to Baldo Baldi, Urban VIII's physician (Beretta 2009: 7, 10).

[23] On Nardi, see Andretta (2012); Beretta (2009: 10); Butterfield (2016: 10); Palmer (2020: 185).

[24] A good example of such a cardinal is the staunchly pro-probabilist Francesco Albizzi (1593-1684). Albizzi was an assessor of the Holy Office for many years and thus managed the Inquisition's day-to-day business. It is important to note that he tried to stifle the bouts of witch hunting that erupted during his times. Ceyssens (1977) paints a rather unsympathetic picture of Albizzi, not least because Albizzi supported the persecution of Jansenists. Yet, his attempts to hold movements he considered fundamentalist at bay fit the picture of Albizzi as a moderate modernizer.

Tarquinio Galluzzi, a Virgil expert, remarks that Virgil learned from Lucretius. Famiano Strada, professor of rhetoric at the Collegio Romano from 1618 to 1647, praises Lucretius's style. It therefore comes as no surprise that the Jesuit Antonio Possevino takes a rather positive attitude toward Lucretius as a poet in his highly influential *Bibliotheca selecta*, even permitting the use of Lucretius in the classroom if suitably purged.[25]

Such friendly attitudes, as noted by many scholars, seem to only extend to Lucretius the poet, not Lucretius the Epicurean philosopher. It is remarkable precisely for this reason that the aforementioned books, which appeared in Rome and Florence in the 1640s, discuss the philosophical side of Epicureanism and Lucretius. Pallavicino's *Del bene* was even conceived in the *Collegio Romano*, the intellectual center of the Jesuit Order. Moreover, *Del bene* demonstrates that it was possible to publicly discuss Epicurean philosophy in Italian and not only in Latin, which would have restricted the discussion to safer intellectual circles. Let us therefore inspect Pallavicino's *Del bene* a bit more closely.

2.1. Pallavicino's *Del bene* and Epicureanism

Francesco 'Pietro' Sforza Pallavicino (1607-1667) is a particularly interesting thinker in the present context, because he combines a footing in the Galilean (and Lucretius-inspired) new science of the *Accademia dei Lincei*, with a sterling pedigree as one of the most important Jesuit scholastic theologians of his time.[26] He was also an ingenious theorist of moral probabilism. In *Del bene*, he critically investigates Hellenistic philosophies, with a special emphasis on Epicureanism and Pyrrhonian skepticism. Pallavicino's theory of the human natural good (i.e. the good bereft of a theological dimension) may, as I will argue, be understood as intellectual hedonism and thus as a Christianized form of Epicureanism or at least as an eclectic position with significant Christian Epicurean elements.

In his youth, the intellectually precocious Pallavicino became a member of

[25] On Ghisleri, see Galluzzi (1621: 118); Palmer (2020: 179); on Strada see Passannante (2011: 1); on Possevino, see Paladini (2011: 181). Prosperi (2007: 215) emphasizes Possevino's hostility toward Epicureanism and assumes a 'dissimulatory code' behind the uses of Lucretius in Counter-Reformation Italy. I am not convinced that dissimulation rather than a sincere assumption of a limited and if necessary curtailed acceptability of Lucretius in Christian culture characterizes the reception of Lucretius in early modern Italy (see, e.g. Palmer 2020).

[26] On Pallavicino, see Delbeke (2012; forthcoming); Favino (2014). Pallavicino, as I will call him for short, is referred to by different first names in the academic literature. His baptismal first names were Francesco Maria Sforza (the last also being used as a first name). Ever since the nineteenth century, and in much of the recent literature, Pallavicino has mostly been referred to as Pietro Sforza Pallavicino. To avoid confusion that Francesco and Pietro Sforza Pallavicino are two different persons, I have inserted 'Pietro', Pallavicino's best known but spurious first name, after 'Francesco', his true first name. On the naming issue, see Favino (2014).

the *Accademia dei Lincei* and a follower of Galilei. He was banned from Rome by Pope Urban VIII in 1632 for this reason. In 1637, Pallavicino returned to Rome and joined the Jesuit Order, soon becoming a professor of philosophy and later teaching theology at the Order's Roman College. In 1659, he was raised to the cardinalate by his lifelong friend Fabio Chigi, by then Pope Alexander VII. Pallavicino is best known as having authored the *History of the Council of Trent* (1656-1657), but his intellectual spectrum was vast, and included important work on art theory in collaboration with Gian Lorenzo Bernini (Delbeke 2012). In terms of moral theology, Pallavicino remained a probabilist for a long time (if not until the end), contributing significantly to the development of the scholastic discourse of probability.[27] At the same time, he never fully abandoned the views of his youth, which is apparent in the quadrilogue *Del bene* (1644; 1646, as *De bono* in Latin).

Del bene offers a glimpse into the intellectual debates of Rome's literate society in the early seventeenth century, of which the four interlocutors of the book were elite members. Alessandro Orsini (1592-1626), a scion of the ancient and noble Orsini of Bracciano, became cardinal in 1615, and at the same time was a patron of Galilei and a friend of the Jesuit Order (Famiano Strada dedicated a book to Alessandro Orsini).[28] He probably died too young for his own intellectual activities to leave a deeper mark. Antonio Querenghi (or Quarenghi, 1546-1633) was a notable poet and antiquarian. Like the young Pallavicino, Querenghi was also a member of the *Accademia degli Umoristi*, which strove to renovate Italian poetry under the aegis of the Barberini. Gerardo Saraceni was apparently a descendant of the noble and influential Saraceni family of Siena. I could not ascertain his role in the intellectual circles within which Pallavicino moved. Andreas Eudaemon-Joannis (or Eudaemoniannes, 1566-1625) was a Greek philosopher and theological controversialist, who joined the Jesuit Order in 1581, becoming a confidant of Roberto Bellarmino. He taught philosophy at the *Roman College* in the 1590s, later acquiring prominence as an anti-protestant polemicist and theological advisor of Francesco Barberini on the latter's French legation. Eudaemon-Joannis joins the discussion of *Del bene* in book two, whereas the other personages participated from the outset.

The fictional quadrilogue of these interlocutors is set after 1615 (Orsini is addressed as cardinal) and before 1625 (Eudaemon-Joannis's death). Pallavicino's plot thus implies that the Hellenistic philosophies, which the book addresses, were intensely and quite openly discussed in Rome during this decade, includ-

[27] See Knebel (2000: 111, 415, and many other references to Pallavicino); Schuessler (2019: 174, 459); Tutino (2018: 244).

[28] On the interlocutors, see the respective entries in the *Dizionario biografico degli italiani*.

ing clerical circles and the Jesuits. We will only focus here on the sympathetic treatment of Epicureanism in *Del bene*, which suggests that receptiveness to this school of thought was not anathema in Rome at the time. This, of course, is not to say that any of the interlocutors would have accepted Epicurean doctrines without Christian 'circumcision' (to use a term of François de la Mothe le Vayer). Nevertheless, an open-minded discussion of Epicurean ideas seems not only to have been possible in the decade 1615-25, but generally throughout the subsequent Barberini papacy.

Epicurus, the Epicureans, and Lucretius are mainly treated in three long passages of books one, two, and four of *Del bene*. Two of the discussions focus on Epicurean ethics, one on atomism (often with reference to Democritus) and randomness in Epicurean physics. Pallavicino's attitude towards Epicurean tenets is surprisingly amenable. On the one hand, he regards Epicurus as a quintessential promoter of a conception of sensual pleasure as the highest natural good, a conception he rejects, replacing it with intellectual pleasure as natural *summum bonum*. Being, thought, and joy (*diletto*) emerge as the three main natural goods in Pallavicino's approach. Nevertheless, he admits that sensual pleasure and pain contribute or detract from the human good, especially through their impact on calmness of mind and absence of pain, which are prerequisites for unhindered intellectual activity. Pallavicino's views on animal suffering document that sensual pleasure has at least some value of its own as a natural good. According to him, even the pleasures and pains of animals matter morally, although only slightly (Pallavicino 1644: 97).

In contrast to Epicurean ethics, Stoic ethics gets rather bad press in *Del bene*. Stoic teachings are more briefly discussed than Epicureanism or Pyrrhonian skepticism, and Pallavicino has Orsini quip that the Stoics were the Lutherans and Calvinists of the heathens.[29] In the summary of book two, Pallavicino maintains that Stoic philosophy is not merely wrong but pestilential.[30] With respect to Epicurus, by contrast, Pallavicino uses the classical defense that although Epicurus has been much maligned, Seneca speaks well of him. Moreover, Alessandro Orsini leans heavily towards Epicureanism. After defending the possibility that the world, with all its meaningful and machine-like order, could have come about by chance, Orsini confesses: "In sum, I am in great part an Epicurean, yesterday [i.e. the discussions of book one] in ethics, today [i.e. the discussions of book two] in physics".[31] Orsini's defense of Epicurean

[29] "[F]urono, si può dire, i Luterani, e i Calvinisti del gentilesimo" (Pallavicino 1644: 309).

[30] "La filosofia degli Stoici non solo è falsa, mà pestilente" (Pallavicino 1644: 317).

[31] "In sommo io son grandemente Epicureo, ieri nella morale, oggi nella fisica" (Pallavicino 1644: 264).

(and Lucretian) ideas on the gestation of the world through particle movement and swerve is based on ingenious statistical reasoning from the cutting edge of mid-seventeenth-century scholastic probability theory.[32] On the basis of seventeenth-century forays into combinatorics, Pallavicino points out that any combination of atoms is as probable as any other combination. It is equally likely that a random alignment of letters produces the *Iliad* or that it results in a particular meaningless mess of letters. Apparent intelligent design is therefore not proof of intelligent planning. However, this argument is later countered by another statistical argument brought forward by the interlocutor Antonio Querenghi. The more elements a meaningful whole consists of, the more unlikely it is that it came about merely by chance. Thus, the artful composition of the universe prevails at the end. Yet the fact that a Jesuit professor at the *Collegio Romano* could write and publish a book in the 1640s in which a Catholic cardinal professes to largely hold Epicurean views demonstrates that fierce opposition to this brand of thought cannot have been as deeply entrenched in Rome and among the Jesuits as is often purported. Cardinal Alessandro Orsini was a historical figure, and Pallavicino would hardly have dared to impute a pro-Epicurean stance to him if such a position had been too far from the truth. Moreover, Pallavicino's own ethics of natural happiness is a form of hedonism, and although he takes care to delimit his intellectual hedonism from an (alleged) Epicurean hedonism of the senses, he accepts elements from Epicurus's doctrine. For Pallavicino, natural happiness is joy or pleasure (*gaudio*, *diletto*) derived from a structured aggregate of natural goods. These consist of three principal internal natural goods (being, knowing, and enjoying/*essere*, *conoscere*, *dilettarsi*), two external natural goods (love and honor), one moral good (right action), and a negative natural good (absence of badness) with five dimensions (absence of error, pain, guilt, hate, dishonor) (1644: 489). The extent of a person's natural happiness results from the balance of *diletto* deriving from the aggregate of these goods. Knowledge is the greatest human good, contributing the best, most efficacious, and most durable pleasure. Since in Pallavicino's view, Epicurus regarded sensual pleasures as the highest good, such an appreciation of intellectual pleasures was not Epicurean, an assessment that stands to be corrected if we acknowledge that Epicurus, in fact, exalted intellectual pleasures. In any case, Pallavicino views absence of bodily pain as a practical precondition for the enjoyment of intellectual pleasures. Andreas Eudaemon-Joannis accordingly concludes"in part against and in part in favor" of the"Epicurean sect" that the pleasures of the senses contribute only minimally to our happiness, but sensual pain represents

[32] On Pallavicino's contribution to statistical reasoning in moral theology, see Knebel (2000); Schuessler (2019), Chap. 12.

a great part of our misery.[33] Absence of pain is therefore an important element of Pallavicino's conception of natural happiness, and this element is associated with Epicurus in *Del bene*.

Finally, Pallavicino's initial statistical defense of a random constitution of the universe provides direct evidence of how new developments in the scholastic discourse of probability, which to a considerable extent were motivated by the debate on probabilism in moral theology, could become relevant for the evaluation of ancient philosophies. In a first run of his argument, Pallavicino undercuts a central objection against Epicurean physics, namely that it cannot explain the observable order of the universe. Even in light of the final counter-argument, Epicurean physics is not defeated by traditional Aristotelian assumptions, but by new possibilities inherent in the scholastic discourse of probability. Epicurus thus emerges as an interesting sparring partner for new currents of Catholic thought. This further corroborates that Gassendi's endorsement of a Christianized form of Epicureanism was neither as subversive nor as risky as is often claimed.

3. *Probabilism c. 1650-1700 and Epicureanism in Italy*

Broader opposition against probabilism began to surface in the 1640s, reaching new heights after 1656, when Blaise Pascal's *Provincial Letters* instigated a storm of indignation, and the Dominican Order dissociated itself from probabilism.[34] Thereafter, probabilism became highly controversial among Catholic moral theologians.

There are many reasons for the rise of opposition against probabilism after 1640. Jansenism became an influential albeit controversial current of Catholic thought after this date, and the austere morality of the Jansenists as well as their psychological pessimism proved incompatible with probabilism. Jansenists such as Blaise Pascal and Antoine Arnauld, surely in self-defense, conducted a veritable propaganda campaign against probabilism and the Jesuits, the order with which probabilism was most closely associated (see, e.g. Radner 2016). As evidenced by the bestseller status of Pascal's *Provincial Letters*, this campaign was tremendously successful and caused many lukewarm supporters of probabilism to duck and take cover. It should be noted, however, that enthusiasm for probabilism had already cooled at the curia in Rome before Pascal's polemic

[33] "Per tanto io inferisco quest'ultima conclusione, in parte contraria, in parte favorevole alla seta Epicurea. I diletti del senso tengono una piccola porzione della nostra felicità; ma il dolore del senso è gran porzione della nostra miseria" (Pallavicino 1644: 592).

[34] On the Catholic opposition to probabilism, see Deman (1936: 501); Gay (2012); Schuessler (2019), Chap. 8; Tutino (2018), Chap. 6.

unfolded. Alexander VII took an ambivalent stance towards the doctrine, and both friends and foes of probabilism were well-balanced among his collaborators.[35] Catholic enemies of probabilism often claim that Pallavicino himself, one of the most important probabilists of the mid-seventeenth century, finally reneged on probabilism in his later years, that is, after his friend Fabio Chigi had become Pope Alexander VII (see Döllinger and Reusch, Vol. 1 1889: 52; Schuessler 2019: 130). In my opinion, the end of the Thirty Years War plays a significant role in this reversal of fortune. Probabilism seems to have been clearly advantageous for the Catholic Church and Catholic princes as long as they prioritized the allegiance of populations to their war effort more than the moral quality of said populations. After territories had become confessionally determined by the Thirty Years War, the task of moral theology shifted. Princes and Catholic hierarchs increasingly began to focus on the moral improvement of populations instead of merely securing their allegiance. Where such concerns gained the upper hand (and this did not happen everywhere in the Catholic World at the same time and to the same degree), promoters of a more rigorous moralization managed to roll back probabilism and the intellectual openness it had helped spawn.

Even notable theologians of the Jesuit Order, the former epicenter of probabilism, began to oppose the doctrine in the 1670s. It deserves to be noted, however, that none of these attacks managed to fully silence probabilism in Catholic moral theology. Even the resolutely antiprobabilist campaign by the Superior General of the Jesuit Order, Tirso González, in the 1690s did not suffice to dissociate the Jesuits from probabilism (Gay 2012). Many late seventeenth- and eighteenth-century Catholic moral theologians remained probabilists, and in some regions, probabilism continued to thrive, spearheaded as usually by Jesuits (see De Franceschi 2020; Schuessler 2019: 141; Tutino 2018: 351). Still, the storm of opposition against probabilism in the late seventeenth century took its toll. It seriously weakened the support controversial moral and philosophical opinions could derive from Catholic moral theology. The permission to favor one's own convenience and utility over uncertain moral laws was now being condemned as pernicious. The opponents of probabilism demanded good Christians to prioritize moral law over their private predilections when they were in doubt about the applicability of the former. This view, of course, limited the scope of legitimate Epicurean pleasure-seeking.

A sequence of papal condemnations of permissive moral views bears witness to the strength of antiprobabilist sentiments. Pope Alexander VII issued a condemnation of lax moral sentences in 1665-1666 and Innocent XI denounced

[35] For probabilists and anti-probabilists around Alexander VII, see Ceyssens (1977).

further sentences in 1679 (Quantin 2002). Both condemnations were deemed a blow to probabilism. In fact, Innocent XI (1611-89) lashed out against many writings that failed to correspond to his austere worldview. It is hardly coincidental that Montaigne's *Essais* were included in the index of prohibited books in 1676 after having been considered permissible and enjoyable reading for Catholics for nearly a century (see Smith 1981: 114).[36]

Although attacks on probabilism weakened some props of hedonistic or Epicurean views, they did not uniformly determine the fate of such views in the Catholic world. In France, where probabilism was in retreat during the second half of the seventeenth century, propitious conditions apparently contributed to a greater resilience of and even progress in Epicurean thought. Gassendi was a French thinker and his international repute reflected positively on French philosophy. Moreover, Cartesian natural philosophy may have indirectly strengthened Epicureanism, from which its mechanistic worldview derived.[37] In Italy, probabilism proved more resilient than in France, but Epicurean thought diminished further in the second half of the seventeenth century, probably because papal antiprobabilism had a more direct impact. Between 1664 and 1667, Alessandro Marchetti worked on a translation of Lucretius' *De rerum natura*.[38] His translation benefitted from the earlier, favorable attitude toward atomistic thought in the *Accademia del Cimento*, whose patron Leopoldo de' Medici avidly supported the new sciences. When Marchetti finalized his translation in 1667 (when lax moral opinions had just been condemned) and asked Leopoldo for permission to publish it, his request was denied. Leopoldo was elevated to the cardinalate in the same year and reversed his former intellectual policies. The impact on the discussion of Epicureanism in Tuscany was immediate. Grand Duke Cosimo III made the publication of Marchetti's translation of Lucretius dependent on assent by the Holy Office in Rome, which was not forthcoming. In 1691, he banned the teaching of atomism at the University of Pisa. Marchetti's work was finally published in 1717 in London. In Rome, it was duly included in the index of prohibited books a year later.[39]

The fate of Marchetti's translation should not be regarded as proof of a sustained centuries-long aversion against Epicurean thought in Italy. It should rather be understood in the context of mood swings between openness and conservatism in Italian intellectual centers. We should not expect synchronous swings

[36] On Montaigne's relationship to Epicureanism and Lucretius, in particular, see Ford (2007).

[37] On Epicureanism in France in the second half of the seventeenth century, see Kors (2016); Kraye (1999).

[38] On Marchetti's translation and the following developments, see Beretta (2009); Costa (2012); Palmer (2020: 185).

[39] See Beretta (2009); Costa (2012).

for the entire Catholic Church, whose position was rarely monolithic in the early modern era. Cycles of tolerance for and opposition to philosophical doctrines resulted much more from temporary changes in the balance of power and influence of competing power networks within the Catholic Church. Networks of probabilists and antiprobabilists played an important role in this respect.

4. *Conclusion*

This paper has shown that the ups and downs of two major intellectual currents in seventeenth-century Catholic Europe were in partial sync, and not fortuitously. Probabilism facilitated the spread of Epicurean ideas in Catholic Europe. Since probabilism was a general moral theological framework for dealing with controversial opinions, the flourishing of this doctrine in the first half of the seventeenth century affected intellectual activities far beyond the narrow confines of scholastic theology. The probabilist license to prioritize one's own utility or convenience under moral uncertainty facilitated the spread of Epicurean ideas in centers of probabilist theology such as Italy and France. In the first half of the seventeenth century, Epicurean and Lucretian philosophy could, in fact, be sympathetically discussed during the hightide of probabilism.

The acrimonious criticism of probabilism in the second half of the seventeenth century therefore had a restrictive effect. In Italy, it seems to have obstructed the spread of Epicurean ideas. In France, the outcome was different. Although opposition to probabilism became more powerful in Louis's XIV France than in Italy, a host of countervailing trends can be observed. Gassendi was a French thinker, and Cartesianism, the second new school of thought in France, promoted mechanism in natural science. The pronounced rise of a new scientific worldview in France may therefore have compensated neo-Epicureans for the decreased protection offered by probabilism.

Rudolf Schuessler
University of Bayreuth
rudolf.schuessler@uni-bayreuth.de

References

1. Primary sources

Baron, Vincent, 1667, *Theologia moralis adversus laxiores probabilistas*, Balleoni, Venice.

Galluzzi, Tarquinio, 1621, *Virgilianae vindicationes*, Alexandro Zannetti, Rome.

Gonzalez, Tirso, 1694, *Fundamentum theologiae moralis, id est tractatus theologicus de recto usu opinionum probabilium*, Jacob Komarek, Rome.

Pallavicino, Franceso Pietro Sforza, 1644, *Del bene libri quattro*, Francesco Corbelletti, Rome.

Perez, Antonio OSB, 1604, *Laurea Salmantina*, Taberniel, Salamanca.

Salas, Juan de., 1607, *Disputationes in Primam Secundae Divi Thomae*, Graells and Dotil, Barcelona.

Silhon, Jean de, 1626, *Les deux vérités de Silhon*, Laurent Sonnius, Paris.

Suárez, Francisco, 1856,"De Bonitate et malitia humanorum actuum", in *Opera omnia*, 4, Vives, Paris.

2. Studies

Andretta, Elisa, 2012, "Nardi, Giovanni", in *Dizionario biografico degli italiani*, 77. Available at: www.treccani.it/enciclopedia/giovanni-nardi (Accessed: 19 March 2021).

Barbour, Reid, 1998, *English Epicures and Stoics. Ancient legacies in early Stuart culture*, University of Massachusetts Press, Amherst, MA.

Beretta, Marco, 2008,"Gli scienziati e l'edizione del *De rerum natura*", in Marco Beretta and Francesco Citti, eds., *Lucrezio. La natura e la scienza*, Olschki, Florence: 184-191.

—, 2009,"Lucretius as hidden auctoritas of the Cimento", in Marco Beretta, Antonio Clericuzio, and Lawrence Principe, eds., *The Accademia del Cimento and its European Context*, Science History Publications, Sagamore Beach, MA: 1-18.

Bianchi, Lorenzo, 1996, *Rinascimento e libertinismo: Studi su Gabriel Naudé*, Bibliopolis, Naples.

Bireley, Robert, 1990, *The Counter-Reformation Prince: Anti-Machiavellianism or Catholic Statecraft in Early Modern Europe*, University of North Carolina Press, Chapel Hill.

Burgio, Santo, 1998, *Teologia Barocca: Il probabilismo in Sicilia nell'epoca di Filippo IV*, Società di Storia patria per la Sicilia orientale, Catania.

Butterfield, David, 2016, "Lucretius in the Early Modern Period", in Norbrook, David, Stephen Harrison, and Philip Hardie, eds., *Lucretius and the Early Modern*, Oxford University Press, Oxford: 45-68.

Ceyssens, Luc, 1977, *Le Cardinal François Albizzi (1593-1684)*, Pontificum Athenaeum Antonianum, Rome.

Costa, Gustavo, 2012, *Epicureismo e pederastia: Il "Lucrezio" e l'"Anacreonte" di Alessandro Marchetti secondo il Sant'Uffizio*, Olschki, Florence.

Craik, Henry, 1911, *The Life of Edward Early of Clarendon*, 1, Smith, Elder & Co., London.

Darley, Gillian, 2006, *John Evelyn*, Yale University Press, New Haven.

De Franceschi, Sylvio, 2020, "Le basculement de la théologie morale catholique allemande", in Sara Di Giulio and Alberto Frigo, eds., *Kasuistik und Theorie des Gewissens von Pascal bis Kant*, De Gruyter, Berlin: 91-142.

Delbeke, Maarten, 2012, *The Art of Religion: Sforza Pallavicino and Art Theory in Bernini's Rome*, Ashgate, Farnham.

—, forthcoming, *Sforza Pallavicino. A Jesuit Life in Baroque Rome*, Brill, Leiden.

Döllinger, Ignaz and Franz Reusch, 1889, *Geschichte der Moralstreitigkeiten in der römisch-katholischen Kirche seit dem 16. Jahrhundert*, Beck, Nördlingen.

Favino, Federica, 2014, "Pallavicino, Francesco Maria Sforza", in *Dizionario biografico degli italiani* 80. Available at: www.treccani.it/enciclopedia/francesco-maria-sforza-pallavicino (Accessed: 20 February 2021).

Ford, Philip, 2007, "Lucretius in Early Modern France", in Gillespie and Hardie 2007: 227-241.

Forster, Mark, 2001, *Catholic Revival in the Age of the Baroque: Religious Identity in Southwest Germany, 1550-1750*, Cambridge University Press, Cambridge.

Freedberg, David, 2002, *The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History*, University of Chicago Press, Chicago.

Gay, Jean-Pascal, 2018, *Le dernier théologien? Théophile Raynaud, histoire d'un obsolescence*, Beauchesne, Paris.

Gay, Jean-Pascal, 2012, *Jesuit Civil Wars: Theology, Politics and Government under Tirso González (1687-1705)*, Ashgate, Farnham.

Gay, Jean-Pascal, 2011, *Morales en conflit: Théologie et polémique au Grand Siècle (1640-1700)*, Cerf, Paris.

Gillespie, Stuart and Philip Hardie, 2007, eds., *The Cambridge Companion to Lucretius*, Cambridge University Press, Cambridge.

Gillespie, Stuart, 2007, "Lucretius in the English Renaissance", in Gillespie and Hardie, 2007: 227-241.

Hall, Marcia, and Tracy Cooper, 2013, eds., *The Sensuous in the Counter-Reformation Church*, Cambridge University Press, Cambridge.

Holmes, Peter, 1981, *Elizabethan Casuistry*, Catholic Record Society, Norfolk.

—, 2012, ed., *Caroline Casuistry. The Cases of Conscience of Fr. Thomas Southwell SJ*, Boydell Press, Woodbridge.

Kargon, Robert, 1964, "Walter Charleton, Robert Boyle, and the Acceptance of Epicurean Atomism in England", in *Isis,* 55, 2: 184-192.

Knebel, Sven, 2000, *Wille, Würfel und Wahrscheinlichkeit*, Felix Meiner, Hamburg.

Kors, Alan, 2016, *Epicureans and Atheists in France 1650-1729*, Cambridge University Press, Cambridge.

Kraye, Jill, 1990, "Moral philosophy", in Quentin Skinner and Eckhard Kessler, eds., *Cambridge History of Renaissance Philosophy*, Cambridge University Press, Cambridge: 303-386.

—, 1999, "Stoicism and Epicureanism: Philosophical Revival and Literary Repercussions", in Glyn Norton, ed., *The Cambridge History of Literary Criticism Vol. III: Renaissance*, Cambridge University Press, Cambridge: 458-465.

Lennon, Thomas, 1993, *The Battle of the Gods and Giants: The Legacies of Descartes and Gassendi 1655-1715*, Princeton University Press, Princeton.

LoLordo, Antonia, 2006, *Pierre Gassendi and the Birth of Early Modern Philosophy*, Cambridge University Press, Cambridge.

Miller, Peter, 2000, *Peiresc's Europe*, Yale University Press, New Haven.

Mitsis, Philip, 2020, *The Oxford Handbook of Epicurus and Epicureanism*, Oxford University Press, Oxford.

Norbrook, David, 2015, "Lucy Hutchinson: Theology, Gender and Translation", in *The Seventeenth Century*, 30, 2: 139-162.

—, 2016, "Atheists and Republicans: Interpreting Lucretius in Revolutionary

England", in Norbrook, Harrison, and Hardie 2016: 223-258.

Norbrook, David, Stephen Harrison, and Philip Hardie, 2016, eds., *Lucretius and the Early Modern*, Oxford University Press, Oxford.

Onori Mochi, Lorenza, and Luciano Arcangeli, 2007, eds., *I Barberini e la cultura europea del Seicento*, De Luca, Rome.

Paganini, Gianni, 2020, "Early Modern Epicureanism: Gassendi and Hobbes in Dialogue on Psychology, Ethics, and Politics" in Mitsis, 2020: 671-710.

Paganini, Gianni, and Edoardo Tortarolo, 2004, eds., *Der Garten und die Moderne. Epikureische Moral und Politik vom Humanismus bis zur Aufklärung*, Steiner, Stuttgart.

Paladini, Mariantonietta, 2011, *Lucrezio e l'Epicureismo tra Riforma e Controriforma,* Liguori, Naples.

Palmer, Ada, 2014, *Reading Lucretius in the Renaissance*, Harvard University Press, Cambridge, MA.

—, 2020, "The Persecution of Renaissance Lucretius Readers Revisited", in Hardie, Philip, Valentina Prosperi, and Diego Zucca, eds., *Lucretius Poet and Philosopher: Background and Fortunes of "De Rerum Natura"*, De Gruyter, Berlin: 177-197.

Passannante, Gerard, 2011, *The Lucretian Renaissance: Philology and the Afterlife of Tradition*, The University of Chicago Press, Chicago.

Pintard, René, 1983, *Le libertinage* érudit *dans la première moitié du XVIIe siècle*, Slatkine, Geneva.

Prosperi, Valentina, 2004, *Di soavi licor gli orli il vaso: La fortune di Lucrezio* *dall'Umanesimo alla Controriforma*, Aragno, Turin.

—, 2007, "Lucretius in the Italian Renaissance", in Gillespie and Hardy: 214-226.

—, 2009, "Per un bilancio della fortuna di Lucrezio in Italia tra Umanesimo e Controriforma", in *Sandalion*, 31: 191-210.

Quantin, Jean-Louis, 2002, "Le Saint-Office et le probabilisme (1677-1679)", in *Mélanges de l'École Française de Rome*, 114: 875-960.

Radner, Ephraim, 2016, "Early Modern Jansenism", in Ulrich Lehner, Richard Muller, and A. G. Roeber, eds., *The Oxford Handbook of Early Modern Theology, 1600-1800*, Oxford University Press, Oxford: 436-450.

Raylor, Timothy, 1999, "Pleasure Reconciled with Virtue: William Cavendish, Ben Jonson, and the Decorative Scheme of Bolsover Castle", in *Renaissance Quarterly*, 52: 402-439.

—, 2010, "Exiles, Expatriates, and Travellers: Towards a Cultural and Intellectual History of the English Abroad", in Philip Major and Lisa Jardine, eds., *Literatures of Exile in the English Revolution and Its Aftermath 1640-1690*, Ashgate, London: 15-43.

Reinhardt, Nicole, 2016, *Voices of Conscience: Royal Confessors and Political Counsel in Seventeenth-Century Spain and France*, Oxford University Press, Oxford.

Rice, James, 1939, *Gabriel Naudé, 1600-1653*, Johns Hopkins University Press, Baltimore.

Rietbergen, Peter, 2006, *Power and Religion in Baroque Rome*: *Barberini Cultural Policies*, Brill, Leiden.

Sarasohn, Lisa, 1991, "Epicureanism and the Creation of Privatist Ethic in Early Seventeenth-Century France", in Osler, Margaret, ed., *Atoms, Pneuma, and Tranquillity: Epicurean and Stoic Themes in European Thought*, Cambridge University Press, Cambridge: 175-196.

—, 2011, "Margaret Cavendish, William Newcastle and Political Marginalization", in *English Studies*, 92: 806-817.

Sarnelli, Mauro, 2020, "Lucretius in (Moderate) Baroque", in Philip Hardie, Valentina Prosperi, and Diego Zucca, eds., *Lucretius Poet and Philosopher: Background and Fortunes of* "*De Rerum Natura*", De Gruyter, Berlin: 251-272.

Schuessler, Rudolf, 2019, *The Debate on Probable Opinions in the Scholastic Tradition*, Brill, Leiden.

Schwartz, Daniel, 2019, *The Political Morality of the Late Scholastics: Civic Life, War and Conscience*, Cambridge University Press, Cambridge.

Sedgwick, Peter, 2019, *The Origins of Anglican Moral Theology*, Brill, Leiden.

Smith, Macolm, 1981, *Montaigne and the Roman Censors*, Droz, Geneva.

Thuau, Etienne, 2000, *Raison d'etat et pensée politique* à l'époque de Richelieu, Michel, Paris.

Tutino, Stefania, 2018, *Uncertainty in Post-Reformation Catholicism: A History of Probabilism*, Oxford University Press, Oxford.

Walters, Lisa, 2020, "Epicurus and Gender in the British Newcastle Circle: Charleton, Hobbes and Margaret Cavendish", in Lisa Hopkins and Tom Rutter, eds., *A Companion to the Cavendishes*, Arc Humanities Press, Leeds: 181-189.

Wilson, Catherine, 2008, *Epicureanism at the Origins of Modernity*, Oxford University Press, Oxford.

Betting and Presuming: From God's Existence to Morality and Law

Alberto Artosi, Giovanni Sartor*

Abstract: Pascal famously argued that since God transcends the rational domain of demonstration, we must *bet* on his existence. Less famously, Leibniz claimed that in the absence of a full-fledged demonstration of God's existence, we at least have to *presume*, that is to say, to assume, that he exists until the contrary is proved. Aside from marking a significant contrast between these two leading figures of modern philosophy (Leibniz would later reproach Pascal for having "paid attention only to moral arguments"), these two stances are at the origin of two independent developments: decision theory and presumptive reasoning, respectively. In this paper we will provide a critical account of Pascal's and Leibniz's lines of thought by first presenting the original arguments and then reconstructing them in light of the developments they gave rise to. Finally, we will advance some remarks about the interplay of presumption and probability in Leibniz's approach to morality and law.

1. *Introduction*

In the "Pascal's Wager" entry in the *Stanford Encyclopedia of Philosophy*, we find it remarked that "it is important to contrast Pascal's argument with various putative 'proofs' of the existence of God that had come before it" (Hájek 2018). In our opinion it is even more important to contrast Pascal's argument with a later argument advanced by his younger contemporary Gottfried Wilhelm Leibniz. At first sight, the two arguments originate from the common acknowledgment that none of the available "proofs" was able to conclude to God's existence. Pascal thought that he could nonetheless provide compelling reasons for acting as if one believed in God's existence. In an apparently similar vein, Leibniz proposed that in the absence of a valid deductive demonstration of God's existence we at least have to presume, that is to say, to assume, that he exists until the contrary is proved. In reality the two arguments are very different. For one thing, Leibniz thought, in contrast to Pascal, that the ontological argument could be "completed" so to satisfy the canons of demonstrative validity. In the second place, Pascal's argument has an explicit decision-theoretic character: it ap-

* G. Sartor has been supported by the H2020 ERC Project "CompuLaw" (G.A.\ 833647).

philinq X, 2-2022, pp. 219-238
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.429

peals to considerations of probability and utility to sketch a clear formulation of what was much later to become the theory of rational choice under uncertainty. Leibniz's argument instead traces to the traditional legal procedure of accepting something as true as long as there is no proof to the contrary. But by proposing such a procedure as a perfectly reasonable alternative to the classical deductive ways of establishing God's existence, Leibniz anticipated those reasoning patterns which are now captured by various logics of defeasible inference.[1] So, in the last analysis, it could be said that Pascal and Leibniz made the two first decisive contributions to the development of a theory of practical rationality. Our aim in this paper is to account for those contributions by first presenting the original arguments and then reconstructing them in light of the developments they gave rise to. Finally, we advance some remarks about the interplay between presumption and probability in Leibniz's account of morality and law.

2. *Betting on God*

In an imaginary exchange with St. Anselm, trying to convince the *insipiens* by proving to him that God exists, Pascal would have objected that "the metaphysical proofs of God are so far removed from man's reasoning, and so complicated, that they have little force" (Pascal 1670/1999: 63).[2] However, he could have continued, we can convince a rational *insipiens* that acting as if God existed is the absolutely best thing to do. This is exactly what Pascal set out to do in his celebrated fragment *Infini*, *rien* ("Infinite, nothing"). Let us read the relevant passages from this text. (In what follows we have confined ourselves to making explicit its intrinsically dialectical structure by giving it the form of a dialogue between a proponent *P* and an opponent *O* who must be convinced of the inevitability and rationality of choosing to live as if God existed).

P: Let us now speak according to natural lights.

If there is a God, he is infinitely beyond our comprehension, since, having neither parts nor limits, he bears no relation to ourselves. We are therefore incapable of knowing either what he is, or if he is. That being so, who will dare to undertake a resolution of this question? It cannot be us, who bear no relationship to him.

[1] This is something Leibnizian scholars have generally neglected. At best, Leibniz's presumptive argument for God's existence has been viewed as an inferior alternative to proof to which Leibniz submitted unwillingly never giving up thinking that "he could *prove* the existence of God in one way or other" (Adam 1994: 194).

[2] The text continues: "When they do help some people it is only at the moment when they see the demonstration. An hour later they are afraid of having made a mistake". On Pascal's rejection of the metaphysical proofs of God's existence, see Carraud (1991).

Who will then blame the Christians for being unable to provide a rational basis for their belief, they who profess a religion for which they cannot provide a rational basis? They declare that it is a folly, *stultitiam* (*I Cor.* I, I8) in laying it before the world: and then you complain that they do not prove it! If they did prove it, they would not be keeping their word. It is by the lack of proof that they do not lack sense.

O: Yes, but although that excuses those who offer their religion as it is, and that takes away the blame from them of producing it without a rational basis, it does not excuse those who accept it.

P: Let us therefore examine this point, and say: God is, or is not. But towards which side will we lean? Reason cannot decide anything. There is an infinite chaos separating us. At the far end of this infinite distance a game is being played and the coin will come down heads or tails. How will you wager? Reason cannot make you choose one way or the other, reason cannot make you defend either of the two choices. So do not accuse those who have made a choice of being wrong, for you know nothing about it!

O: No, but I will blame them not for having made this choice, but for having made any choice. For, though the one who chooses heads and the other one are equally wrong, they are both wrong. The right thing is not to wager at all.

P: Yes, but you have to wager. It is not up to you, you are already committed. Which then will you choose? Let us see. [1] Since you have to choose, let us see which interests you the least. You have two things to lose: the truth and the good, and two things to stake: your reason and will, your knowledge and beatitude; and your nature has two things to avoid: error and wretchedness. Your reason is not hurt more by choosing one rather than the other, since you do have to make the choice. That is one point disposed of. But your beatitude? Let us weigh up the gain and the loss by calling heads that God exists. Let us assess the two cases: if you win, you win everything; if you lose, you lose nothing. Wager that he exists then, without hesitating!

O: This is wonderful. Yes, I must wager. But perhaps I am betting too much.

P: Let us see. [2] Since there is an equal chance of gain and loss, if you won only two lives instead of one, you could still put on a bet. But if there were three lives to win, you would have to play (since you must necessarily play), and you would be unwise, once forced to play, not to chance your life to win three in a game where there is an equal chance of losing and winning. But there is an eternity of life and happiness. [3] And that being so, even though there were an infinite number of chances of which only one were in your favour, you would still be right to wager one in order to win two, and you would be acting wrongly, since you are obliged to play, by refusing to stake one life against three in a game where out of an infinite number of chances there is one in your favour, if there were an infinitely happy infinity of life to be won. But here there is an infinitely happy infinity of life to be won, one chance of winning against a finite number of chances of losing, and what you are staking is finite. That removes all choice: wherever there is infinity and where there is no infinity of chances of losing against one of winning, there is no scope for wavering, you have to chance everything. […] That is conclusive, and, if human beings are capable of understanding any truth at all, this is the one (Pascal 1670/1999: 153-5).

As to items [1]-[3], they have been interpolated in the text to mark the sequence of the three different logical arguments of increasing strength which constitute the overall argument.[3] These arguments are looked at in the next section.

3. *The logic of the game*

In this section we provide a simple game-theoretic account of Pascal's arguments tracking the original text as closely as possible. Argument [1] arises from *O*'s objection to *P*'s invitation to consider the situation as a game of heads and tails (notice that *O* here objects not, as Voltaire would have done in his time, that "this idea […] ill benefits the seriousness of the subject",[4] but that the right thing to do is not to bet at all). In response to such an objection *P*, having emphasized that *O* cannot avoid betting ("you are committed"), presents him with the following game. There are two possibilities (or "states of the world", in the usual game-theoretic terminology), s_1 = God exists and s_2 = God does not exist, and two possible courses of action (or "strategies"): a_1 = betting that God exists and a_2 = betting that God does not exist. Let u_{ij} ($i, j \in \{1,2\}$) be the payoff ("utility") resulting from the choice of strategy a_i if it is the case that the "true" state of the world is s_j. The game can be summarized in the following matrix:

	s_1	s_2
a_1	u_{11}	u_{12}
a_2	u_{21}	u_{22}

Let $u_{11} = 1$ (you win everything) and $u_{12} = u_{22} = 0$ (you lose nothing; note that at this point *P* neglects what has just been said regarding the possible losses of choosing a_1 and the true state of the world turning out to be s_2). Given that the matrix also contemplates the case in which you choose a_2 and the true state of the world turns out to be s_1, let $u_{21} = -1$ (you lose everything). Thus we have

	s_1	s_2
a_1	1	0
a_2	–1	0

[3] As has been conclusively demonstrated by Hacking (1972).

[4] *On Mr. Pascal's Pensées*, remark V (Voltaire 1733-34/2007: 104).

which, of course, rationally mandates choosing a_1. In fact, in the case in which the true state of the world is s_1, the payoff resulting from choosing a_1 is strictly better, whereas in the case in which the true state of the world is s_2, it is not worse than the payoff resulting from choosing a_2. In game-theoretic terms, a_1 is said to be dominant. Thus, *O* must bet on God's existence because this is the dominant strategy in the game.

Argument [2] arises from another objection of *O*: I could have something to lose, and perhaps much to lose, if I choose a_1 and the true state of the world is s_2. In reply to this objection *P* proposes another game. *O* must choose between a_1 = betting 1 in order to win 2 and a_2 = not betting. The payoffs are thus as in the following matrix (*W* and *L* stand for winning and losing, respectively):

	W	*L*
a_1	2	–1
a_2	0	0

In this game, strategy a_1 is patently not dominant (-1 is strictly worse than 0). However, *O* is told that there is an equal chance of winning and losing. This implies that *O* must "treat the problem as one of risk with the uniform *a priori* probability distribution over states, and to each act a_i assign its expected utility index, $u_{i1} + u_{i2} + \ldots + u_{in}/n$, and choose the act with the largest index" (Luce and Raiffa 1957: 282; adapted to our notation). By performing the calculation corresponding to the values in the matrix, a_1 turns out to have expected utility index $(2 + (-1))/2 = 0.5$ (a_2 obviously has expected utility index 0). Given this value, *O* "could still put on a bet". But suppose that the first row in the matrix is modified as follows:

	W	*L*
a_1	3	–1
a_2	0	0

In this case, the expected utility index associated with a_1 turns out to be $(3 + (-1))/2 = 1$, so that *O* would be "unwise" not to bet. But what, now, if the payoff is infinite ("there is an eternity of life and happiness")? This gives rise to argument [3]. This argument can be construed as a sort of *a fortiori* argument. *P* starts out by arguing that *O* "would still be right" to bet 1 in order to win 2 even in a game in which there is only one chance of winning against *infinite* chances of losing, and that he "would be acting wrongly" if he refused to bet 1 in order to win 3 in the same game. Thus, *P* concludes, *O* should, by even greater force of logic, bet in a game in which "there is an infinitely happy infinity of life to be won, one chance of winning against a *finite* number of chances of losing, and what you are staking is finite". For, in this case, any positive and finite probability of winning, no matter how small, is sufficient for betting ("there is no scope for wavering, you have to chance everything"). Consider, in fact, the following matrix:

	$S1$	$S2$
a_1	∞	u_{12}
a_2	u_{21}	u_{22}

where u_{12}, u_{21}, and u_{22} are finite (this is implied by *O*'s suggestion that "what you are staking is finite"). Given that *O* now has an *a priori* probability distribution p, $1\text{-}p$, with $p > 0$ for winning and losing, respectively, the expected utility index is to be calculated as the sum of the payoffs associated with a_1 and a_2 multiplied for the probability of winning and losing:

$$a_1\colon \infty \cdot p + u_{12} \cdot (1 - p) = \text{infinite}$$
$$a_2\colon u_{21} \cdot p + u_{22} \cdot (1 - p) = \text{finite}$$

which rationally mandates choosing the strategy associated with God's existence, so that the argument turns out to be really "conclusive". In fact, as Hacking (1975: 203) has argued, it is unquestionably valid in the logicians' sense that the conclusion follows from the premises. Whether it is also persuasive is a whole different story (see Section 6 below).

4. *From betting to presuming*

From a receipt for the purchase of a copy of the work (A I, 1, 436),[5] we know that Leibniz was acquainted with Pascal's *Pensées* as early as 1671, just one year after its first edition.[6] Thus, he had had all the time to meditate Pascal's argument when, in a letter to Veit Ludwig von Seckendorf dated 1/11 June 1683, he wrote:

> Pascal paid attention only to moral arguments, such as he excellently presented in his little posthumous book of *Thoughts*, but he did not put much value on the metaphysical arguments which Plato and St. Thomas, and other philosophers and theologians have used in proving the divine existence and immortality of the soul. In this I do not agree with him. I think that God speaks to us, not merely in sacred and civil history, or even

[5] The abbreviations used to refer to Leibniz's writings are listed in the bibliography at the end of the paper.

[6] See also Leibniz to Johann Georg Graevius, 7 June 1671, where Leibniz refers to Pascal's *Pensées* as "libellum aureolum": "a gold little book" (A I, 1, 155). For further evidence of Leibniz' early acquaintance with Pascal's *Pensées*, see Carraud (1986: 110-2).

in natural history, but also internally, within our mind, through truths which abstract from matter and are eternal. Even if I should confess that these arguments have not been carried to the full force of a complete demonstration, they already seem to have as much force as the moral arguments; and I believe that men will gradually perfect them and that sometime, perhaps, they can be reduced to a rigorous demonstration (L 275).

What Leibniz is referring to in this letter is the realization, to which he had come in the later 1670s, that the ontological argument was not so much wrong as it was incomplete.[7] In fact, the argument tacitly assumes the possibility of God (i.e., of a being whose essence implies its existence), a possibility which in turn needs to be proved. As Leibniz writes in a letter to Oldenburg on 28 December 1675:

Whatever the conclusions which the Scolastics, Valerianus Magnus, Descartes, and others derived from the concept of that being whose essence it is to exist, they remain weak as long as it is not established whether such a being is possible [...]. Assuming that such a being is possible [...] it certainly follows that such a being exists. But we believe that we are thinking of many things (though confusedly) which nevertheless imply a contradiction (L 165-6).

Bringing in concepts which might not be possible because of some hidden contradiction is one of the pitfalls of demonstration, for if something implies a contradiction, then, obviously, whatever we infer from it, we can also infer the opposite (L 231, 292-3, 386; GP VII, 294, 310). Let us assume, as Leibniz does, that from the concept of God it is possible to infer that God exists, i.e., that God, being the most real being (*ens realissimum*), has all (positive) predicates, including existence, and therefore necessarily exists. This does not ensure the existence of God, since the concept of God itself might be inconsistent, i.e., logically impossible. If this were the case, then the nonexistence of God could also be derived (since what is logically inconsistent cannot exist). But, in this case, we would have to reject the very concept of God as *ens realissimum* which provides the premise for the ontological proof.

Thus, the ontological proof of God's existence presupposes that it is established that the concept of God is consistent, i.e., that God is (logically) possible. Leibniz claimed to have provided such a proof,[8] but he does not seem to have

[7] For the development, and a critical discussion, of Leibniz' views on the ontological argument, see Adams (1994, chaps. 5, 6, 8). The references to Leibnizian texts in these chapters are so detailed that no further reference is needed here.

[8] See Leibniz's note of November 1676 (L 167) and his letter (probably) of 1678 to Countess Elisabeth (AG 240).

been much convinced of its success.[9] He came in time to realise that the only way out of the difficulty of carrying the ontological argument "to the full force of a complete demonstration" by proving the possibility of God with "geometrical" or "metaphysical" rigour was to *presume*, that it to say, to assume, God to be possible until it was shown to be impossible.

Leibniz's argument goes as follows. We know for certain that if God is possible, then God exists (this is what the "incomplete" ontological argument proves).[10] As far as our present knowledge is concerned, we cannot prove that God is possible. But, surely, neither can we prove that God is not possible. Since we cannot prove that God is not possible, we should presume that God is possible. But if God is possible, then God exists. Thus, we can conclude that God exists. This, of course, is not a valid deductive argument, for the conclusion that God exists does not follow logically from the conditional "If God is possible, then God exists": it is a conclusion that only holds on the assumption that God is possible, and that can be reversed by a contrary proof, even if we can expect that such a proof will never be provided. As Leibniz writes in a much later text,

> this Argument has the force to shift the burden of proof to the opponent, or to make the opponent responsible for the proof. And as that impossibility [i.e., the impossibility of God] will never be proved, the existence of God ought to be held for true (GP III, 443-4).

What Leibniz is saying in this passage is strictly related to the question about *cui incumbat onus probandi* (who the burden of proof lies with) in deriving a legal conclusion. As a rule, the burden of proof lies with the proponent (according to the old canon *affirmanti incumbit probatio*, A VI, 1, 76), but if in the course of a dispute one of the parties advances something having a presumption for it, then the burden of proof shifts to the other party. It is in this sense that Leibniz credits his presumptive argument with "the force to shift the burden of proof to the opponent". For the proponent arguing for God's existence bears the onus of proving the truth of the conditional at the core of the ontological argument, i.e., that "If God is possible, then God exists". However, she has no onus of proving that God is possible, since there is a presumption in favour of God's possibility. On the other hand, the opponent has not the onus of disproving the conditional "If God is possible, then God exists". But she has the onus of disproving that God is possible (i.e., of proving that God is impossible). And since, as Leibniz urges in the above-quoted passage, God's impossibility

[9] See Leibniz's circumspect assessment of his own contribution in NE 438.

[10] See, e.g., NE 438; L 231, 292-3. Somewhere Leibniz calls this "an identical or indemonstrable axiom" (GP VII, 490).

will never be proved, we must conclude for God's existence. At first, Leibniz maintained that this conclusion, though not demonstrative, "is sufficient for practical matters in life" (AG 238). Later on, he took a more decisive attitude, going so far as to claim that what the presumptive argument yields is, indeed, "a moral demonstrative conclusion", which implies that "in the present state of our knowledge we ought to judge that God exists" (NE 438). Pascal would rather have said that we ought to *bet* that God exists. But Leibniz could have replied that without presuming that God is possible, we not only cannot judge that he exists, but also cannot bet on his existence.

5. *Presumption as a default rule*

Summarizing, then, Leibniz accepted the ontological argument in the form of the following conditional (let us call it the "ontological conditional"):

If God is possible, then God exists

and the issue was to establish that God is possible. As hinted by the above quotation from the letter to Oldenburg of 28 December 1675, Leibniz held a proof-theoretic notion of possibility:

> I call possible that which does not imply a contradiction, and so in this sense it cannot be disproved (Grua 390)

which displays the close connection between possibility, consistency, and provability. For, obviously, if *Q* is consistent (free from contradiction), then it cannot be disproved, or, which is the same, not-*Q* cannot be proved. In the case at hand, to presume that God is possible is thus, in a crucial sense, to assume that it cannot be proved that God is impossible. This allows us to capture Leibniz's presumptive argument by relying on default logic. Following Reiter's (1980) original scheme, a default has the form

$$\frac{\text{Prerequisite: Justification}}{\text{Conclusion}}$$

meaning that if the prerequisite is true, and the justification can be consistently assumed (it is not in contradiction with what has already been accepted), then the conclusion is also to be accepted. According to the typical example

$$\frac{\text{Bird(Tweey): Fly(Tweety)}}{\text{Fly(Tweety)}}$$

which means that if Tweety is a bird (the prerequisite is established), and it cannot be inferred from the given knowledge that it does not fly (the justification is not contradicted by accepted beliefs), we can conclude that Tweety flies. Of course, this conclusion would have to be retracted if it were established that Tweety does not fly (if the justification were to be contradicted), on discovering, for example, that Tweety is a penguin. Let us use the convention of using a single line to separate the premises of a default inference from its conclusion and a double line to mark a conclusive inference based on propositional logic. Under this convention Leibniz's argument can be reconstructed as follows

$$\dfrac{\dfrac{\{\}\text{: God is possible}}{\text{God is possible}} \qquad \text{If God is possible, then God exists}}{\text{God exists.}}$$

This diagram combines two inferential steps. The first step is the defeasible (presumptive) inference to the conclusion that God is possible as long as the justification that God is possible is not disproved (i.e., as long as it is not established that God is impossible). Note that this inference has an empty prerequisite: nothing has to be established to prove the possibility of God (the failure to establish God's impossibility is sufficient). The second step is the deductive inference from God's possibility and the ontological conditional to the conclusion that God exists. The whole inference is presumptive to the extent that if we had proof of the impossibility of God (a proof which someone smarter or better informed could provide), then we would have to retract our belief in God's possibility (as the justification for having this belief would be contradicted), and we would consequently be unable to apply the ontological conditional to infer God's existence. On the other hand, if we had conclusive proof that God is possible, we would not need any presumption. Similarly, if we had conclusive proof that God is impossible, the presumption would be useless since its justification would be conclusively disproved. So what, in the last analysis, justifies our making a presumption is that we have no conclusive proof either of God's possibility or of God's impossibility.

6. *Are Pascal's and Leibniz's arguments persuasive?*

It must be conceded that the two arguments, however much prima facie endowed with considerable rhetorical force, may fail to be persuasive. The critical point in Pascal's Wager[11] is that the crucial argument [3] only works on the

[11] Pascal's wager is one of the most contested arguments in Western philosophy. What follows is

assumption that there is a finite, nonzero probability of winning, i.e., that God exists. Indeed, assigning such a probability to God's existence would seem dictated by no other reason than *P*'s insistence that "you are obliged to play", for, obviously, a zero probability implies that there would be no reason to play. As the editors of the Port Royal edition of the *Pensées* already acknowledged, this being the case, one cannot say much more than that the argument "addresses only a certain kind of persons" (Thirouin 1991: 168), i.e., those rational agents who are willing to consider God's existence as having a nonzero probability.[12] Otherwise, it could be argued that "the peculiarity and strength of the argument is that it […] relies on the difficulty of proving beyond the shadow of any doubt that [God exists] is false and hence that [God does not exist] must be true" (Chimenti 1990: 325). But had this been Pascal's line of argument, Leibniz might have argued that it tacitly assumes that the very notion of God is consistent, for otherwise the probability that such a being exists would, "beyond the shadow of any doubt", be zero. Thus, a rational agent should assign a positive probability to God's existence only on the premise that God is possible. But a reasoner who accepts both this premise and the ontological conditional can conclude for the existence of God without having to bet.

Leibniz's presumptive argument also has faced objections. In his detailed analysis of the argument Richard M. Adams (1994: 206) has placed much emphasis on the "obvious objection" that the rule of presuming that something is possible until it is proved impossible fails to discriminate between conflicting presumptions. In fact, we could consistently assume both that God is possible and that God is not possible, thus inferring both that God exists and that God does not exist. The point, according to Adams, is that either conclusion can be justified by the corresponding presumption, although the two presumptions are mutually inconsistent. Obviously, for Leibniz's argument to succeed there should be a way of "prioritizing" the possibility presumption over its contradictory. But, according to Adams (1994: 206), Leibniz seems to have been unable to provide a satisfactory solution. And this – Pascal could have argued – brings the wager argument back into play.

only a taste of the huge critical literature it has spawned: Clifford (1877); Flew (1960); Cargile (1966); Flew (1976); Nicholl (1978); Mackie (1982); Martin (1983); Duff (1986); Martin (1990); Oppy (1991); Mougin and Sober (1994); Amico (1994); Holcomb (1995); Gustason (1998); Armour-Garb (1999); Carter (2000); Hájek (2000); Saka (2001); Hájek (2003); Wood (2008); Bostrom (2009); Hájek (2012); Ryan (2015). See also several essays in Jordan (1994).

[12] As Rescher (1985) has famously argued, for a committed atheist it would be perfectly rational to assign a zero probability to God's nonexistence.

7. *Did Leibniz have a solution?*

So the issue is: how are we justified in leaping from our inability to establish that God is impossible to the belief that he is possible? In this section we shall argue that Leibniz did indeed have an answer and that, despite Adam's insistence that he was unable to provide "a good reply to the obvious objection to his presumptive argument" (Adams 1994: 206), his was, in principle, a good reply. To flesh out this point we have to go back to Leibniz's early writings in the *Elements of Natural Law* (1671). Here we find Leibniz striving to prove that presumption lies always on the side of possibility.[13] This is how the argument runs:

(1) Nothing is required for *Q* to be possible but that it be supposed.
(2) For *Q* to be impossible it is required that *Q* be supposed together with not-*Q*.

Therefore

(3) It is easier for *Q* to be possible than for it to be impossible.

Steps (1) and (2) stem from Leibniz's conception of what constitutes a "requirement or supposition". In his writings Leibniz speaks very often of a "requirement" as both a necessary causal condition for a thing to exist and a logical or conceptual mark of its definition (C 50, 258, 471-2; Grua 267, 513), and defines as "easy" that which needs fewer requirements in order to come into existence (C 474) or is, by its own definition, more intelligible (A VI, 1, 472; A VI, 2, 567). On this view, in order to conceive of the possibility of *Q*, we need only consider the requirements for the existence of *Q*, whereas in order to conceive of the impossibility of *Q*, we need to consider the requirements of both *Q* and not-*Q* (not-Q being something whose existence is incompatible with the existence of Q). In this sense, "more" is required for *Q* to be impossible than for *Q* to be possible. This proves (3) for, according to Leibniz's usual definition, "that is easier in which less or fewer [things are required] than in the opposite" (A VI, 1, 472; Grua 513, 525, 540; C 474). If we accept Leibniz's notion of easiness (*facilitas*), then we can reformulate Leibniz's argument as follows:

[13] The question at hand concerns the presumption of an act's legitimacy. See Artosi and Sartor (2018), in particular the section "Deontic Logic and the Elements of Natural Law".

(1) It is easier for anything to be possible than for it to be impossible

---

(2) It is easier for God to be possible: God is possible

God is possible If God is possible, then God exists

God exists.

Let us reconsider the Leibnitian inference. The first step is a deductive step. From the general principle according to which it is easier for anything to be possible than impossible, we can conclude, in particular, that it is easier for God to be possible (rather than impossible). The second, defeasible step, applies Leibniz's idea that "anything easier is presumed" (A VI, 2, 567), i.e., that what is easier can be inferred unless its negation is established.[14] In our specific context this means that God's possibility can be inferred unless its impossibility can be established. Rephrasing this idea in the context of default reasoning, we have it that the prerequisite that it is easier for God to be possible (which is obtained through the first inferential step) leads us to conclude that God is possible, so long the negation of the justification, i.e., the impossibility of God, is not established. Since, as argued by Leibniz, the impossibility of God has not yet been established (and indeed it is unlikely to ever be established), we should conclude

[14] As has been observed by Armgardt (2015), in some texts it seems that Leibniz considers easiness to be insufficient to ground presumption. In other texts, on the contrary, easiness appears to *support* presumption. This apparent conflict may possibly be reconciled by considering that, for Leibniz, concept (proposition) A is easier than concept (proposition) B if A has fewer requirements than B. Now, "having fewer requirements" can be understood in two ways, both of which are present in Leibniz's writings. To clarify the distinction, let us assume that concepts (propositions) A and B are incompatible, and that A has the set of prerequisites SA, while B has the set SB (where by "prerequisites" is meant the features that are all required for the concept to be instantiated, or for the corresponding proposition to be true). We can now say that A is easier than B if, and only if, A has fewer prerequires than B, i.e., if the cardinality of SA is inferior to the cardinality of SB. Alternatively, we can adopt the stronger notion that A is easier than B if, and only, is A's prerequisites are a strict subset of the prerequires of B (i.e., if SA is included in SB). Only under this second understanding does easiness ground a (defeasible) presumption: when all the prerequisites for the concept having a smaller set of prerequires are present, we may infer that the concept holds, but this presumption will fail if the additional prerequisites of the incompatible, more specific concept also hold. In other terms, let us assume that SA = {A1,…, An} and SB = {A1,…, An, B1,…, Bm}. Then, given A1,…, An, we can infer A, but this is a mere presumption, since, if B1,…, Bm were to also be established, then we should rather derive B (and exclude A). In particular, with regard to possibility, to presume that an entity is possible, it is sufficient that that the concept of the entity at issue has not been proven to suffer from any internal contradiction (this is the case of the perfect being), but this presumption fails if it is established that the internally consistent concept is incompatible with something which is necessary.

that God is possible. In the third, deductive step, this conclusion, in combination with the ontological conditional, leads us to the conclusion that God exists. It is important to note that this conclusion cannot be challenged by presuming that God is impossible. Indeed, such a line of reasoning is precluded by the fact that God's impossibility, like any impossibility, is less easy than God's possibility. Therefore, we cannot presume that God is impossible. Thus, reliance on the idea of easiness enables Leibniz to avoid Adam's criticism.

Obviously, Leibniz's proof of the existence of God can be subject to further criticisms, such as Kant's famous objection, addressed against the consequent of the ontological conditional, that existence is not a predicate, so that even from the possibility of the concept of God as *ens realissimum* we cannot infer God's existence (Kant 1787/1998: chap. 3, sec. 4, A592/B620). But this, again, is an entirely different story.

8. *Presumption and probability*

Leibniz's approach to reasoning is conveyed by his famous claim that controversies could be solved through calculations:

> if controversies were to arise, there would be no more need of disputation between two philosophers than between two calculators. For it would suffice for them to take their pencils in their hands and to sit down at the abacus, and say to each other (and if they so wish also to a friend called to help): Let us calculate! (GP VII, 200).

However, deduction and calculation are not the only cognitive methods supported by Leibniz. On the contrary, he argues for a broader set of cognitive tools, which also includes those instruments that are needed to approach domains where uncertain premises have to be taken into account. For Leibniz, not only mathematics but also law, a discipline that has to deal with partial proofs of uncertain facts, can provide useful reasoning tools. "[O]ne should admit as certain", he writes,

> that *just as the mathematicians have excelled above the other mortals in the logic, i.e., the art of reason, of the necessary, so too the jurists did in the logic of the contingent.* Hence, we can learn much from their precepts about complete and half-complete proofs, about presumptions, about conjecturing regarding the meanings of the laws, about contracts and wills, about criminal clues (indicia); and about the arguments directing investigations, cheating, intimidation, interrogation under torture, all of which in their lowest, intermediate and highest degrees; and finally about the legal commonplaces of arguments, which complete the Topics with the axioms of law, commonly called maxims. For ultimately, what is a judicial process if not the form of disputing

transferred from the Schools to life, purged of vacuousness and limited by public authority in such a way that it is illicit to wander about or to twist or to omit whatever can be shown to be relevant for the search of truth (Dascal 36).

According to Leibniz, topical patterns of reasoning (which we would now describe as non-deductive or, better yet, nonmonotonic or defeasible) are paramount in the law, being involved in any application of a system of legal rules:

> In such a system every law has a presumption, and applies in any given case, unless it is proved that some impediment or contradiction has emerged, which would generate an exception extracted from another law. But in that case the charge of proof is transferred to the person who adduces the exception (A VI, 4C, 2791).

Leibniz's approach to defeasible/presumptive reasoning is clearly grounded in his acquaintance with the law, which he had to practice extensively throughout his life, as a student, a legal counsellor, and a diplomat. However, he does not confine this method of reasoning to the law: he views it as playing a key role in other domains where uncertainty is pervasive, and disputations may emerge, such as morality (where "most inferences are indeed presumptive") and theology. Leibniz's analyses and exemplifications of defeasible reasoning indeed identify those nondeductive patterns that only in recent decades have been studied in philosophy (Rescher 2006) and formalized in logic and artificial intelligence (Pollock 1989) and, in particular, in the logical analysis of legal arguments (Prakken and Sartor 2015).

We know that Leibniz admired Pascal's work on the mathematics of probability and was in contact with other pioneers of probability calculus, such as Jakob Bernoulli (see Schneider 1984). So, we may wonder what view he had of the connection between the legal tradition of presumptive reasoning and the new probability calculus. Did he view the two as alternative and incompatible approaches – as we may be led to think if we contrast Pascal and Leibniz's theological proofs – or did he rather believe in the possibility of combining and integrating them? To be sure, though he was aware of the developments being undertaken, Leibniz never devoted himself to providing a formal model of probabilistic reasoning. The only attempt in this direction is found in his *De conditionibus*, published in 1665, when he only was nineteen. Here Leibniz discusses the attribution of different degrees of probability to propositions conditioning the conferral of legal rights. He observes that when a contract includes a conditional clause (e.g., if the ship arrives, I will pay you), three cases are possible, depending on whether (1) the condition in impossible, in which case the right is void (*jus nullum*); (2) the condition is necessary, in which case the right is pure (*jus purum*), and (3) the condition is contingent (uncertain), in which case the right is conditional. Leibniz also uses the numbers 1 and 0 for necessity and impossibility, respectively, and argues that the uncertain cases could be captured by fractions between 1 and 0, these fractions expressing the right's "degree of proof" or "degree of probability" (Hacking 1975: 206-8).

As far as we know, the idea of assigning a probability measure to legal propositions was not further developed in Leibniz's writings; and, notably, his *Dissertation on the art of Combinations* (1666) contains no reference to the possible link between combinatorics and probability. In fact, the notion of probability that he would have conceptualized in his writings had different sources and motivations than the emerging mathematics of probability based on combinatorics. As Hacking (1975: chaps. 10 and 15; cf. Artosi 1988) has shown, Leibniz's aim was to formulate a concept of probability appropriate to his plan for a general theory of non-deductive inference – a "logic of the contingent", as he himself would have put it – comparable in rigour to the theory of demonstrative inference. It is by reference to *this* concept of probability that we should ask about the connection between presumption and probability. Unfortunately, Leibniz's meditations in the matter seem to have been rather sketchy and wavering. Sometimes, we find him speaking of presumption as strictly related to the doctrine of probability or, at least, as expressing some probabilistic notion (NE 446; see also A VI, 1, 426; G 742, 785). Other times, he strives to sharply distinguish presumption from probability (see, e.g., A VI, 1, 472). In the final analysis, we would like to argue that his mature view was expressed in a well-known passage of his 1696 letter to Gabriel Wagner, in which he presents presumption and probability as two distinct, but closely related, branches of the same logic. Having expounded his views about demonstrative logic, Leibniz writes:

> Thus the form of disputation has been shown to be necessary in necessary matters where eternal truths occur but not in contingent matters where the most probable must be chosen. In this case two further problems arise. The first concerns presumption, that is, when and how one has the right to shift the demonstration from one's self to someone else; the second concerns the degrees of probability, how to weight and evaluate considerations which do not constitute a perfect demonstration but run counter to each other (L 467).

9. *Conclusion*

To sum up, faced with the troubling question of God's existence, Pascal and Leibniz adopted two quite different attitudes: Pascal framed his argument in terms of *acting as if* God existed; Leibniz sought to substantiate the *belief that* God exists. This points once more to a significant contrast between the two thinkers. To be sure, Leibniz was "a rationalist about belief" (Hacking 1972: 191) who sharply separated epistemic and practical reasoning. As he would write in a 1677 draft on the obligation to believe: "To believe is to be conscious of reasons that persuade us" (Dascal 44),[15] such that a belief cannot be rationally supported by a merely practical choice. As he will remark in a letter of the next year to the Duke Johann Friedrich, an argument relying on such a choice[16]

> only proves that even those who believe neither in God nor in the immortal soul, should act as if they did, while they cannot demonstrate that neither exist (A I, 2, 112).

Pascal would have agreed, but he would have argued that in the end living as a believer could – causally, even if not epistemically – lead "those who believe neither in God nor in the immortal soul" to believe.

Alberto Artosi
University of Bologna
alberto.artosi@unibo.it

Giovanni Sartor
University of Bologna
giovanni.sartor@unibo.it

References

1. Primary sources

Leibniz, Gottfried Wilhelm (A), 1923, *Sämtliche Schriften und Briefe*, ed. by Deutschen Akad. der Wiss. zu Reichl, Berlin, Darmstadtreprinted Hildesheim, Olms, 1972, (cited by series, volume, page).

—(AG), 1989, *Philosophical Essays*, ed. and trans. by Roger Ariew and Daniel Garber, Indianapolis: Hackett.

—(C), 1903, *Opuscules et fragments inédits de Leibniz*, ed. by Louis Couturat, Alcan, Paris, (reprinted Hildesheim: Olms, 1965).

—(Dascal), 2008, *The Art of Conjecturing*, ed. By Marcelo Dascal, Science+Business Media, Springer.

—(GP), 1875-90, *Die philosophischen Schriften von Gottfried Wilhelm Leibniz*, ed. by C.I. Gerhardt, 7 vols, Weidmann, Berlin, (reprinted Hildesheim: Olms, 1965).

[15] From this Leibniz concludes that "There is no obligation to believe. For to be conscious of reasons is not in our power" (*ibid.*).

[16] Here Leibniz does not refer directly to Pascal's argument, but to the version of it appeared in Port Royal's *Logic* (1st ed. 1662).

—(Grua), 1948, *Textes inédits d'après les manuscrits de la Bibliothèque provinciale de Hanovre*, ed. by Gaston Grua, Presses Universitaires de France, Paris (reprinted New York: Garland, 1985).

—(L), 1976, *Philosophical Papers and Letters*, ed. and trans. by Leroy E. Loemker, 2nd ed., Dordrecht: Reidel.

—(NE), 1996, *New Essays on Human Understanding*, ed. and trans. by Peter Remnant and Jonathan Bennet, Cambridge University Press, Cambridge.

Pascal, Blaise, 1670/1999, *Pensées and Other Writings*, trans. by Honor Levi; ed. with an introduction and notes by Anthony Levi, Oxford University Press, Oxford.

Voltaire, 1733-34/2007, *Philosophical letters, or, Letters regarding the English nation*, ed., with an introduction by John Leigh; trans. by Prudence L. Steiner, Hackett Publishing Company, Indianapolis/Cambridge.

2. Studies

Adams, Richard M., 1994, *Leibniz: Determinist, Theist, Idealist*, Oxford University Press, New York.

Amico, Robert, 1994, "Pascal's Wager Revisited", in *Internaional Studies in Philosophy*, 26 (1994): 1-11.

Armgardt, Matthias, 2015, "Presumptions and Conjectures in Leibniz's Legal Theory", in Matthias Armgardt, Patrice Canivez and Sandrine Chassagnard-Pinet, eds., *Past and Present Interactions in Legal Reasoning and Logic*, Springer, Cham: 51-69.

Armour-Garb, Bradley, 1999, "Betting on God", in *Religious Studies*, 35: 119-38.

Artosi, Alberto, 1988, "Leibniz e la logica induttiva", in *Annali dell'Università di Ferrara*, Nuova Serie, Sezione III, Filosofia, Discussion Paper, n. 4.

Artosi, Alberto and Sartor, Giovanni, 2018, "Leibniz as Jurists", in Maria Rosa Antognazza, ed., *Oxford Handbook of Leibniz*, Oxford University Press, New York: 641-63.

Bostrom, Nick, 2009, "Pascal's Mugging", in *Analysis*, 69: 443-5.

Cargile, James, 1966, "Pascal's Wager", in *Philosophy*, 35: 250-57.

Carraud, Vincent, 1986, "Leibniz lecteur de Pascal", in *XVIIe siécle*, 38: 107-24.

—, 1991, "Le refus pascalien des preuves métaphysiques de l'existence de dieu", in *Revue des Sciences philosophiques et théologiques*, 75: 19-45.

Carter, Alan, 2000, "On Pascal's Wager, or Why All Bets Are Off", in *Philosophical Quarterly*, 50: 22-7.

Chimenti, Frank A., 1990, "Pascal's Wager: A Decision-Theoretic Approach", in *Mathematics Magazine*, 63: 321-5.

Clifford, William Kingdon, 1877, "The Ethics of Belief", in Timoty Madigan, ed., *The Ethics of Belief and Other Essays*, Prometheus, Amherst, MA: 70-96.

Duff, Antony, 1986, "Pascal's Wager and Infinite Utilities", in *Analysis*, 46: 107-9.

Flew, Antony, 1960, "Is Pascal's Wager the Only Safe Bet?", in *The Rationalist Annual*, 7: 21-25.

—, 1976, *The Presumption of Atheism and Other Philosophical Essays on God, Freedom and Immortality*, New York, Harper & Row.

Gustason, William, 1998, "Pascal's Wager and Competing Faiths", in *International Journal for Philosophy of Religion*, 44: 31-9.

Hacking, Ian, 1972, "The Logic of Pascal's Wager", in *American Philosophical Quarterly*, 9: 186-92.

—, 1975, *The Emergence of Probability*, Cambridge University Press, Cambridge: 2nd ed. 2006 [e-book].

Hájek, Alan, 2000, "Objecting Vaguely to Pascal's Wager", in *Philosophical Studies*, 98: 1-16.

—, 2003, "Waging War on Pascal's Wager", in *Philosophical Review*, 112: 27-56.

—, 2012, "Blaise and Bayes", in Jake Chandler and Victoria S. Harrison, eds., *Probability in the Philosophy of Religion*, Oxford University Press, Oxford: 167-86.

—, 2018, "Pascal's Wager", in *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta, ed., <https://plato.stanford.edu/archives/sum2018/entries/pascal-wager/>.

Holcomb, Harmon, 1995, "To Bet the Impossible Bet", in *International Journal for Philosophy of Religion*, 35: 65-79.

Jordan, Jeff, ed., 1994, *Gambling on God. Essays on Pascal's Wager*, Rowman & Littlefield, Lanham, MD.

Kant, Immanuel, 1787/1998, *Critique of Pure Reason*, Cambridge University Press, Cambridge.

Luce, Duncan and Raiffa, Howard, 1957, *Games and Decisions*, John Wiley & Sons, New York.

Mackie, John Leslie, 1982, *The Miracle of Theism*, Oxford University Press, Oxford.

Martin, Michael, 1983, "Pascal's Wager as an Argument for Not Believing in God", in *Religious Studies*, 19: 57-64.

—, 1990, *Atheism: A Philosophical Justification*, Temple University Press, Philadelphia.

Mougin, Gregory and Sober, Elliott, 1994, "Betting against Pascal's Wager", in *Noûs*, 28: 382-95.

Nicholl, Larimore, 1978, "Pascal's Wager: The Bet Is Off", in *Philosophy and Phenomenological Research*, 39: 274-80.

Oppy, Graham, 1991, "On Rescher on Pascal's Wager", in *International Journal for Philosophy of Religion*, 30: 159-68.

Pollock, John L., 1989, *How to Build a Person: A Prolegomenon*, Cambridge University Press, Cambridge.

Prakken, Henry, and Sartor, Giovanni, 2015, "Law and logic: A review from an argumentation perspective", in *Artificial Intelligence* 227: 214-45.

Reiter, Raymond, 1980, "A Logic for Default Reasoning", in *Artificial Intelligence*, 13: 81-132. (Reprinted in Matthew L. Ginsberg (ed.), *Readings in Nonmonotonic Reasoning*, Los Altos: Morgan Kaufmann, 1987: 68-93).

Rescher, Nicholas, 1985, *Pascal's Wager*, University of Notre Dame Press, Notre Dame.

—, 2006, *Presumption and the Practices of Tentative Cognition*, Cambridge University Press, Cambridge.

Ryan, Sharon, 2015, “In Defense of Moral Evidentialism”, in *Logos and Episteme*, 6: 405-27.

Saka, Paul, 2001, “Pascal’s Wager and the Many Gods Objection”, in *Religious Studies*, 37: 321-41.

Schneider, Ivo, 1984, “The role of Leibniz and Jakob Bernoulli for the development of probability theory”, in *LLULL*, 7: 69-89.

Thirouin, Laurent, 1991, *Le hasard e le règles: le modèle du jeu dans la pensée de Pascal*, Paris: Vrin.

Wood, Allen, 2008, “The Duty to Believe according to the Evidence”, in *International Journal for Philosophy of Religion*, 63: 7-24.

Past Present

The birth of habits

Victor Egger

Victor Egger: habit, repetition, and the unconscious

Marco Piazza, Sofia Sandreschi de Robertis[1]

1. *The life of consciousness*

Victor Egger (1848-1909) was a multifaceted, original thinker and a member of the French intellectual scene at the turn of the twentieth century. At the end of the nineteenth century, when teaching at the Sorbonne, he enjoyed a certain degree of fame. His works were read and in some cases even quoted by such notable figures as William James (1890), Sigmund Freud (1995), Henri Bergson (Roni 2016), and Ferdinand de Saussure (Joseph 2010; 2012: 288-291). Following his death, however, he was suddenly forgotten (Roni 2019: 10).

The nature of Egger's work was certainly peculiar. He wrote about thirty articles and short essays and made available the transcriptions of his university lectures (covering the period from 1900 to 1909), but he published only one book, *La parole intérieure* [*Inner Speech*], which coincided with his doctoral thesis (Egger 1881). It is above all because of the original and partly controversial theses contained in that book that Egger has once again begun to be cited and remembered in recent works, including in the field of psycholinguistics (see for example Lukatela *et al.* 2004).

Not only his means of expression but also his training and his own thinking show that his was a path that was not entirely ordinary. After graduating in philosophy, he pursued a doctorate in literature under the supervision of Paul Janet. It was during this period that he became interested in studying psychology and physiology. Taking an approach that we would today call "interdisciplinary", Egger dedicated himself to a central object of investigation: human interiority, in relation to which he explored such apparently diverse themes as language, time, memory, dreams, death and, last but not least, habit (Roni 2019: 13-14).

[1] Paragraphs 1 and 2 have to be ascribed to Marco Piazza, whereas 3 and 4 to Sofia Sandreschi de Robertis.

philinq X, 2-2022, pp. 241-254
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.430

Cognisant of the most recent developments in psychopathology and physiology, Egger never completely detached himself from his spiritualist philosophical training. He had been a pupil of Albert Lemoine at the École Normale Supérieure in Paris (as well as being a student of Lachelier, Boutroux and the neo-Kantian Renouvier, among others), where he graduated in 1872 before a commission presided by perhaps the most famous of all spiritualist thinkers, Félix Ravaisson. It was precisely this training that led him to move away from an exclusively scientific-experimental method based solely on the results of physiology and psychometry, preferring a descriptive type of psychology based on introspection and "inner sense" (Delbos 2010).

The son of a Hellenist, Émile Egger (1813-1885), and the maternal grandson of another well-known Hellenist, Félix Désiré Dehèque (1793-1870), Egger, like Ravaisson, was keenly familiar with ancient sources and Greek philosophy. During his academic career, which started in 1877, he taught at the Faculty of Letters in Bordeaux and in Nancy. He then won a position as a lecturer at the Sorbonne in 1893 – beating competitors such as Bergson and Lévy-Bruhl – where he went on to obtain a tenured position as Professor of Philosophy and Psychology in 1904. Over more than thirty years of university teaching, Egger taught courses in general philosophy, the history of Greek philosophy, modern French, German and English philosophy, general psychology, logic, ethics and morals, metaphysics, sociology, and Greek, Latin, French, German and English literature (Roni 2019: 16).

Egger is considered the first theorist of the "interior monologue", anticipating Édourard Dujardin, whom James Joyce acknowledged as a direct source (Santone 1998). In his doctoral thesis, after providing an introductory historical reconstruction of the (to his mind undertheorised) phenomenon of inner speech from Plato to his contemporaries, Egger insists on the moral implications of interior language (Egger 1881: 5-6). The latter, in fact, "directs and prepares our relations with our peers" and corresponds to that "secret voice that constantly formulates our conceptions and judgements in the form of words" (6). What Wittgenstein would later call a "private language" (1953) represented, on Egger's view, the instrument par excellence for accessing not only the dimension of consciousness and depth but also, in the passage from the monologuing ego to the dialogic we, intersubjectivity. The inner monologue is therefore not a withdrawal of consciousness into itself, according to the Augustinian *topos*, but, on the contrary, a social practice based on the virtual presence of the dialoguing interlocutors (Roni 2019: 17). Moreover, the intersubjective dialogical dimension is both explained and presupposed by the interior monologue, which is based on a processual structure that traces back to the earliest stages of child development, as Vygotsky would later clarify in his *Thought and Language*, referring to unspecified "French authors", among whom Egger should certainly be included (2012: 238).

If we consider the intersubjective nature of Egger's theory of the interior monologue in relation to the historical-political framework in which it was developed – that of Restoration France – it becomes clear that it concerns not only the representation of the self to oneself but also, essentially, the representation of the self to others. It thus involves a request for social recognition which, *ipso facto*, also assumes a political value. In other words, the intrinsically dialogical dimension of the interior word refers to a process of individual identity formation that, while it cannot be separated from the historical-social process of collective identity formation, also cannot be reduced to these processes. The autonomy of individual conscience is thus safeguarded, but at the same time conscience is necessarily connected to a spectrum of shared, liberal values, in accordance with the progressive Catholicism professed by the author (Roni 2019: 18-19).

Egger's theory, and his philosophical reflections in general, rest on a practical conception of reflection that draws on classicism and opposes *otium* to *negotium*. The most obvious model for this is provided by Aristotle's *theoria*, understood as an expression of the contemplative life and as superior to the active life. In other words, the interior monologue is the equivalent of a *sui generis* temporal dimension, whose medium is the peculiar duration of interiority – as opposed to the duration of social events, which are marked by the ticking of the clock and move at a speed comparable to the events depicted in film (Egger 1881: 113).

Even when Egger deals with the theme of habit, he tends to distinguish between the sphere of facts [*faits*] that are external to consciousness and that of facts that are internal to it. His reflections focus on the latter, introducing original elements that build on the premises provided by one of his masters, Albert Lemoine. Together with another of Lemoine's pupils, Élie Rabier, he edited the posthumous edition of Lemoine's *L'habitude et l'instinct* (1875), which brought together two of Lemoine's texts, the first of which was devoted to habit and originally presented in the form of a memoir to the Académie des Sciences Morales et Politiques in Paris in 1869, published in a journal the following year (Lemoine 1870).

In *L'habitude et l'instinct*, Lemoine had made two main moves in relation to Ravaisson's and Comte's theories of habit: he had followed the former, against the latter, in limiting the phenomenon of habit to the organic world and denying its presence in the inorganic; and he had followed the latter, against the former, in reconciling habit with the theory of evolution. This limitation of habit to the sphere of the organic was based on the dynamic conception of habit that

Lemoine shared with Ravaisson. Following Aristotle, Ravaisson had conceived of habit as a disposition acquired through movement (2008). Since inorganic entities are indifferent to movement and lack a spontaneous impetus, for both Lemoine and Ravaisson they are incompatible with the acquisition of habits. Lemoine's openness to evolutionism is part of a similar perspective that is open to transformation and oriented towards reconciling spiritualistic elements and materialistic ones. According to Lemoine, there are certain habits that living creatures cannot acquire due to the conditions of their survival (e.g. animals with lungs cannot be habituated to living in airless environments). However, a given species can change over time, generation after generation, acquiring new habits that favour its development (Piazza 2015: 178-180).

Habit, for Lemoine, is therefore not fixed but variable and relative. Above all, however – and this is perhaps the most original theoretical core of his conception – it is habit that gives rise to repetition, not the other way around: "a first movement is enough to create the germ of a habit" (Lemoine 1875: 5). Thus, habit consists in the power of repetition rather than its result. Moreover, it does not so much correspond to a principle of action as to an ease that originates from an initial voluntary act. The will modifies the instinct and allows the body to learn a movement in a fluid manner that is consistent with its purpose. The moment the modification is learned, nature is modified. Contrary to Ravaisson, for Lemoine there are no habits of the will, since where there is habit there is no will. With that said, although we cannot speak of self-renouncement on the part of the will, we can speak of a "permissive will" in relation to habit – a will which is capable of taking control of the movement at any time, thus replacing habit (56).

2. *Habit and repetition*

Egger presents his philosophy of habit in the essay *La naissance des habitudes* [*The Birth of Habits*] of 1880, the English translation of which is provided here for the first time. Here, Egger takes up Lemoine's thesis that repetition is born of habit. If a single act is sufficient to produce a habit, the latter is endowed with a power that is presupposed by repetition, not *vice versa*. According to Lemoine, habit is born in a contraction of the past that anticipates the future, and from this point of view he is in line with the views of his famous teacher, Félix Ravaisson. He therefore seems also to be in line with Ravaisson, as well as Aristotle, who defined *héxis* as an acquired disposition that is a tendency or inclination (Rodrigo 2011).

There is, however, a fundamental difference between Lemoine and Aristotle. Habit, for Lemoine, is the "daughter of the first act", whereas for Aristotle *héxis* is the result of repetition and exercise, i.e. a process of habituation referred to by the term *éthos* (Lockwood 2013). Precisely for this reason, Egger claims that Lemoine corrected Aristotle on a fundamental point, showing that a single act is sufficient to determine a habit. As Léon Dumont also noted in his groundbreaking article *De l'habitude* (1876), however, Aristotle himself states in his treatise on *Memory and recollection* (1906) that in certain cases a single act is sufficient to create a *héxis*: "When we reacquire the knowledge or perception or whatever it was, the acquired disposition [*héxin*] of which we called memory, here and now we have recollection of any of these. [...] It so happens that some people become more accustomed [*éthisthénai*] from a single act than others in whom the sequence has frequently taken place, and hence, in some instances, after seeing the things once, we remember them better than others who have seen them frequently" (*De mem.* 2, 451b 2-6, 14-16; Eng. tr. 1906: 109-111).[2]

It is necessary to distinguish between the theory of *héxeis* presented by Aristotle, above all in his moral works, and the decidedly less organic theory contained in his other works. According to the former, the acquisition of the moral virtues occurs through exercise and repetition, forming dispositions that are difficult to change once they have been acquired: this is the so-called theory of the unidirectionality of habits, which can guarantee a certain degree of freedom to the individual regarding the specific mode of his or her conduct, which is, moreover, unidirectionally conditioned by the possession of a certain moral *héxis* (Chiaradonna, Farina 2020). This margin of freedom prevents us from concluding that the possession of a specific moral disposition necessarily produces certain courses of action. If this were the case, people would be transformed into automatons, and their actions into mechanical responses devoid of all ethical relevance. According to the theory set out in Aristotle's ethical works, exercise and repetition are also fundamental to the acquisition of other types of *héxeis*: technical dispositions and practical skills (*Eth. Nic.* VI, 4, 1140a 10).

Something different can be found in other of Aristotle's works, however, in particular the treatise on *Memory and Recollection* (1906). Here, Aristotle suggests that a peculiarity emerges in the process of acquiring dispositions linked to perceptual data that can be circumscribed to a single impression. The distinction seems to pass between the world of action and that of the imagination. In other words, in order to act, I must have acquired certain skills and developed certain inclinations, whereas in order to fix an impression in my mind, which I will then be able to recall if necessary without effort, having stored it in my memory, I do not necessarily need exercise and repetition (Piazza 2021: 82-83). But this may apply to some individuals and not to others. What is nec-

[2] Translation slightly modified by the author.

essary is a certain natural predisposition to such a rapid acquisition, which is not a universal character but which seems to bear some similarity to the innate predispositions to certain moral virtues, which for Aristotle are not configured as virtuous dispositions precisely because they do not depend on our will and are not based on exercise, i.e. on a voluntarily exercised commitment (Morel 1997: 135).

Neither Lemoine nor Dumont is concerned with clarifying the question in relation to Aristotelian texts, since they intend to undercut the thesis, so successful for centuries, according to which habit is born from repetition. Egger, committing himself to defending the master's theory, introduces a variation that to some extent restores the Aristotelian doctrine. In fact, according to Egger, habit is to be traced back to the sphere of unconscious phenomena. Therefore, through the distinction between the sphere "of external actions" and the sphere "of purely internal facts", i.e. those acts or events that are not constitutively associated with muscular movements, he defines the field of validity of Lemoine's doctrine. In the former, a habit "very rarely" arises from a single act; in the latter, this happens much more frequently (*infra*, p. 257). According to Egger, a habit is "a power" or "a virtuality" which, according to its greater or lesser force, can manifest itself to consciousness through the corresponding action (*infra*, p. 256). In some cases, a single "fact" [*fait*], i.e. a single event, can determine in us "a tendency to its reproduction"; in other cases, this tendency is too weak to "produce a second act", at least "under the normal conditions of psychic life" (*infra*, *ibidem*). This is because the greater the attention given to the first act, the greater the likelihood of an "unconscious tendency" to repeat it, i.e. the habit itself (*infra*, p. 261).

Egger, like Lemoine and Dumont, does not mention the passage from Aristotle that would partly bring the latter closer to Lemoine. Yet some of his examples of "purely internal phenomena" suggest that he had knowledge of Aristotle's doctrine of memory and recollection. Indeed, Egger here refers to those repetitions that are "commonly called *facts of memory*", adding that "no one is surprised to remember for the first time what he has not seen or heard but once" (*infra*, p. 262). Among the facts of memory Egger includes not only "memories" but also "remembrances" (as well as "idées fixes", i.e. recollections that arise "too frequently", for which he also uses the term *habitudes*, here intended in a less technical meaning). Reminiscences are remarkable examples of the "power of the first act" (*infra*, *ibidem*). Egger derives an interesting theory from them, which would seem to be a gloss on both Aristotle and Ravaisson: "a being capable of habit is a being whose act has an effect on the power to act – or, in other words, on nature, – by disposing it to repeat it, i.e. by making determinate what was originally indeterminate in the same power" (*infra*, p. 263).

This is a perspective that would be revisited by Chevalier fifty years or so later, when, believing he could resolve the "question so often debated as to whether habit is formed by the first act or results from repetition", he summarised what had been sustained by the long tradition to which Lemoine, Dumont and Egger had made a decisive contribution: "the assumption of an habituation [*accoutumance*], born of repetition, prepares or strengthens the habit [*habitude*], but the habit itself is formed at once and results from the first act" (Chevalier 1929: 208-209).

3. *The slip of the tongue [lapsus] as the first act*

Although Egger presents Lemoine's thesis as a correction of Aristotle's theory, he actually takes it as a starting point for developing his own argument. Veiledly reproaching his teacher for not having offered "precise cases" (*infra*, p. 257) to support the new theory, he rhetorically uses this failure to motivate his essay. According to Egger, in order to investigate the problem of habit, it is necessary to take into account certain concrete facts. Habit is a dual phenomenon, both psychic and physical. There are exclusively muscular habits, purely psychic habits – such as "knowing" and "remembering" (*infra*, p. 262) – and finally, habits of a psychic nature which also involve muscular activity. The latter have the specific merit of making something that belongs to the interior perceptible from the outside and therefore allow for a more precise analysis of the phenomenon of habit. From this point of view, Egger is perfectly in line with a positivist approach, but he is convinced of the usefulness of introspection (Bianco 2018). For this reason, he favours as examples those facts of habit that are experienced personally and that are easily recognisable in everyday behaviour.

The last part of the essay is devoted to the study of habit in relation to purely psychic events such as memory. In fact, Egger is convinced that such events provide countless examples of the power of the first act. However, Egger's true originality lies in the type of example he uses to illustrate the birth of "mixed" habits – those that are both psychic and physical. Long before Freud, he undertook a particular case study of slips of the tongue [*lapsus*] – a phenomenon we have all experienced and which is closely related to habit. This choice was certainly well thought out, since such slips immediately draw attention to the sphere of the psychic and the unconscious. In fact, Freud himself (1995) claimed that lapses often occur in conjunction with the expression of preconscious thoughts. According to Egger, habit is "a tendency, a power, a virtuality" (*infra*, p. 256) which in itself remains hidden from our consciousness; it only reveals itself in the right conditions, and only through its own act. Habits arise precisely in this interstitial space, somewhere between the unconscious and the conscious. In this context, what Egger calls “the property of the first act” (*infra*, p. 259) becomes fundamental. There are two types of slip, but only one corresponds to the birth of a new habit: “some consist in the substitution of one word for another and resemble a solecism; others consist in the introduction, into a correct sentence, of a word that is unknown to the language, that is to say, a true barbarism. When we say or when we write one word of our language in place of another, we repeat a word out of order instead of repeating the only word that, at that point in the discourse, would be appropriate: we follow one habit in place of another, and thus the spirit does not innovate. It innovates, on the contrary, when we replace the word required by the sense of the discourse with one devoid of sense, a barbarism” (*infra*, pp. 257-258).

The first kind of slip, which consists in the simple substitution of one word for another, does not produce anything new, since it simply replaces (by mistake) a linguistic habit that would have been appropriate in the context of the sentence. By contrast, the second kind of slip derives from the introduction of an unknown word into a sentence and therefore generates a new habit.

Egger draws a highly representative example of the latter from his own experience. One day, he was giving a lecture at the Lycée d’Angers, and his speech required him to repeat the words “habit” and “volition” several times. At a certain point, he happened to say “habition” by mistake. When he realised his mistake, he immediately corrected himself. Nevertheless, he found himself unwittingly repeating the invented term “habition” again (*infra*, p. 258).

With this example, Egger believes he provides clear proof of the “power of habit […] which resides in a single act” (*infra*, *ibidem*). Indeed, the first appearance of barbarism [*habition*] already possesses the force necessary to generate a habit, without any repetition being required. On the contrary, repetition coincides with the result of the force of habit. It must be remembered, however, that the attention paid to the slip and the reflection that follows it contribute fundamentally to the formation of a genuine new habit. In fact, the less a slip is noticed, the more likely it is that the normal regime of habits will remain indifferent to this small deviation and thus remain unchanged. If, on the other hand, an act gets our attention, the possibility of its being reproduced increases considerably. Attention stimulates mental effort directed towards avoiding the repetition of the same mistake, but the effect is actually quite the opposite. As Egger writes: “It attracted our attention; we noticed it and then rejected it; we thereby imprudently elevated its importance, and when our attention left it, it left behind it a much stronger tendency than had we ignored it. Thus repetition was fostered by the mental effort which was intended to defend us from it” (*infra*, p. 259). The error one wishes to avoid becomes an object of reflection for the spirit, and the seed of habit contained within it has the opportunity to grow and strengthen itself within one's consciousness, rightfully becoming part of a "web of facts of consciousness" (*infra*, p. 266), i.e. the normal interweaving of acquired habits.

By introducing the role of attention and reflection in habit, Egger engages in dialogue with a tradition launched almost eighty years earlier by Maine de Biran. As Roni (2019) points out, Egger's familiarity with Biran is documented not only in the quotations contained in his works but also in his own university lectures. This tradition generally states that habitual acts seem to require less effort, both physical and mental, than other acts. Such fluidity of action therefore coincides with a decrease in conscious attention. For Maine de Biran, for example, habitual acts become almost automatic, thus escaping the control of the will: "it is thus, therefore, and by cloaking our motor activity in the extreme facility of its products, that habit effaces the line of demarcation between voluntary and involuntary acts" (1929: 104).

However, it is important to remember that Egger's focus is not the characteristics of already-rooted habits but rather the ways in which new habits are established. From this point of view, the conception of the slip as the birth of a habit seems to follow those "anomalous products" (137) that Maine de Biran attributes to the spontaneous activity of the brain. According to Biran, regardless of any previous determination, the brain can in certain cases produce completely new images. These images often disappear as soon as the individual returns to his or her normal habits – an eventuality that Egger associates with the first type of slip, which corresponds to a simple linguistic substitution. In other cases, abnormal products of the brain can be transformed into new and persistent habits. Maine de Biran identifies three possible explanations for this, one of which is attention: "It seems, therefore, that if the spontaneous activity of the cerebral organ sometimes furnishes a sort of raw material for fantastic images, it is the continual preoccupation, the attention at first voluntary which the individual has been able to give them, it is particularly their association with external, familiar objects, which furnish them frequently with the opportunity of being reproduced" (139).

On the other hand, the importance of attention as a function of the reproduction of a certain impression, image or habit is not only found in the philosophical tradition preceding Egger but a central theme in the psychology of his time. We need only think of Taine, who, in his *De l'intelligence* (1870) (published only ten years before Egger's article), underscores the decisive influence that a certain degree of attention can have on the functioning of memory. In nineteenth-century France, memory was a field of investigation that was often almost indistinguishable from habit, and in this article Egger himself analyses the phenomenon of reminiscence in relation to habit. Thus, whether it is specifically about memory or more generally about habit, philosophy and psychology agree on this point. Both images and actions possess their own initial intensity, which makes their subsequent reproduction possible. Of all the events that populate the psyche, however, those that enjoy a greater degree of attention when they first occur are most likely to impose themselves on the others.

4. *The twentieth century: courses on habit at the Sorbonne*

Having published *The Birth of Habits* at the end of the century, Egger was the bearer of French reflection on habit, the roots of which lie in the thought of the *Idéologues*. In his short text, some of the main points of the nineteenth-century history of the concept emerge, even if only tangentially. He both makes explicit the debt that binds him to Lemoine and maintains more concealed resonances, however traceable, with other authors. It is enough to think of the distinction between the physical and the bodily, which, in the facts of habit, have a clearly Biranian flavour (Maine de Biran 1929), or of the use of the terms "tendency" and "inclination", which, as we have seen, undoubtedly evoke the Ravaissonian definition of habit (Ravaisson 2008). Yet Egger's short essay does not limit itself to bringing together elements of his predecessors' theories. *The Birth of Habits* certainly has its own originality, likely due to Egger's more modern conception of the conscious and the unconscious, which he uses to outline the birth of a new habit. For example, we know that Egger, who was interested in the problem of the division of states of consciousness, closely followed the well-known case of Félida. On this occasion, for example, he invited Étienne Azam, the young woman's doctor, to observe a possible relationship between the acquired habits and the two different states of consciousness of the patient (Bizub 2006: 49).

After 1880, Egger continued to work on habit, although he did not dedicate any further publications to it. The results of the continuation of his work became the subject of a series of lectures at the Sorbonne; in particular, we have access to the transcripts of two university courses held by Egger in 1901 and 1905, which appeared in the *Revue hebdomadaire des cours et de conférences*.

In 1880, Egger had been concentrating on a specific aspect of the question, namely the nature of the movements that regulate the alternation of new and old habits. He had therefore postponed reflection on any further topics, such as the general characteristics of habit and its effects. More than twenty years later, Egger's thought on habit had become much more refined and precise.

First, the Aristotelian-Ravaissonian influence, as it were, was much stronger than Lemoine's. In the lectures of 1905, in fact, we read that habit is nothing more than the symbol of a possibility. The problem of repetition also becomes more specific: it is no longer a question of establishing the precedence of habit vis-à-vis repetition but of understanding the relationship between them.

Habit is here defined as “a power of repetition” (Egger 1905: 512),[3] which requires an occasion in order to become actual. The theme of the occasion, already present in the 1880 article (even if only incidentally), takes on a decisive importance. Egger now distinguishes between *conditions* and *occasions* of the occurrence of a habit (359-360). Occasions, closely linked to the associative process, are external but essential to the recurrence of a habitual act. Conditions, by contrast, refer to an internal logic: the condition of the habitual fact is habit itself, as the power of unconscious repetition rooted in the first act: “The first act and, subsequently, similar past acts leave behind them an unconscious power of repetition, which manifests itself only when it passes into the act, only when it does or contributes to doing a new but repeated act” (360).

In the lectures, there is also a precise division of habits into four categories: positive and negative, on the one hand, and general and special, on the other. None of this is found in the 1880 article, but the first pair of categories had already been developed by Egger in his only monograph, *La parole intérieure* (1881). This came about as a correction of Maine de Biran’s theory, which divided habits into passive and active. André Lalande also reports this in the *Habitude* entry of his famous *Vocabulaire technique et critique de la philosophie* (1997), even if he expresses a certain perplexity. In fact, referring to Egger’s proposal, Lalande cautiously suggests that he makes his claims “perhaps wrongly” (395). Moreover, discussing Biran’s phrase “general habit”, Lalande underscores the extent to which “general” and “special” are not opposed for Biran, as they are for Egger (397).

According to the lectures of 1905, negative habits represent those acts that are carried out without attention and therefore without consciousness. Positive habits, on the other hand, are simply the same acts, although corrected by mental effort and attention.[4] This does not mean that mental effort and attention must intervene fully; otherwise, it would be impossible to distinguish habitual acts from other acts that we perform with greater effort and commitment. It suffices for some initial effort to be retained in conjunction with the habitual act and for attention to accompany its performance. In this way, a negative habit is immediately transformed into a positive one, i.e. ultimately into a habit that allows one to maintain an unchanged degree of consciousness, despite the frequent repetition of the same act. Biran’s mistake, according to Egger, is believing that there are active faculties that are enhanced by habit and passive facul-

[3] All quotations from Egger’s courses are translated by the author.

[4] Egger previously (1881) argued that, in addition to mental effort and attention, imagination and experience may also be helpful in this regard.

ties that are weakened by habit (1905: 652). The distinction is played out only at the level of habits themselves, which can be of different kinds, positive or negative – a division that takes on a moral nuance, since it seems that every negative habit, if desired, can be transformed into a positive one. Egger's correction of Biran would have a ripple effect and was subsequently reported by Chevalier in his important text dedicated to habit (1929).

The second pair of categories is built around the idea of repetition. According to Egger, there are in fact two ways to repeat: one pure and simple, and another that brings with it something innovative. Special habits correspond to the first type and imply the exact repetition of an act which, no matter how many times it occurs, remains unchanged. General habits, on the other hand, involve variation and are therefore innovative. One example of this is slips of the tongue, which Egger had already dealt with extensively more than twenty years earlier. In order to understand Egger's conception of general habits, however, it is necessary to think of an artist's talent: "A painter has a certain kind of talent and manifests it in all his pictures: he does not repeat himself; nevertheless, he imitates his past pictures in his new ones. The new paintings are original in some parts, but not in all" (1905: 655).

With this comparison, Egger pushes his conception of the second kind of repetition to such an extreme that he separates this kind of habit from the very idea of repetition. In fact, the last lecture ends with the claim that "this general habit, which is confused with talent, is a principle of *innovation* and not of repetition" (655).

Marco Piazza
Università degli Studi Roma Tre
marco.piazza@uniroma3.it

Sofia Sandreschi de Robertis
Università degli Studi Roma Tre
sofia.sandreschi@uniroma3.it

References

Aristotle, 1906, *De sensu and De memoria*, trans. George Robert Thomson Ross, Cambridge University Press, Cambridge.

Bianco, Giuseppe, 2018, "Quoi faire des ratés de l'histoire de la philosophie? Le cas du 'spiritualisme' de Henri Bergson et de Victor Egger", in *Le Philosophoire*, 50, 2: 103-120.

Bizub, Edward, 2006, *Proust et le moi divisé. La* Recherche*: creuset de la psychologie expérimentale (1874-1914)*, Droz, Genève.

Chevalier, Jacques, 1929, *L'habitude. Essai de métaphysique scientifique*, Boivin, Paris.

Chiaradonna, Riccardo, Farina, Flavia, 2020, "Il carattere come seconda natura in Aristotele", in *Paradigmi*, 38, 1: 23-38.

Delbos, Vincent, 1910, "Victor Egger", in *Revue internationale de l'enseignement*, 59: 5-22.

Dumont, Léon, 1876, "De l'habitude", in *Revue philosophique de la France et de l'Étranger*, 1: 321-366.

Egger, Victor, 1881, *La parole intérieure. Essai de psychologie descriptive*, Baillière, Paris.

Egger, Victor, 1901, "L'innovation psychique. – L'habitude génerale", in *Revue hebdomadaire des cours et des conférences*, 9, 2: 76-85.

Egger, Victor, 1905, "La psychologie, la volonté (suite): – l'habitude", in *Revue hebdomadaire des cours et des conférences*, 13, 1: 261-267, 357-364, 512-518, 647-655.

Freud, Sigmund, 1995, "The Interpretation of Dreams" [1900], in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, edited and translated by James Strachey in collaboration with Anna Freud, vols. 4-5, The Hogarth Press, London.

James, William, 1890, *The Principles of Psychology*, 2 vols, Holt, New York.

Joseph, John E., 2010, "Saussure's Notes of 1881-1885 on Inner Speech, Linguistic Signs and Language Change", in *Historiographia Linguistica*, 37: 105-132.

Joseph, John E., 2012, *Saussure*, Oxford University Press, Oxford.

Lalande, André, 1997[4], *Vocabulaire technique et critique de philosophie*, vol. 1, Quadrige/PUF, Paris: 392-398.

Lemoine, Albert, 1870, "L'habitude" in *Compte-rendu des Séances et travaux de l'Académie des Sciences morales et politiques*, 91: 149-165; 92: 79-107.

Lemoine, Albert, 1875, *L'habitude et l'instinct. Étude de psychologie comparée*, Baillière, Paris.

Lockwood Thornton C., 2013, "Habituation, habit and character in Aristotle's *Nicomachean ethics*", in T. Sparrow, A. Hutchinson eds., *A history of habit. From Aristotle to Bourdieu*, Lexington Books, Lahnam: 19-36.

Lukatela, Georgije, Eaton, Thomas, Sabadini, Laura, and Turvey M. T., 2004, "Vowel Duration Affects Visual Word Identification: Evidence That the Mediating Phonology Is Phonetically Informed", in *Journal of Experimental Psychology: Human Perception and Performance*, 30, 1: 151-162.

Maine de Biran, 1929, *The Influence of Habit on the Faculty of Thinking* [1802], trans. M. Donaldson Boehm, William and Wilkins, Baltimore.

Morel, Pierre-Marie, 1997, "L'habitude: une seconde nature?" in P.-M. Morel ed. *Aristote et la notion de nature. Enjeux épistémologiques et pratiques*, PUF, Paris: 131-148.

Piazza, Marco, 2015, *L'antagonista necessario. La filosofia francese dell'abitudine da Montaigne a Deleuze*, Milan-Udine, Mimesis.

Piazza, Marco, 2021, "'L'abitudine è la morte progressiva dell'anima apparente': Victor Egger tra Maine de Biran e Albert Lemoine", in V. Egger, *La nascita delle abitudini* [1880], trans. and ed. by S. Sandreschi, Mimesis, Milan-Udine: 73-95.

Ravaisson, Félix, 2008, *Of Habit* [1838], trans. and ed. by C. Carlisle and M. Sinclair, Continuum, London.

Rodrigo, Pierre, 2011, "The Dynamic of Hexis in Aristotle's Philosophy" in *Journal of the British Society for Phenomenology* (Special issue: Habit. Edited by C. Carlisle and M. Sinclair), 42, 1: 6-17.

Roni, Riccardo, 2016, *Victor Egger e Henri Bergson. Alle origini del flusso di coscienza. Con due lettere inedite di William James e di Henri Bergson a Egger*, Edizioni ETS, Pisa.

Roni, Riccardo, 2019, *Victor Egger (1848-1909). La filosofia spiritualista in Francia tra Ottocento e Novecento*, Mimesis, Milan-Udine.

Santone, Laura, 1998, "Victor Egger 'annunciatore' di Eduard Dujardin e di James Joyce. Nuovi elementi sulla genesi del monologo interiore", in F. Ruggieri ed. *Fin de siècle and Italy. Joyce Studies in Italy*, vol. 5, Bulzoni, Rome: 245-278.

Taine, Hippolyte, 1870, *De l'intelligence*, 2 vols, Hachette, Paris.

Vygotsky Lev S., 2012, *Thought and Language* [1934], revised and expanded edition, trans. and ed. by E. Hanfmann, G. Vakar, and A. Kozulin, MIT Press, Cambridge (MA).

Wittgenstein, Ludwig, 1953, *The philosophical investigations*, Blackwell, Oxford.

The Birth of Habits

Victor Egger

NOTE

This journal issue presents, for the first time in English, Victor Egger's short essay *La naissance des habitudes*, published in 1880 in the "Annales de la Faculté des Lettres de Bordeaux" (n. 1, pp. 209-223).

The translation is based on the original text, the page numbering of which is indicated in square brackets. In order to facilitate the reader's understanding of some of Egger's examples, in some cases the original French is provided in a footnote.

Egger's notes can be found at the foot of the page. Bibliographical additions and translators' notes are placed between square brackets.

The translation of the quotations included in the text is by the translators, unless otherwise indicated.

We warmly thank Carolyn Benson for the expertise with which she revised this translation.

philinq X, 2-2022, pp. *255-269*
ISSN (print) 2281-8618-ETS doi: 10.4454/philinq.v10i2.431

The Birth of Habits

I

"They are by habit", Aristotle says, "all those [actions] which [men] perform by reason of having performed them many times".[1] This is likely only an incidental sentence in the *Rhetoric*, but Aristotle nowhere contradicts it and sometimes even seems to evoke it. His view of this fundamental law of psychic life can be summed up in the following definition: "Habit is a power which is formed little by little as a result of the frequent repetition of a phenomenon which was not originally natural, yet in the long run habit comes to simulate nature".[2]

At the beginning of *L'habitude et l'instinct*,[3] Albert Lemoine corrects Aristotle's theory of habit as follows: if habit results from the repetition of the same fact [*fait*], the repetition of the same fact results, in turn, from habit. Repetition therefore fortifies habit but does not generate it; on the contrary, repetition, from the beginning, needs habit in order to be explained. If the tenth act finds its *raison d'être* in the first nine, the ninth finds its *raison d'être* in the eight that preceded it; similarly, the third act is explained by the first two, and the second only by the first. If an act could not by itself establish the beginning of a habit, we would not be able to understand how this power could suddenly appear in one of the following acts; if the power does not belong to any one of these acts, nor even to the first, there is no explanation of the fact that it can make itself manifest to us in the series of acts. It must be admitted, then, that all acts create habit; the

[1] [Aristotle], *Rhetorica*, I, 10, 13, p. 1369, b6. It seems to us that the formula with which Albert Lemoine's *L'habitude et l'instinct* ([Paris], Germer-Baillière, 1875, p. 2) begins is a paraphrase of this short passage.

[2] Compare C. Waddington[-Kastus], *De la psychologie d'Aristote*, [Paris, Joubert, 1848], pp. 217 ff.; the entries for *ethos* and *hexis* in Bonitz's lexicon [H. Bonitz, *Index aristotelicus*, Berolini, G. Reimer, 1870, pp. 216-217, pp. 260-261]; the entry for *consuetudo* in Bussemaker and Heitz's lexicon (Didot collection) [J.F. Dübner, U.C. Bussemaker, E. Heitz, *Index nominum et rerum absolutissimus*, in Id. *Aristotelis Opera omnia. Graece et latine, cum indice nominum et rerum absolutissimo*, vol. V, Parisiis, Editor Ambrosio Firmin Didot, 1848-1878, 5 vols., p. 193].

[3] [A. Lemoine, *Op. cit.*, pp. 2-6.]

first initiates it, and the successive acts confirm it. There is repetition only from the second act, and since habit is the only reason for the second act, this means that habit is pre-existent with respect to repetition; it is the power of repetition even before being its result. Thanks to the initiation of habit, the first act was sufficient to produce the second, and it was habit, the daughter of the first act, that generated the first repetition by which it was subsequently confirmed.

This argument is irrefutable, and we can consider Albert Lemoine's correction to Aristotle's theory a definitive acquisition for the science of the soul. We observe, however, that if we stick to the facts, not all habits seem to begin with a single act; there are some whose appearance, if not birth, is strictly in accordance with Aristotle's description, as in the following example.

When I arrive in a new city, I encounter a figure to whom I am indifferent on ten different occasions: as soon as he disappears, I forget him, but over time he imprints himself on my memory, and one day, when I encounter someone whose features are somewhat similar, I am reminded of him. In this case, the act of remembering had been long prepared for by a series of ten identical visual sensations; the habit did not appear until the eleventh act, so it is probable that the first would not have been sufficient to provoke the appearance of a memory in consciousness. I may concede that the first act initiated the habit, but the tendency to reproduction which resulted from it was too weak to produce a second act by itself, at least under the normal conditions of psychic life.

In the same way, the schoolboy who learns a lesson (I borrow this example from Albert Lemoine) does not usually attempt to repeat it after a first reading but reads and re-reads it again before putting the forces of his memory to the test by putting down the book.[4] He knows from experience that repetition alone will dispose the powers of his mind sufficiently to pass on to the act which is the purpose of his efforts.

Habit is a tendency, a power, a virtuality [210], and only its act reveals it to us. Habit prepares the act and, when the occasion proves favourable, brings it to consciousness, remaining for its part unconscious. On the other hand, it remains completely unknown to us if, for one reason or another, it becomes sterile, impotent, unable to act, and we cannot suppose it to be "invisible and present" except by analogy. It is true that if such reasoning was ever legitimate, it is precisely in the case we are dealing with here. Let us take it for granted, then, that every first fact leaves behind it a tendency to its reproduction – a tendency which is faint but not non-existent – and that this tendency, as long as it is not too weak and the occasion is favourable, is sometimes sufficient to induce the reproduction of the primitive fact.

[4] [Cfr. *ivi*, pp. 6-7.]

II

Albert Lemoine nevertheless neglected to cite precise cases in support of his argument. These cases, where the power of the first act is unquestionably shown, are very rarely met with in the domain of external and muscular actions, the only one normally attributed to habit, but are much more frequent in the order of purely internal facts. It is, however, customary to distinguish between memory and habit, and we shall therefore provisionally respect this distinction.

In those human actions of psychic origin in which muscular activity plays a part, and which are observable from the outside through it, the facts of which we speak are exceptional for two reasons: first, because the adult man innovates very little in the acts that his fellow men must witness and, when he does innovate, it is done in spite of himself, by error, by distraction; secondly, because these errors, these slips of the tongue [*lapsus*] – if he makes any – are not usually reproduced, and thus established habits easily re-establish their empire. Sometimes, however, the tendency left by the slip succeeds in inserting an act into the web of habitual acts: in such a case, we witness the first manifestation and, so to speak, the birth of a new habit.

This habit is indeed like a monster that cannot live. And yet the slips made by children, barbarisms formed by analogy – such as *taked* (instead of *taken*), *they ared* (instead of *they were*)[5] – persist for some time because the child believes they are correct and intentionally repeats them; did not the analogical slips of the Gallo-Romans, our ancestors, which became habitual and repeated from mouth to mouth, perhaps dictate the law and contribute to the formation of the French language?[6] The repetition of a slip of the tongue is not an indifferent matter: it helps us to understand the evolution of languages. We are witnesses to a beginning that will not be followed, but this spectacle disposes our spirit to imagine the origin of certain phenomena to which a lazy consensus has ensured a centuries-long duration.

Not all slips are new words or unusual phrases. There are in fact two kinds: some consist in the substitution of one word for another and resemble a solecism; others consist in the introduction, into a correct sentence, of a word that is unknown to the language, that is to say, a true barbarism. When we say or when we write one word of our language in place of another, we repeat a word out of order instead of repeating the only word that, at that point in the dis-

[5] [In the French original text: “comme *prendu* (pour *pris*), *ils sontaient* (pour *ils étaient*)”.]

[6] So also *rendu* [rendered], which is not derived from *redditus*, and *printanier* [spring-like], which is incorrectly derived from *printemps* [spring]. On these two types of barbarism and their relationship, see E. Egger [Victor’s father], *Observations et Réflections sur le développement de l'intelligence et du langage chez les enfants*, pp. 65-67 and p. 77 [Paris, Picard, 1879] (2nd ed., 1880).

course, would be appropriate: we follow one habit in place of another, and thus the spirit does not innovate. It innovates, on the contrary, when we replace the word required by the sense of the discourse with one devoid of sense, a barbarism. Every barbarism is a neologism, but it is a useless and futile neologism, a grotesque work of the creative imagination. If the slip is later repeated, this is certainly not due to the vanity of the inventor, but rather out of habit. This is because the first slip has left in us, despite ourselves, a reproductive tendency. In the following examples, we shall see the power of habit at work, which resides in a single act.

A few years ago, I gave a lecture on habit at the Lycée d'Angers. In the introduction, the words *volition* and *habit* came up again and again, for I was intent upon [212] distinguishing facts of habit from voluntary facts, which had been spoken of previously. But there came a moment when the two terms in antithesis became confused: I wanted to say *habit* and, a moment later, *volition*, and yet I found myself saying *habition*. I corrected myself immediately, but a few sentences later, having to say *volition*, I said *habition* a second time. I corrected myself again, but when I got to the heart of my argument, I forgot the word volition altogether. According to my syllabus, at the end of the lecture I should have quoted Aristotle's definition and pointed out the ingenious correction made to it by Albert Lemoine: I did not need to look very far for an example of the power of the first act; it was enough to remind the students of the double slip that had made them grin. Unwittingly, I had given them a *practical lesson* in the middle of the theoretical lesson, and a few months later I was able to see that, thanks to this unforeseen incident, Albert Lemoine's thesis had been neither forgotten nor contested.

Around the same time, one of my colleagues recounted the following to me. In his course, when he would stop in the middle of a reading or explanation of an author to make some additional remark, he would routinely say: "Let's go! Let's continue", or simply: "Let's go!" When, on the other hand, he interrupted the pupil in charge of reading or explaining, he would say: "Go!", meaning "Continue!" One day, he realised that he had just said to a pupil: "Let's go! Go". The two habits had unpleasantly merged.[7] The teacher mentally scolded himself and promised not to do it again. But, at the next class, he repeated under the same circumstances: "Let's go! Go". New remorse, new good intentions, new

[7] [In the original French text: "Vers la même époque, voici ce que me racontait un de mes collègues. Dans sa classe, lorsqu'il s'était interrompu au milieu d'une lecture ou d'une explication d'auteur pour faire quelque remarque incidente, il disait habituellement: 'Allons! continuons', ou simplement: 'Allons'; quand au contraire il avait interrompu l'élève chargé de lire ou d'expliquer, il lui disait: 'Allez!', pour 'Continuez!'. Un jour, il s'aperçut qu'il venait de dire à un élève: 'Allons! Allez'; les deux habitudes s'étaient fâcheusement soudées".]

defeat; he had to give up the fight and resign himself to always using this locution, *invita Minerva*, as odious as it is ridiculous. When he was telling me this story, the holidays were approaching: he was hoping to recover through rest and oblivion. I do not know whether his hope was disappointed.

In the two cases just mentioned, the power of the first act is explained by the very description we have given of it. It attracted our attention; we noticed it and then rejected it; we thereby imprudently elevated its importance, and when our attention left it, it left behind it a much stronger tendency than had we ignored it. Thus repetition was fostered by the mental effort [213] which was intended to defend us from it. We might also say that the consideration given to the slip is an immediate remembrance and like a second act which succeeds the first without interruption: this second act is deliberate, even if natural and more or less unreflective. Perhaps the third, which we actually call the second, results more from mental effort than from the first act; or at least the property of the first act does not appear free from all accessory influences. The same objection can be made with regard to infantile barbarisms: the child repeats them without intention, often even after reflection, because he believes he is speaking correctly and wants to be understood without difficulty.

What amply proves the influence of attention *a parte post* on the preceding examples is the fact that a slip that is immediately corrected, then repeated, then corrected again often becomes the almost necessary antecedent of the exact term which, for its part, invariably follows it. We correct the error we make out of habit: the error and the correction, at least for a certain moment, become inseparable. They form the two successive terms of one and the same habit, and of these two terms, one is involuntary, the other voluntary; yet they have the same fate, and the whole constitutes a new habit. The attention we pay to the slip is in some way materialised in the rectification; it as it were imprints it on us and at the same time, by the substitution of a correct term, cancels its effects on the intelligence of others. This phenomenon is very common; here is an example from my own experience:

When I took my first exam – the baccalaureate – the venerable Professor Patin, after having made me analyse a tragedy by Sophocles, invited me to speak about Virgil. Since I had just pronounced Orestes' name ten times, understandably a little nervous, I made Orestes the author of the *Eclogues*. I corrected myself; an instant later, the author of the *Georgics* was named: "Orestes – no! – Virgil", and then all of the books of the *Aeneid* paraded through my exposition as the works of a poet whom I admired very much and knew very well but whom I invariably called: "Orestes – no! – Virgil". It goes without saying that this singular habit did not survive the emotion that was its cause and justification. [214] The surest way to avoid a slip already committed is never to think about it again.

Nevertheless, if we do think about it despite ourselves, we must ensure that our attention, instead of following the risky term, immediately precedes it. To rage against one's oversight and correct it by making a resolution not to relapse is to increase the small chance it had of returning. One can protect oneself from error not in advance but only in the very moment: foresight can do nothing; only presence of mind is effective. Nevertheless, it is not enough to want it; one must also know precisely what one wants, because slips are insidious and can reappear in new forms. The following case is proof of this.

A few years ago, I was quickly sketching some notes while listening to a natural history lecture and had just written down the words *polyp*, *hydra*, *type*, when the word *time* came up. I spelled it the same way as the previous ones, with an *y*. I corrected the oversight; a little later I repeated it and then corrected it again. I then noticed that the error had already been repeated twice, and I resolved at this point to avoid it. But I was in a hurry to write: the word *time* came up for the third time, and I tried to be careful, but apparently it would take a lot more than that, since I made another mistake. I no longer wrote *tyme*, with a *y*, but *type*. What had happened? The two tendencies, the tendency to write the word *time* and the tendency to write the word *type*, had become confused, and I had wanted to separate them: by paying attention I had succeeded, but the mental effort had been too brief to retain a well-determined representation of its object, and, of the two distinct tendencies, the inappropriate one prevailed. Perhaps the mental effort was also undertaken too late: I had already written *ty* when I was taking care not to write *tyme*. The attention did not have a retroactive effect and served to avoid the barbarism only at the cost of another error. – For the sake of completeness I must add that, while I had noticed my error twice and had thought of avoiding it the third time, I had not, while writing, recognised the decisive cause. I had immediately forgotten the words *polyp*, *hydra* and even *type*, which I only took into consideration when I re-read my finished work. Therefore, no special attention to the word *type*, correctly used, had predisposed me to make the third slip: the new error was only caused by the acts of attention the aim of which [215] was to correct or avoid the first oversight.

When a slip is not perceived by its author, there is little chance of its recurrence; on the other hand, its repetition, when it does occur, reveals that a minimal tendency may be sufficient in some cases to produce a second act similar to the first. The property of the first act is then shown to be free from the auxiliary influence of mental effort. It is not attention that, by adding itself to the act, gives it the power to reproduce itself, for it already possessed this power on its own, since attention had ignored it. Attention likely increases the power of habit, and the stronger the habit, the more easily it reveals itself; but a very weak habit, born of a single act – and of an unreflective act, both before and after its production – may still reveal itself, at least if it is given the opportunity without delay, immediately after its birth.

A lady was telling several people about a misfortune that had recently befallen one of her friends, and at the end of the story, looking dismayed, she exclaimed: "Ah! It's *no fher for un*" (instead of "It's no fun for her").[8] "But what are you saying?" her husband asked her. And the lady resumed, much astonished by the question: "I say it's no *fher for un*!" It was necessary to repeat the sentence, correcting it, before she realised her absentmindedness.

I regret that I do not have a second example to compare with the preceding one. This kind of occurrence is necessarily very rare, because it presupposes a very high degree of distraction or emotion; it is necessary that the mind, concentrating entirely on the idea or feeling that occupies it, should pay no attention to the words by which it expresses its inner states.

The repetition of the slip, if it is unnoticed, is more frequent in calculation operations: the comparison of different results reveals an error; we begin the dubious calculation again and make the same mistake again in the same place. I can see two reasons for this relative frequency. Firstly, the habits we follow when calculating are too similar to each other, and nearby tendencies are more easily confused. Moreover, as calculation is not the constant occupation [216] of most men, these habits are usually less deeply rooted than those which our speech obeys, and new habits easily creep in among old ones, which offer too little resistance to them.

Although I have been unable to offer any examples along the lines of the preceding ones, slips that are repeated after being noticed should suffice to illustrate Albert Lemoine's thesis. Attention, in fact, has no special power; if it predisposes phenomena to repetition, it is only because it increases the amount of consciousness that would have belonged to them in its absence; the unconscious tendency that prepares the return of the act to consciousness is proportional to the amount of consciousness that is attributed to the act at the time it occurred; attention increases our consciousness of an already conscious state: it is first nothing more than the coefficient of consciousness, and then by reflection also of habit. The tendency towards future consciousness always depends, in the last analysis, on past consciousness.

[8] [In the original French text: "'Ah! ce n'est pas *guelle pour ai!*' (au lieu de: gai pour elle)".]

III

In all the cases we have mentioned so far, the act was, at least in part, muscular. Let us now turn to purely internal phenomena, of which muscular actions may be signs but in which they do not enter as constituent elements.

In this order of facts, the examples of the power of the first act are innumerable: mental repetitions are commonly called *facts of memory*,[9] and no one is surprised to remember for the first time what he has not seen or heard but once. Common parlance rightly distinguishes between *knowing* and *remembering*: *knowing* denotes habits of mind that are established and enduring, and whose act is frequent because it has been frequent; *remembering*, on the other hand, is the act of a nascent habit, still uncertain of its future, and perhaps destined to die young, for many memories are ephemeral [217] and do not shine in our consciousness but once. We also observe that, in linguistic usage, the noun *remembrance* does not refer to mental habits that are too imperious and too intense: a recollection that arises too frequently is called an *idée fixe*, *mania*, *habit*, and not *remembrance*. Remembrance can be defined as follows: *a nascent mental habit, whose object is strictly determined and whose act is accompanied by a judgement of recognition*.

When the judgement of recognition fails, the repetition is called *reminiscence*. Reminiscences are remarkable examples of the power of the first act, for they are often remote reproductions of acts that have not been remembered in the meantime and which are brought back to consciousness by an extraordinary concourse of circumstances. The normal association of ideas sometimes provides the occasion for repetition, as in the famous example of Corneille, who,[10] without knowing it, borrows the verses of *Polyeucte* from Godeau:

> And just as it has the brilliance of glass
> It likewise has the fragility.[11]

Sometimes the immediate antecedents of the phenomenon do not explain its manifestation: these cases of anomalous recollection or *hypermnesia* are only encountered in sleep or delirium,[12] states always characterised by the distur-

[9] The distinction between habit and memory is not scientific in nature. In this division, we follow French language usage in an attempt to give them an explanation.

[10] [G.] Ménage (*Anti-Baillet* [*ou Critique du livre de M. Baillet, intitulé Jugemens des savans*], vol. II [La Haye, Foulque et Van Dole, 1688, 2 vol.], p. 207); Ménage learned of the case directly from Corneille himself.

[11] [P. Corneille, *Polyeuctes, Martyr*, translated by D. Johnston, "Chronicle" Office, Bath, 1876, p. 74.]

[12] Many noteworthy cases are narrated in detail in: [G.W.] Leibniz, *Nouveaux Essais* [*sur l'entendement humain*, in *Oeuvres philosophique latines et françoise de feu Mr. de Leibnitz*, Amsterdam-

bance of the ordinary functioning of habit.

We shall confine ourselves here to two examples of reminiscence. The first was reported to me by an eminent professor of one of our science faculties. He had written two lectures on the subject of popular astronomy two years apart, and when writing the second he could remember nothing of the first except that he had drafted it. Having found the first manuscript, he came up with the idea of comparing the two drafts: the plan was the same, the two introductions were identical except for a few words, and in what followed whole sentences were repeated without any changes. [218]

Of this fact, and perhaps of some others, we shall say that it is useless to invoke the power of the first act in order to give them an explanation: can the same mind placed in the same circumstances, faced with the same problem – the problem of invention or the problem of disclosure – solve it in two different ways? If it is true that an ingrained habit simulates nature, nature can likewise simulate habit; must we not then give to the nature of repetition alone the just credit we were previously tempted to attribute to habit? – This objection does not impress us. We are far from denying that nature has any part to play in this kind of fact, but it seems to us incontestable that nature is at least confirmed, and above all determined, by its act. A being capable of habit is a being *whose act has an effect on the power to act* – or, in other words, on nature – by disposing it to repeat the act, i.e. by making determinate what was originally indeterminate in the same power. Twenty similar acts have a greater capacity to determine nature than one isolated act; but if one act can do nothing, how, if repeated twenty times, can it be more effective? We must either systematically deny habit and lead our activity in its entirety back to instinct or recognise the influence of habit in all our acts which are not new.

The second example is relevant because the repeated phrase, in the interval between the two appearances, passes from one language to another; the habit left by the first consciousness was thus not strictly determined but flexible and to some extent indifferent to the nature of the act.

One day, in Guernsey, Paul Stapfer met Victor Hugo on his usual walk. The poet approached him and said: "*Juvenal has stolen a verse from me*". I asked for an explanation, said Stapfer. Victor Hugo replied:

> There is a whole volume of the *Châtiments* that has not yet seen the light of day; later, you will read the following:

Leipzig, Schreuder, 1765], I, 3, 18; [W.] Hamilton, *Leçons de métaphysique*, 18ème leçon [*Lectures on Metaphysics and Logic*, vol. I, Boston, Gould and Lincoln, 1859-1860, 2 vol., pp. 235-252]; [L.F.A.] Maury, *Le Sommeil et les Rêves* [Paris, Didier, 1878, 4° ed.], [P.M.] Mervoyer, *Étude sur l'associations des idées*, [Paris, Durand, 1864], pp. 332-335.

No one knows his home better than I know the Champ de Mars.

Today, by chance, I opened a book by Juvenal and found:

Nota magis nulli domus est sua quam mihi lucus Martis.[13] [219]

Now, you must believe me, I have not read all of Juvenal's satires; there are some that I know by heart, but others I have never explored, and this is one of them.[14]

Unless we are to contend, with an English author, that Victor Hugo's soul formerly inhabited Juvenal's body after inhabiting the body of Aeschylus,[15] we must believe that the verse by Juvenal had been read by Hugo at the time of his first studies and that he then lost all memory of a presumably cursory reading of a copy he had not kept. There are even more extraordinary cases of forgetfulness: was not a learned polyglot one day surprised to recognise his own handwriting in the handwritten translation of an Oriental work he had found among the papers of a deceased friend? *He did not remember knowing this language.* He flicked through a dictionary, saw a grammar book: the forgotten language came back to him so quickly that he judged that he had known it and, without a doubt, he judged correctly.

The opposite of reminiscences are those cases in which we know we are remembering without knowing precisely what we are remembering. The memory, in other words, is incomplete and vague, but methodical reflection, if one is able to reflect, can complete and specify it, since it provokes favourable associations that bring to light the missing elements of the past fact of consciousness. If well conducted, reflection takes possession of the occasion, directs it, and seems to replace it as a stimulus to memory. Often, after a long period of oblivion, reflection revives the faint traces of a first act.

Horace Vernet, whose photographic memory was unbelievable, had a marvellous talent – one of his pupils told me – for compelling it to provide him at the right moment with the documents he needed: "he would leaf through it like a dictionary". One day, when he was directing the Academy in Rome, he had to paint a timpanist. The man and the horse were already on the canvas, but the artist's friends had, in vain, leafed through public and private collections for him: none contained a model of the instrument known as the timpani. Reduced to the sole resources of his memory, Horace Vernet put his head in his hands

[13] [In English: No one knows his own house as well as I know the groves of Mars; Juvenal, *The Satires*, I, vv. 7-8, in *Juvenal and Persius*, with an English translation by G.G. Ramsay, London and New York, W. Heinemann and G.P. Putnam's Sons, 1928, p. 3.]

[14] P. Stapfer, *Les Artistes juges et parties* [*Causeries parisiennes*], [Paris, Sandoz et Fischbacher], 1872, p. 77[-78]. [The verse attributed to Hugo is not, to our knowledge, to be found in any edition of *Les châtiments*, but only in Stapfer's text.]

[15] Ivi, p. 79.

and searched; [220] after twenty minutes, he picked up a pencil and without hesitation, without omitting a detail, drew a timpani, then took up his brushes and applied the colours. "You're making it up," an assistant said to him. – "I never make things up; it's all true" – "But where did you get the model from?" – "The Tower of London. I saw one there fifteen years ago".

Before concluding the discourse on memory, let us point out as evidence of the power of the first act what English psychologists have called an *inference from a particular to a particular.* A child has burned himself; he is again shown the object that made him suffer; the child moves his hand away. He does not yet believe that *fire burns*: the laws of nature are not yet formed in his mind, yet he remembers. This memory is like the stuttering of the inductive faculty; whether or not there is an *a priori* and universal principle of induction, there is no doubt that particular laws are created within us through accumulations of memories transformed into predictions. Renouvier quite rightly states the following in this regard:

> a first experience of a fact followed by another fact leaves behind, even in the most elementary consciousness, a disposition to imagine the second when the first reappears; this is properly speaking the infinitesimal element of habit.[16]

We have found that in children, memory manifests itself very early when it comes to frequently recurring facts and later when it comes to accidental facts, so much so that the child recognises his parents and nurse before he has even shown an aversion to the object that injured him.[17] – Although the child likely has many more memories than he knows how to express, it is probable that the habit is strengthened with age, for the first reproductive tendencies are weak, perhaps through lack of attention, and need to accumulate to produce an act that is really sensitive to consciousness. Yet in no period of life can the soul ever remain uninvolved in the influence of its acts: if habits arise from time to time, habit begins along with life, and the first sensation generates the first habit. [221]

[16] [C. Renouvier, *Examen des principes de psychologie de Herbert Spencer. V. Principes de logique*, in] "La Critique philosophique", [a. VI, n. 38], 18th October 1877, [pp. 180-188], p. 184.

[17] E. Egger, *op. cit.*, p. 19.

IV

At every age, moreover, habits similar to those of the new-born are formed in the soul – unknown habits, which never reveal themselves because they do not have the necessary strength to reproduce even one time the act that gave birth to them. This act was unreflective, unconscious, and the habit in turn is too weak. Moreover, since habits are maintained and enlivened by successive repetitions of the act, the sterile habit, already so fragile at its origin, never being revived by the act which it does not know how to produce, weakens with the passage of time: the older it is, the less able it is to manifest itself. With the exception of morbid cases, no occasion can make it manifest to us; it is the unripe germ of an impossible act, as if it did not exist.

At other times, the habit would have been forceful enough to produce an act, and if this second act had been an object of reflection for the mind, the tendency enlivened by attention would have been able to grow and last in time without fading, thanks to periodical actuations. However, if at first it lacks the opportunity, it languishes by waiting for it; when it finally arrives, it is too late. It is another tendency, either younger or stronger, that inserts its act into the web of facts of consciousness, and the unrealised act is condemned to unconsciousness forever. If habit is proportional to the act, or, in other words, to consciousness, it is also, but in an opposite sense, proportional to the duration of the intervals between the corresponding acts. The tendency, each time it occurs, increases; in inertia, on the other hand, it weakens. We could summarise this double influence of habit in a concise formula: *the measure of habit, at a certain moment, is given by the ratio, in the past, of the act and the non-act.*

The habits within us are incalculable in number: the more specifically distinct states of consciousness we have had, the more habits remain unknown beyond consciousness. At every moment of our existence, this whole crowd of habits tends to act and strive for consciousness, but each of them has a distinctly different chance of success. Some habits are impetuous, impatient, certain to reach consciousness and to do so often. The smallest opportunity is enough for them: they keep an eye out [222] for analogies, for associations. Their act has a thousand pretexts for entering the scene and, in the frequency of its returns, torments or bewitches us. Other habits, on the other hand, which are fragile and timid, do not know how to introduce their act into the series of facts of consciousness except thanks to a close analogy or a deep-rooted association; they show themselves only when an intimate companion leads them in by the hand. There are still others who are as if exhausted by a long rest, almost to the point of death, but reflection, if well directed, can discover them in the crowd in which they have hidden themselves and can bring them to light by force.

Finally, there are habits that are condemned, exhausted, and reflection, even the most ingenious, would not know how to find their traces and give them life.

Common sense, on the contrary, knows and calls by the name of habit nothing but the strongest tendencies, those whose act is periodical and easy, those which, vital enough from the beginning, favoured by the occasion and preserved by attention, can last as long as we do and accompany us to the grave. These in particular are part of our character; they serve to define us: behind the frequently repeated act, the witnesses of our life foretell the permanent tendency, and we as well, if we know how to put into practice the precept of Socrates, can know and quote them.

The triumph of these dominant habits is the work of a selection that is partly natural, partly artificial. The force of the first act and the frequency of the occasions is the part that belongs to nature – but attention, that is, the will, chooses from among the already conscious acts and arranges those it prefers for more frequent repetition. This hierarchy of our tendencies, delineated by the natural play of psychic facts and perfected by the will, constitutes a large part of the aesthetic and moral value of our soul. A frail soul is a soul cluttered by habits that are too many in number and too similar in nature; a strong soul, on the other hand, disdains most of the habits that are formed in it and allows them to disappear; it cultivates superior tendencies that are approved by reason and finds its pride in their triumph, which, in its eyes, is confused with the triumph of truth and goodness. [223]

Edizioni ETS
Palazzo Roncioni - Lungarno Mediceo, 16, I-56127 Pisa
info@edizioniets.com - www.edizioniets.com
Finito di stampare nel mese di luglio 2022