

The Rise of Compatibilism:  
A Case Study in the Quantitative History of Philosophy\*

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Incompatibilists about free will and responsibility often maintain that incompatibilism is the intuitive, commonsense position (e.g., Kane 1999, Strawson 1986). Recently, this claim has come under unfavorable scrutiny from naturalistic philosophers who have surveyed philosophically uneducated undergraduates (e.g. Nahmias et al. forthcoming; Woolfolk et al. forthcoming; but cf. Nichols & Knobe forthcoming). But there is a much older problem for the claim that incompatibilism is intuitive – if incompatibilism is intuitive, why is compatibilism so popular in the history of philosophy? In this paper I will try to answer this question by pursuing a rather different naturalistic methodology. The idea is to look not at the responses of the philosophically naïve, but at the views of the most sophisticated – the philosophers themselves. But we look at the history of philosophy not by further close reading of the texts, but rather, by doing the numbers.

The paper will first set out the basic philosophical background of interest and then give a general methodological account of how a quantitative history of philosophy might proceed. This methodology will then be invoked as a tool for answering the question, why did compatibilism catch on? The hypothesis about compatibilism will be familiar – that compatibilism thrived because it is motivationally attractive. The novelty will be in using quantitative history to support the hypothesis.

### **1. Philosophical background**

Compatibilist accounts of free will have grown ever more sophisticated. The literature is impressive in both its subtlety and its volume. But we will be interested in the most

elemental claim shared by all compatibilists, viz., the compatibility thesis: Free will and moral responsibility are compatible with determinism. That is, even if determinism is true, it does not threaten free will or moral responsibility. Those of us who embrace incompatibilism deny the compatibility thesis, of course. We maintain that determinism does conflict with our ordinary notions of free will and responsibility. In contemporary discussion of free will, incompatibilists self identify as the underdog (e.g., Strawson 1994; Pereboom 1995). But we console ourselves with the idea that incompatibilism is the natural, intuitive view of free will and responsibility. The history of philosophy seems to have been unkind to our natural, intuitive notions.

On one standard view, Hobbes was the first philosopher in the early modern period to articulate the compatibilist view clearly. But after Hobbes, compatibilism takes off. It might not be accurate to say that compatibilism becomes the dominant position in the early modern period, but it clearly enjoys an impressive members list. The enormous success of compatibilism is something of an embarrassment for those of us who think incompatibilism is the natural commonsense position. Incompatibilists are accordingly inclined to regard compatibilists as philosophically shallow. However, when compatibilism enjoys the support of Hobbes, Locke, Leibniz and Hume, the charge of philosophical superficiality starts to seem rather less plausible. Thus we are stuck with the question, If compatibilism violates commonsense, why is it such a hit?

Many of us incompatibilists think we know the answer to this: it's *wishful thinking*! Philosophers embrace compatibilism because they want it to be true. This view is, I think, common among incompatibilists. Famously, James dubs compatibilism a "quagmire of evasion". Even more famously, Kant says it's a "wretched subterfuge." We can put the incompatibilist's motivational hypothesis somewhat more precisely as follows:

M: Philosophers embrace compatibilism despite its counterintuitiveness because compatibilism is *motivationally attractive*.

But this might sound rather petulant and *ad hominem*. It would be nice to have at least a smattering of evidence for the charge. We need to devise a method to sharpen and evaluate our motivational hypothesis.

## 2. Towards a quantitative history of philosophy

Traditional history of philosophy proceeds by close readings of the texts, by using textual evidence and supplementary biographical materials to interpret the philosophical views of the great minds of the past. Here I want to advocate a more abstract approach that draws on traditional work in the history of philosophy. We can exploit traditional interpretations of historical philosophers to chart patterns of distribution of philosophers over philosophical positions. A related quantitative approach to literature has been championed by Franco Moretti (2003). For instance, Moretti argues that we can get a better understanding of the history of genre literature by tallying the number of books published annually in a given genre. It is an unabashedly radical way to think about literature.<sup>1</sup> It is no less radical to apply such a method to philosophy. But, as with Moretti's fledgling attempts to understand the history of literature, one can hope that a quantitative approach will give us a new way to understand features of the history of philosophy, and even perhaps something about the philosophical mind. The guiding idea is that a more abstract, quantitative, approach can reveal patterns that get lost in the traditional project of close readings. In much empirical research, one tries to detect patterns through the noise of individual variation. Similarly, by doing quantitative history of philosophy, we might be able to find interesting generalizations through the din of history.

Whereas for Moretti, the unit of analysis is the book, for our project, the relevant unit will be the philosopher. And rather than sort philosophers into genres, we will place them into the space of philosophical positions. How will we determine which philosophers go into which slots? It will not do for the quantitative historian of

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<sup>1</sup> Indeed, Harold Bloom calls Moretti "an absurdity" (E. Eakin, "Studying Literature by the Numbers" *New York Times*, January 10, 2004). (Oh well, my heroes have always been vilified.)

Although the application of quantitative history to literature is radical, within the field of history, quantitative history has been an established methodology for decades (see e.g., W. Adyeltote, A. Bogue, and R. Fogel, eds. *The Dimensions of Quantitative Research in History* [Princeton, NJ: Princeton University Press, 1972]).

philosophy to decide on his own where the philosophers are located in philosophical space. For that will be a source for something like experimenter bias. Rather, the quantitative historian should rely on the work of others to determine where the philosophers lay in the philosophical geography. There is, however, an obvious problem with this method. Historians of philosophy notoriously disagree about how to interpret the philosophers. That's their bread and butter. Indeed, from an outsider's perspective, it seems that the surest path to fame as a historian of philosophy is to make some outrageously heterodox interpretation seem plausible. Descartes isn't a rationalist, Berkeley isn't an idealist, Kant isn't a Kantian. For doing quantitative history of philosophy, we want to avoid such controversies. Ideally, we will want to use the dominant interpretations among the experts in the area. The expectation is that if we get a good number of philosophers into our sample, it will not matter all that much if some of the standard interpretations we use are mistaken. Of course, if *most* standard interpretations are wrong, that spells real trouble for the quantitative history of philosophy. But if we are so bad at interpretation, this spells trouble for history of philosophy quite generally.

Merely plotting philosophers into a table of philosophical positions is not very interesting. One needs hypotheses about the expected distributions to make the tables informative. And our hypotheses may come from many different sources since there are, in fact, many influences and constraints on the distribution and evolution of philosophical theories. In constructing hypotheses about the history of philosophy, we would do well not to focus exclusively on the constraints imposed by Truth and Rationality, but also to consider the influence of religion, politics, and culture. Philosophical inquiry is likely also shaped in ways that are illuminated by economic models.<sup>2</sup> The particular aims of the research will largely determine which resources are appropriate to the task.

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<sup>2</sup> See P. Kitcher, *The Advancement of Science: Science without Legend, Objectivity without Illusions* (New York: Oxford University Press, 1993) on economic models of scientific inquiry. To explain the history (and rationality) of science, Kitcher introduces the notion of a *scientific entrepreneur* who will pursue neglected lines of research purely out of self interest. We might appropriate this idea into a quantitative approach to

For our purposes, the most important factors are psychological, since we're interested in the psychological underpinnings of philosophy. Here too, there are very many psychological factors that might influence the distribution and evolution of philosophical theories. For instance, researchers in cultural evolution maintain that cultural evolution is shaped by innate modules dedicated to folk psychology, folk physics, and folk biology (e.g., Sperber 1996; Boyer 1994). If they are right, it seems overwhelming plausible that these modules also shaped philosophical theorizing. Other work in cultural evolution indicates that emotion systems shaped the cultural evolution of norms (Nichols 2002). Again, it seems likely that emotions are an important psychological factor in the evolution and distribution of philosophical theories. But for our purposes, we want to focus on yet another psychological factor: motivation. For the claim I want to defend is that motivational factors explain the rise of compatibilism.

There are several general reasons to think that motivation has an effect on theory building. The social psychology literature reveals a number of biases that make us more likely to adopt and retain beliefs that are motivationally attractive. Consider just two important biases, motivated memory search and motivated belief construction. When we search for memories, at least in some cases, we search for memories that are motivationally attractive. For instance, in one experiment, subjects were induced to think either that being introverted was desirable or that being extraverted was desirable. Then subjects were asked to recount memories of past behaviors that indicated the extent to which they were introverted or extraverted. Subjects induced to find introversion desirable were more likely to recount introverted memories first and to produce more

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philosophy. We have philosophical economies, sets of theories that are in competition for attention and discussion, and we have *philosophical entrepreneurs* who want to make novel contributions to the field. Although we philosophers sometimes think we're above all this crassly self-interested jockeying, the idea of philosophers as entrepreneurs is likely no more of a distortion than that of scientists as entrepreneurs. Even Kant, revered for his philosophical purism, had an abiding, even passionate, desire to say something new (see M. Kuehn, *Kant: A Biography* [Cambridge, Cambridge, University Press, 2001]).

introverted memories than subjects induced to find extraversion desirable (Sanitoso et al. 1990). Empirical work has also indicated that motivation affects which beliefs people are likely to acquire from new information. In one experiment, two groups of subjects were given information indicating either that people in their group were more prosocial or that they were less prosocial than a different group. The information presented to all of these subjects was based on a small sample. However, the subjects who were presented with an undesirable conclusion (that their group was less prosocial) were significantly more likely to call into question the adequacy of the sample size than the subjects who were presented with the desirable conclusion (Doosje et al. 1995). This itself is a small sample of the rich body of work suggesting that motivation plays a powerful role in theory construction.<sup>3</sup>

The psychological literature thus leads us to expect that motivationally attractive theories should enjoy an advantage. Of course, that alone does not guarantee that these forces would have *historical* influence. However, there is some historical evidence that motivation has indeed shaped the history of ideas, in particular, religious ideas. In the evolution of Abrahamic religions from Judaism through Christianity and Islam, the doctrines that get preserved are disproportionately those that are motivationally attractive (Nichols 2004). The foregoing provides good reason to suspect that motivation plays an important role in the history of philosophical ideas as well. But it is easy to talk historicity. It will be more persuasive if we can marshal some historical evidence.

### **3. Sharpening the hypothesis**

Now that we have a very general sketch of the methods, we need to focus more closely on the factors that will be important to our case study. Sometimes, a given view is motivationally attractive to virtually everyone. This is plausibly the case for religious doctrines of heaven and divine justice. However, in other cases, a doctrine will be motivationally attractive to one group but not another. Racist doctrines provide an obvious example. Racist doctrines will be less attractive to members of the denigrated

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<sup>3</sup> For a terrific review see Z. Kunda, *Social cognition: making sense of people* (Cambridge, Mass: MIT Press, Bradford Books, 1999).

race than to others. When a view has this kind of differential motivational attractiveness, this will give rise to differential predictions about the groups that will tend to adopt the view. Such, I suggest, is the situation with compatibilism.

The motivational explanation for the rise of compatibilism generates a specific prediction about how the philosophical geography should be populated. The reason is simple. Compatibilism will be especially motivationally attractive for people who find determinism plausible. For those who independently reject determinism, there is less motivational pressure to think that free will and responsibility are compatible with determinism. But of course in terms of the metaphysics, there is no particular reason why the truth of determinism should bear on the consistency of determinism and moral responsibility. It is perfectly consistent to maintain that determinism is false, but orthogonal to whether we are free and responsible. So, the differential prediction is generated by the fact that compatibilism will be more attractive to determinists than to indeterminists. Hence, from our initial hypothesis (M) we can now fashion a more refined prediction:

MD: Determinists will be more likely than indeterminists to be compatibilists. Table 1 sets out the philosophical geography, and, put graphically, the prediction is that the upper right cell (cell #2) in Table 1 will be systematically underfilled.

	Determinist	Indeterminist
Compatibilist		
Incompatibilist		

Table 1: The philosophical geography

#### 4. Testing the prediction

To do quantitative history of philosophy, we need to focus on an appropriate population. That means picking a set of philosophers. Clearly we want to do this in the most objective way possible, and we would do well to begin with a set of philosophers that does not range wildly across philosophical history. That is, we should begin with a set

that is constrained in its historical range.<sup>4</sup> The early modern period will be a good focus for our purposes. For here the major issues in the history of philosophy were systematically explored by dozens of sophisticated minds. Of course, there were many philosophers in the early modern period, and I will be unable to investigate very many of them here. For a first pass, let us consider the Magnificent Seven, those that are standardly taught in early modern courses: the continental rationalists Descartes, Spinoza and Leibniz, the British empiricists Locke, Berkeley and Hume, and the singular Kant. On standard interpretations, the Magnificent Seven populate the positions as reflected in Table 2.

	Determinist	Indeterminist
Compatibilist	Locke, Leibniz, Hume	
Incompatibilist	Spinoza	Descartes, Berkeley, Kant

Table 2: The Magnificent Seven<sup>5</sup>

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<sup>4</sup> The reasons for this restriction parallel the reasons for using closely matched samples in other domains of research. We want to minimize extraneous influences. So, by focusing on philosophers who worked in roughly the same period, we can minimize the worries that would arise if we had a set that picked a few philosophers from each historic period. So, for instance, it would be seriously problematic to use a set that consisted only of Plato, Aristotle, Descartes, Kant, Russell and Quine. The huge historical differences that attended those philosophers would introduce confounding factors that we want to avoid as much as possible.

<sup>5</sup> To determine standard interpretations of the philosophers, I went first to the *Encyclopedia of Philosophy*, edited by Paul Edwards (New York : Macmillan, 1967). If the philosopher's view was not described there (or the description was equivocal), I next went to the *Routledge Encyclopedia of Philosophy*, edited by Edward Craig (London: Routledge, 1998). If the view was not described in either *Encyclopedia*, then I relied on the secondary literature. For Table 2, the sources are as follows. Berkeley: P. Olscamp, *The Moral Philosophy of George Berkeley*. (The Hague: Martinus Nijhoff, 1970): 91-98.



Here we see that the indeterminist compatibilist position is unoccupied, which is just what was predicted. Still, seven is a pretty low number, and we only have a single figure in one of the cells. A bigger sample would be nice. How do we get a bigger sample? One way is by expanding our list to include the major representatives of positions on free will in the early modern period. That gives us Table 3:

	Determinist	Indeterminism
Compatibilist	Locke, Leibniz, Hume, Hobbes	
Incompatibilist	Spinoza, D'Holbach	Descartes, Berkeley, Kant, Reid

Table 3: The big ten: (the Seven, plus the major figures on free will)<sup>6</sup>

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Descartes: R. Taylor, “Determinism” in Edwards, *Encyclopedia of Philosophy*, v. 2: 365. Hume: D. MacNabb, “Hume, David” in Edwards, *Encyclopedia of Philosophy*, v. 4: 89. Kant: W. Walsh, “Kant, Immanuel” in Edwards, *Encyclopedia of Philosophy*, v. 4: 318. Leibniz: L. Russell, “Leibniz, Gottfried” in Edwards, *Encyclopedia of Philosophy*, v. 4: 426-7. Locke: R. Abelson, “Ethics, History of” in Edwards, *Encyclopedia of Philosophy*, v. 3: 92. Spinoza: A. MacIntyre, “Spinoza, Benedict” in Edwards, *Encyclopedia of Philosophy*, v. 7: 540. In contemporary work, some maintain that Locke is an incompatibilist and indeterminist (Yaffe 2000), but this remains a heterodox interpretation. Rather more contentious is the interpretation of Descartes. While many interpret Descartes as indeterminist and incompatibilist (e.g., Newman forthcoming), many others (e.g., Chappell 1994) interpret Descartes as determinist and compatibilist. Note, however, that neither interpretation puts Descartes in the key cell – indeterminist and incompatibilist.

<sup>6</sup> The sources for categorizing the additional philosophers are as follows. Hobbes: R. Peters, “Hobbes, Thomas” in Edwards, *Encyclopedia of Philosophy*, v. 4: 41. D'Holbach: A. Vartanian, “Holbach, Paul-Henri” in Edwards, *Encyclopedia of Philosophy*, v. 4: 50. Reid: S. Grave, “Reid, Thomas” in Edwards, *Encyclopedia of Philosophy*, v. 7: 121.

The same pattern holds. No one occupies the crucial cell, even when we include the major theorists of free will. Now, however, an objection to the method emerges. Perhaps someone who held the position of indeterminist compatibilism could not be bothered to write about free will because it would seem like a non-problem. By focusing on people who are devoted to the issue of free will, we might have collected a skewed sample. We need a larger sample of philosophers, and one that is assembled independently of our project.

The natural place to look for a larger sample is in expanded anthologies of early modern philosophers that are used to introduce students to the major philosophers of the period. One widely used set of such anthologies is the series, *Readings in the History of Philosophy*. Two volumes, one edited by Richard Popkin and the other by Lewis White Beck, include philosophers from the early modern period.<sup>7</sup> Since Hobbes is often regarded as providing the first explicit statement of compatibilism in the early modern period, we will want to include him and the subsequent philosophers up to Kant. *Readings in the History of Philosophy* includes a total of 20 philosophers from Hobbes to Kant.<sup>8</sup> By plotting these philosophers, independently assembled by anthologizers, I can avoid the charge that I have cherry picked the philosophers from the free will literature. For, as luck would have it, the major philosophers in the early modern period tend to be systematic, and so they tend to *have* a position on free will.<sup>9</sup> Thus, we can plot our major twenty to generate Table 4.

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<sup>7</sup> Popkin, ed., *The Philosophy of the 16th and 17th Centuries: Readings in the History of Philosophy* (New York: The Free Press, 1966); Beck, ed., *Eighteenth Century Philosophy: Readings in the History of Philosophy* (New York: The Free Press, 1966).

<sup>8</sup> Newton is also in the anthology, but he is excluded from our sample since he is not a systematic philosopher.

<sup>9</sup> By contrast, today's major philosophers are less likely to pronounce so widely. What, for instance, is Jerry Fodor's view of free will? Or David Kaplan's? Or David Hull's?

	Determinist	Indeterminist
Compatibilist	Locke, Leibniz, Hume, Hobbes, Pascal, Wolff, Condillac	
Incompatibilist	Spinoza, D'Holbach, Diderot, Lessing, Voltaire	Descartes, Berkeley, Kant, Reid, Bayle, Gassendi, Malebranche, Rousseau

Table 4: The major twenty<sup>10</sup>

As we can see from Table 4, even with the major twenty, we do not find any philosopher holding the view that indeterminism is true, but so is compatibilism. With twenty philosophers plotted, we now have a big enough sample to attempt some statistics.<sup>11</sup> But

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<sup>10</sup> The sources for categorizing the additional philosophers are as follows. Bayle: J. Kilcullen, *Sincerity and Truth: Essays on Arnauld, Bayle, and Toleration* (Oxford: Oxford University Press, 1988), 179-80. Condillac: P. Johnson, "Condillac, Etienne" in Craig, *Routledge Encyclopedia of Philosophy*, v. 2: 526. Diderot: N. Torrey "Diderot, Denis" in Edwards, *Encyclopedia of Philosophy*, v. 2: 401. Gassendi: M. Osler, "Gassendi, Pierre" in Craig, *Routledge Encyclopedia of Philosophy*. Lessing: H. Chadwick, "Lessing, Gotthold" in Edwards, *Encyclopedia of Philosophy*, v. 4: 446. Malebranche: S. Nadler, "Malebranche, Nicolas" in E. Craig, *Routledge Encyclopedia of Philosophy*, v. 6: 63. Pascal: M. Moriarty, "Grace and Religious Belief in Pascal" in N. Hammond, ed., *The Cambridge Companion to Pascal* (Cambridge: Cambridge University Press, 2003): 149-52. Rousseau: R. Grimsley, *The Philosophy of Rousseau* (Oxford: Oxford University Press, 1973): 77-8. Wolff: L. Beck, *Early German Philosophy: Kant and His Predecessors* (Cambridge, MA: Harvard University Press, 1969), 237, 271 (Wolff is characterized as a Leibnizian about free will). Voltaire: N. Torrey, "Voltaire, Francois-Marie" in Edwards, *Encyclopedia of Philosophy*, v. 8: 265.

<sup>11</sup> For Table 4, determinists are significantly more likely than indeterminists to be compatibilists ( $\chi^2$  (1, N=20) = 7.179,  $p < .01$ , two-tailed), compatibilists are more likely to

statistics aren't required to recognize the striking fact that the key cell continues to be empty. *No one* occupies it. Here was a gaping vacancy in the philosophical geography, and as far as we can tell from the major twenty, no one was interested in homesteading. Thus, the motivational hypothesis (MD) is confirmed by the quantitative history.

In a sense, the pattern we have found just confirms the historical aptness of William James' traditional tri-partite division of positions into libertarianism, soft determinism, and hard determinism. Why not the obvious remaining combination of indeterminism and compatibilism? The motivational hypothesis explains this aspect of the history of philosophy.<sup>12</sup>

## 5. Competing Explanations

Although I have argued that the motivational hypothesis (MD) is confirmed by the quantitative history, there might be alternative explanations for the pattern we've observed. I want to consider briefly one such alternative here.

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be determinists than indeterminists ( $\chi^2$  goodness-of-fit (1, N=7) = 7.00,  $p < .01$ , two-tailed), but incompatibilists are not more likely to be indeterminists than determinists ( $\chi^2$  goodness-of-fit (1, N=13) = .692,  $p = .405$ , two-tailed, n.s.).

<sup>12</sup> Perhaps the compatibilist will object that the explanation is refuted by the more recent history of philosophy, after the advent of indeterminist physics. For over the last century, most philosophers are indeterminists (or willing to acknowledge indeterminism as a serious contender), and yet compatibilism continues to thrive. The first thing to say about this is that it does not explain the history we have considered in this paper. That is, the compatibilist still needs to give an explanation for the distribution of positions in the early modern period. Pointing to the recent history does not, by itself, provide any explanation for the early modern history. (A compatibilist alternative explanation is discussed in section 5.) Moreover, the incompatibilist can offer a plausible explanation for why the philosophical geography changes with indeterminist physics. According to the incompatibilists, the reason people are indeterminists in the early modern period is precisely because they believe in free will. With quantum mechanics, a different reason for indeterminism emerges and this complicates the philosophical space.

The motivational hypothesis says that the reason philosophers embrace compatibilism is because they want it to be true. However, the compatibilist might play turn about and claim that indeterminism is embraced because it is motivationally attractive to incompatibilists. Indeed, John Doris suggested the following perversion of Kant's swipe at compatibilism: indeterminism is the wretched subterfuge of the incompatibilist.

The plot in Table 4 helps to fend off this competing hypothesis. For it is not the case that incompatibilists uniformly clump into the indeterminist cell. Some incompatibilists are hard determinists. They, at least, are willing to say that the news is bad. Indeed, for Table 4, incompatibilists are no more likely to be indeterminists than to be determinists.

Although this explanation fares worse than the motivational explanation, I do not mean to suggest that the motivational explanation is the *only* explanation of the distribution. No doubt there are other ways to explain the pattern. The thrust, however, is that this pattern is exactly what the motivational hypothesis predicts.

Of course even if all alternative explanations are inferior, even if it is true that the success of compatibilism can be attributed to motivational factors, that does not show that compatibilism is false. It may be that motivation drove the philosophers to recognize a heretofore neglected feature of our concepts of free will and responsibility. As is familiar from discussions of the genetic fallacy, demonstrating that a view has arational origins does not demonstrate that the view is false. The point rather is that the incompatibilist has a plausible and evidentially supported explanation for the rise of compatibilism. So the incompatibilist need not relent on the claim that incompatibilism is the intuitive, commonsense position.

Part of the goal in this paper has been to support the view that incompatibilism is intuitive by defending a motivational explanation for the rise of compatibilism. The fact that compatibilists are disproportionately determinists supports the hypothesis that motivation drives the success of compatibilism. The case study of the rise of compatibilism is also meant to illustrate the potential for doing a quite different kind of history of philosophy, by the numbers.

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