



The Fate of Nebuchadnezzar

Curiosity and Human Nature in Hobbes

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Abstract

This paper makes a case for the centrality of the passion of curiosity to Hobbes's account of human nature. Hobbes describes curiosity as one of only a few capacities differentiating human beings from animals, and I argue that it is in fact the fundamental cause of humanity's uniqueness, generating other important difference-makers such as language, science and politics. I qualify Philip Pettit's (2008) claim that Hobbes believes language to be the essence of human difference, contending that Pettit grants language too central a place in Hobbes's psychology. Language is, for Hobbes, a technology adopted on account of curiosity. Further, curiosity is necessary not only for linguistic but also for scientific activity. Only after what he calls original knowledge has been gathered are names employed to generate the conditional propositions that constitute science. Finally, curiosity can resolve another puzzle of Hobbesian psychology that Pettit leaves unanswered: our tendency towards strife. Hobbes believes that insofar as human beings have an implacable hunger for knowledge of the future, we are unable to rest content with present gains and must always aspire to secure the best possible outcome for ourselves.

Keywords

Hobbes – Pettit – curiosity – language – human nature – science

1 Introduction

Hobbes's views on human nature have elicited confusion and revulsion from his own time up to the present. A bleakly misanthropic picture is easy to

extract from his works: infamously Hobbes wrote of life as a race, with “no other goal, nor no other garland, but being foremost.” Further elaboration offers cold comfort: “Continually to be out-gone, is misery. Continually to out-go the next before, is felicity. And to forsake the course, is to die.”¹ In an affront to his more pious contemporaries, Hobbes suggested that this existential anxiety, which manifests vilely as narcissistic avarice, is one of the most significant ways in which humans differ from other animals. In response Edward Hyde, Earl of Clarendon, fumed that “to make Man such a Rascal, and more a Beast in his frame and constitution than those he is appointed to govern, is a power that God never gave the Devil; nor hath anybody affirm’d it, til Mr. *Hobbes* took it upon him.”²

In his 2008 *Made with Words* Philip Pettit too expresses disappointment with Hobbes’s insistence on the competitiveness at the heart of human nature, but sets it aside to focus on another liminal character in Hobbes’s thought demarcating humans from beasts: language. According to the Hobbesian account, Pettit maintains, language is the “technology that transformed our kind, introducing a deep cleavage between us and otherwise comparable animals.”³ Pettit claims a foundational role for speech in Hobbes’s natural and political science, and concludes that the ability to think in, and communicate by means of, universal terms drives both human cooperation and human competition. He remains puzzled by Hobbes’s assumption that the concern of one human for another “always takes the form of a desire for superior standing,” countering with the “fact” that “we are often content with the standing of equals.”⁴ In giving language logical primacy in Hobbes’s account, Pettit makes insecurity a secondary, and corrigible, aspect of human nature.

Here I argue that while Hobbes’s views on language cannot satisfactorily explain the human obsession with power – nor, *pace* Pettit, the emergence of natural science – an analysis of his theory of pre-linguistic human nature can. For Hobbes the origin of both selfishness and science is *curiosity*, and I demonstrate that Hobbes believes this uniquely human appetite to be logically prior to language.⁵ Curiosity spurs humans to envision a broad expanse of possible

1 Thomas Hobbes, *The Elements of Law, Natural and Politic*, ed. F. Tönnies (London: Simpkin, Marshall, 1889), I.9, 48.

2 Quoted in A. A. Rogow, *Thomas Hobbes: Radical in the Service of Reaction* (New York and London: W. W. Norton, 1986), 191.

3 P. Pettit, *Made with Words: Hobbes on Language, Mind and Politics* (Princeton: Princeton University Press, 2008), 2.

4 *Ibid.*, 3.

5 Pettit is ambiguous about whether he believes the priority Hobbes gives language to be natural-historical (chronological) or logical-methodological. I follow Hungerland and Vick in

futures, and therefore a diverse landscape of personal purpose. People's hunger for knowledge makes them think about potential causal relationships, and leads to "anxiety for the future time," which in turn "disposeth men to inquire into the causes of things"⁶—a vicious cycle of prophesy and fearful investigation which condemns all men to "a state like that of Prometheus," wherein their hearts are eternally "gnawed on by fear of death, poverty, or other calamity."⁷ The war of all against all is a war over hypotheticals: the future, once imaginable, becomes the grounds for conflict.⁸ This anxiety is alien to animals, because they are only interested in anticipating causal patterns they have observed before, not in inferring new possibilities from past experiences.

In arguing that Hobbes believes curiosity to be the difference-maker that leads to insecurity and to science, I aim to deflate Pettit's claim that for Hobbes "speech was the source of what made the human mind special, not just a sign of that special character."⁹ Pettit's fault lies in attributing to Hobbes the view

taking Hobbes's account of the origin of language to be, analogously to his account of the origin of society, an idealization rather than a historical reconstruction. Much in the way Hobbes encourages his reader to extract the social characteristics away from man in the state of nature but otherwise imagine him as having his faculties intact, Hobbes makes his case for the logical (not historical) primacy of curiosity over language through the supposition of a pre-lingual "fictitious solitary" (I. C. Hungerland and G. R. Vick, "Hobbes's Theory of Language, Speech and Reasoning," in *Computatio, Sive, Logica*, by Thomas Hobbes, ed. I. C. Hungerland and G. R. Vick [New York: Abaris Books, 1981], 25).

- 6 Thomas Hobbes, *Leviathan: With Selected Variants from the Edition of 1668*, ed. E. Curley (Indianapolis and Cambridge: Hackett, 1994), I.XI, 51.
- 7 *Ibid.*, I.XII, 52. Note that Prometheus' name comes from the Greek analogue for the Latin *prudentia*, from *pro-uidens*, "fore-seeing." See L. Michaelis, "Hobbes's Modern Prometheus: A Political Philosophy for an Uncertain Future," *Canadian Journal of Political Science* 40, no. 1 (2007), 101–127, which explores Hobbes's use of the Prometheus myth as a commentary on curiosity. The other significant discussion of curiosity I have found (thanks to Juhana Lemetti) is in the unpublished dissertation of Robin Bunce, entitled "Francis Bacon, Thomas Hobbes, Philosophy, and History" (Downing College, Cambridge University, 2002). Along with giving a compatible characterization of Hobbesian curiosity, Bunce provides an interesting analysis of curiosity's role in Hobbes's account of religion.
- 8 Michaelis, "Hobbes's Modern Prometheus: A Political Philosophy for an Uncertain Future."
- 9 Pettit, *Made with Words*, 144n3. While there was some disagreement among Hobbes's contemporaries about the state of the bestial soul, there was widespread agreement with Aristotle that language was unique to human beings. While animals might signify desires and warnings to each other using noises, such communiqués were natural, rather than artificial, expressions of passion. Gassendi described the animal voice as "given by nature, to mark out some internal passion of the soul, like pleasure, sorrow, love, anger, etc.," and contrasts it with the artificial signs used by humans to communicate. Thus insofar as Hobbes believes humans

that classificatory thought—the power to reckon using names that refer to universals rather than particulars—is concomitant with “active thought,” a term Pettit (but not Hobbes) employs to signify uniquely human control over the succession of conceptions in the mind. While science is undoubtedly only possible through language, I argue that what makes the use of artificial marks as names possible in humans (and humans only) is curiosity. To make my case I show how curiosity allows for the emergence of what Hobbes calls *original knowledge* without the employment of words. It is here, I suggest, that science starts.

In the following section I review Pettit’s language thesis, focusing particularly on his claim that Hobbes conceives of active thought as an effect, rather than a cause of our linguistic capacity. In Section III I introduce Hobbes’s concept of curiosity, arguing that his notion of a hunger for, or delight in, causal inferences presented in his earlier works (especially *Elements of Law*) gives way in *Leviathan* to a better articulated theory of curiosity as an appetite for unidirectional inferences from causes to effects. In Section IV I demonstrate that curiosity, in its role as a logical antecedent of language, explains the so-called active thought that is doing much of the work in Pettit’s account, motivating the development of natural and civil science. Finally in Section V I argue that curiosity is not only necessary for language but also requisite for that other uniquely human trait, anxiety about the future.

2 Pettit’s Language Thesis

While citing in passing its priority to language, Pettit dismisses curiosity as an *ad hoc* move made by Hobbes in order to answer the thorny question of why animals do not speak. “Hobbes’s answer to this challenge,” Pettit recognizes, “is to say that there is one natural appetite, curiosity, that distinguishes human beings from other animals, and that it was necessary for the invention of language.”¹⁰ He takes this explanation of the cause of language to be a primitive one, and expresses disappointment that Hobbes nowhere clarifies the relationship between words and “the desire to explain and explore.” All in all, it is,

to be demarcated by their ability to communicate rational thought using signs, he can be placed in a well-established tradition of seventeenth-century thought. See A. Guerrini, “The Ethics of Animal Experimentation in Seventeenth-Century England,” *Journal of the History of Ideas* 50, no. 3 (1989), 391–407; and R. W. Serjeantson, “Passions and Animal Language, 1540–1700,” *Journal of the History of Ideas* 62, no. 3 (2007), 425–444.

10 Pettit, *Made with Words*, 26.

Pettit maintains, “obscure how a desire to know causes or effects might have prompted the appearance of words in the first place.”¹¹ He briefly speculates that perhaps Hobbes saw language as emerging through what we would today call cultural evolution,¹² and then moves on to consider the role of words in constructing the Hobbesian man. “Language,” Pettit writes, “provides the magic that enables us to jump the limitations of the natural, animal mind”;¹³ and more dramatically, “It is as if the advent of speech and the knowledge that came with it precipitated a secular fall: an expulsion from the tranquil world of private concern for the present into a turbulent existence where people sustain one another in frenzied anxiety about relative power.”¹⁴ His dismissal of curiosity is reasonable if indeed Hobbes believes “the secular fall” to be brought about by language, rather than by any of curiosity’s other downstream effects—that is, if language is necessary and sufficient to explain why humans are the only animals to develop a “frenzied anxiety about relative power.”

Pettit argues that Hobbes believes language to be a technology developed by humans, and that this development alone has transformed the human mind that, prior to the advent of speech, was the same as “the natural mind”¹⁵ of animals. The natural mind is made up of cognitive and motive powers, which operate mechanically to generate mental discourse¹⁶ based on the sensory imprints made by the external world on the body of the organism. The unruly crowd of sensations that make their way to the brain by way of the spirits are organized based on patterns of association between ideas.¹⁷ The passions bring certain conceptions to the attention of the mind as desirable, and associations based on past experience automatically follow, allowing for the natural mind

11 Ibid., 27.

12 Pettit mentions curiosity once more, noting that it is the only way humans differ from other animals in regards to their appetite, but quickly dismisses it, arguing instead that the “set of passions that [...] are present only in human beings” are “present there by grace of what language makes possible” (Pettit, *Made with Words*, 90).

13 Pettit, *Made with Words*, 3.

14 Ibid., 95–96.

15 Ibid., 26.

16 While “discourse” may seem to beg the question in favor of the language thesis, note that Hobbes’s own use of the term “discourse of the mind” refers to connected chains of conceptions, rather than names or marks. See M. P. Adams, “The Wax and the Mechanical Mind: Reexamining Hobbes’s Objections to Descartes’s *Meditations*,” forthcoming in *British Journal for the History of Philosophy*.

17 I use this term, following Pettit, anachronistically—it is not used to describe the connection of ideas until the fourth edition of John Locke’s *Essay Concerning Human Understanding* in 1700.

to make connections between desired effects and their possible causes. Of this sort of “passive association of ideas” Pettit writes, “it is important that we do not think of the process as one that is voluntarily directed.”¹⁸ What we may, in line with Pettit’s vocabulary, call the “active association of ideas” only becomes possible with language.

Indeed, Pettit sees language as providing the mind with two modes of thought, active and classificatory, which he tends to merge into one novel product: “active classificatory thought.”¹⁹ Pettit suggests that active thought is a sort of intentional force that transcends Hobbes’s mechanical picture of the mind, in multiple places using the example of Rodin’s famous sculpture *The Thinker* in an attempt to ostensibly define what he means.²⁰ Classificatory thought is more explicitly defined: “I will have a general conception of something,” Pettit writes, “insofar as I contemplate it as the bearer, or referent, or *denotatum* of a general or common name.”²¹ Names allow particular phantasms to be subsumed under a conception of a general type about which knowledge claims can be made and tested.

Pettit argues that words formalize subliminal awareness of similarities between particulars, allowing them to play an explicit role in conscious understanding.²² He argues that generative, non-mechanical, desire-driven chains of associations are only possible when general terms allow for the use of propositions. Classificatory thought allows not only for the use of marks to preserve in memory the grouping together of like cases under a general conception, but also for signs, which allow for the communication of our thoughts to others. It is in this capacity that classifications function as tools for active thinking, by allowing for inner dialogue. Once men and women have language, Pettit writes, “They can now set themselves questions [...] and undertake to consider [...] what follows from what, in a voluntary or intentional search for the answers to their questions.”²³ Active thought, even unvoiced, depends on language as much as does interpersonal deliberation and communication.

Immediately problematic in this account is the lack of any category corresponding to Pettit’s “active thought” in Hobbes’s own work. Pettit suggests that Hobbes can distinguish humans from other animals on the grounds that, after

18 Pettit, *Made with Words*, 15.

19 *Ibid.*, 26, 17, 31.

20 *Ibid.*, 24, 37.

21 *Ibid.*, 31.

22 Pettit’s invocation of the distinctly non-seventeenth-century notion of unconscious priming is unnecessary and, I think, unhelpful, but I will not address that here.

23 *Ibid.*, 37.

the advent of language, “People will no longer just undergo thought processes, as when this or that strikes them, or they are swept along in this or that train of associative or even regulative thought.”²⁴ Instead, they actively pose questions to themselves: “I can [...] invite myself to ponder the answers, and take up that invitation in an intentional effort to deal with the questions.”²⁵ It is hard to accord this concept of an active power of the understanding to a materialist thinker notorious for disdaining the idea of free will, and one can imagine that Hobbes’s intense aversion to metaphor would be provoked by Pettit’s reliance on Rodin to sculpt the concept. What can it mean, within the framework of Hobbesian psychology, to think in an “active, voluntary way”?²⁶

The closest equivalent to something like pondering within Hobbes’s mechanical system is deliberation, the “alternate succession of appetites, aversions, hopes and fears.” But this, Hobbes writes, “is no less in other living creatures than in man; and therefore beasts also deliberate.”²⁷ Since animals deliberate, they also have *will*, which Hobbes defines as the endpoint of deliberation, that is, the last conception before a voluntary act. Pettit’s use of the modifier “voluntary” to explain “active” thought can thus only mislead, since for Hobbes a voluntary action is simply one that proceeds from the will.²⁸

Taking our cue from Pettit’s discussion of association, we can find in Hobbes a distinction between associative thought that is “unguided, without design, and inconstant” and that which is “regulated by some desire, and design.”²⁹ In both cases ideas follow each other in trains based on previous experience. In the latter case, the aims of the individual (which result from their personal tastes, ambitions, desires, and aversions) have caused certain connections between ideas to be made more strongly than others, and of more “quick return,” causing some chains of ideas to dominate. This division only shows, however, that in the absence of a faculty of the will voluntary thought just *is* regulated thought, and is voluntary only in the sense that the vested interests of the animal impact chains of ideas and resulting actions. There is no higher “active, voluntary profile” of thought “in the active fashion represented by Rodin’s sculpture.”³⁰ Deliberation is neither an especially human phenomenon nor an especially active one.

24 Ibid., 38.

25 Ibid.

26 Ibid.

27 Hobbes, *Leviathan*, I.VI, 28.

28 For an excellent discussion of deliberation and the will in Hobbes see Q. Skinner, *Hobbes and Republican Liberty* (Cambridge: Cambridge University Press, 2008), 20–25, 90–91.

29 Hobbes, *Leviathan*, I.III, 9.

30 Pettit, *Made with Words*, 37.

There is, however, a subtype of regulated thought that comes close to Pettit's notion of "a voluntary or intentional search" for original answers, and that is unique to humans: Hobbes describes it as "when, imagining anything whatsoever, we seek all the possible effects that can by it be produced."³¹ This sort of train of imaginations is not guided by any base lust, but by an intellectual hunger: the desire for causal inductions. Nonetheless in the following section I illustrate that this hunger, curiosity, is for Hobbes *just another appetite*, identical in kind to the appetites that contribute to what Pettit calls the passive association of ideas. I conclude that what Pettit calls active thought is, instead, a subtype of thinking that is different from animal thought in as much as humans are different—they are curious creatures—but is no less mechanical.³² After I introduce Hobbes's concept of curiosity I will, in Section IV, examine whether this uniquely human passion for seeing "what follows from what" does in fact, as Pettit insists, rely on language, even though it does not activate the mind in the sense he claims.

3 Hobbesian Curiosity

Hobbes was not original in emphasizing curiosity as the major difference between humans and other animals. The notion has resonances in ancient thought—most strikingly in Apuleius' fable of the Golden ass³³—and in interpretations of the Genesis account of man's fall.³⁴ Rejuvenated by

31 Hobbes, *Leviathan*, LIII, 9.

32 I am not here claiming that Hobbes's psychology is *entirely* mechanical, but rather that it is no less so in the case of human beings than other animals. J. Barnouw, "Hobbes's Psychology of Thought: Endeavors, Purpose and Curiosity," *History of European Ideas* 10 (1989), 519–545 argues that the endeavors which constitute curiosity are emergent insofar as their purposiveness is more than an aggregate of matter in motion. It is true that Hobbes does not explicate the mechanics of the appetites—their motion is taken as primitive (Barnouw argues convincingly that Hobbes is here influenced by Aristotle). This non-mechanical aspect of Hobbes's psychology does not, however, give grounds for differentiating human thought from that of beasts.

33 See P. G. Walsh, "The Rights and Wrongs of Curiosity (Plutarch to Augustine)," *Greece & Rome* 35, no. 1 (1988), 73–85.

34 In *De Genesi contra Manichaeos*, Augustine writes of Genesis 3.14 and the serpent's words to Eve that they "surely symbolize the third kind of temptation, namely, curiosity [*curiositas*]" (2.18.27, 122). Compare 1.23.40, 87 and 2.26.40, 136–7 in *On Genesis against the Manichees; and, On the Literal Interpretation of Genesis: An Unfinished Book*, trans. R. J. Teske (Washington: Catholic University of America Press, 1991).

Scholastic writers following Augustine, the concept of curiosity displayed a remarkable instability during the early modern period,³⁵ signifying either an inappropriate lust for information (including gossip) or an admirable intellectual appetite. Daston and Park accord Hobbes a significant role in the coronation of curiosity as the queen of the passions, insofar as “early modern curiosity replaced the earlier dynamic of self-dissipating passivity with one of self-disciplined activity, all faculties marshaled and bent to the quest.”³⁶ In his answer to the preface of Davenant’s *Gondibert* (1650), Hobbes favorably contrasts those with a strong appetite for “the curiosity of furnishing their memories with the rarities of nature” with those who make “provision onely for their ease, and sensuall delight.”³⁷

It is this generally positive account of curiosity that is found in the first section of the *Elements of Law*, where curiosity is defined as an “appetite of knowledge.”³⁸ Individuals who are well endowed with curiosity aim at knowledge for its own sake: its obtainment becomes a pleasure in itself, and the curious are interested in causes and effects that may not have any bearing on their own welfare. Since other animals are dominated by sensual appetites for immediate pleasures, curiosity differentiates man from beast: “For when a beast seeth anything new and strange to him, he considereth it so far only as to discern whether it be likely to serve his turn, or hurt him, and accordingly approacheth nearer to it, or fleeth from it: whereas man, who in most events remembereth in what matter they were caused and begun, looketh for the cause and beginning of everything that ariseth new unto him.”³⁹ Note that curiosity affects human nature in two ways here. On the one hand, it gives people an interest in the unknown, even when it does not directly affect their welfare. On the other, it makes humans look for causal relations more generally to a greater extent than other animals.

When Hobbes states that curiosity is a delight in knowledge, what sort of knowledge does he mean? *Elements of Law* provides two options: *knowledge*

35 See K. Pomian, “Curiosity and Modern Science” (Sylvia Lemmie England Memorial Lecture, Victoria and Albert Museum, January 1993), which includes an exploration of the role of curiosity in the thought of Hobbes’s contemporaries, most notably Mersenne and Descartes.

36 L. Daston and K. Park, *Wonders and the Order of Nature, 1150–1750* (New York: Zone Books, 1998), 308.

37 Thomas Hobbes, “The Answer of Mr Hobbes to Sir William Davenant’s Preface before ‘*Gondibert*,” in Sir William Davenant’s *Gondibert*, ed. D. F. Gladish (Oxford: Clarendon Press, 1971), 45–55, 54.

38 Hobbes, *Elements of Law*, I.9, 45.

39 *Ibid.*, 49.

original, or *science*. The former denotes those chains of conceptions based on past experience; “the experience of the effects of things that work upon us from *without*.”⁴⁰ Unlike science, which Hobbes defines as “knowledge of the truth of propositions, and how things are called,” original knowledge does not require the use of names, and so does not take a propositional form.⁴¹ Nonetheless original knowledge allows for conjectures, or probabilistic inductions, though they “*concludeth nothing universally*.” In his discussion of curiosity Hobbes does not distinguish it on linguistic grounds from the sort of inductions that animals gather through experience, a result of what he calls *prudence*. Instead, curiosity is differentiated as a form of knowledge which takes as its targets all experienced causes and their possible effects rather than just those that impact the animal.

Hobbes of course does not attribute to humans a discrete ontic substance in order to explain cognition, and emphasizes that sense and thought occur by the same material means in all animals: “the mind of man has no other motion.”⁴² Instead curiosity must be seen as an emergent property of matter, as Nerney has aptly characterized it, which occurs in human as opposed to animal bodies and which, like other appetites, has its cause in sense and imagination.⁴³ In Hobbes’s materialist system action is initially sparked by an imperceptible force of appetite or aversion that Hobbes calls endeavor (*conatus*). That curiosity is so embodied is made explicit by Hobbes’s observation that when curiosity wanes due to an increase in the strength of other, more sensual, appetites, there is a corresponding “grossness and difficulty of the motion of the spirit about the heart”—the locus, for Hobbes, of the passions.⁴⁴ Curiosity thus functions like the other appetites—psycho-physiologically—to motivate the search for original knowledge, though its targets are, unlike those of the other appetites, nonspecific.

40 Hobbes, *Elements of Law*, I.6, 24.

41 Ibid.

42 Hobbes, *Leviathan* I.III, 11. Samantha Frost calls Hobbes’s a variegated materialism, “that acknowledges that matter can be taken in distinctive forms and be organized in varied and particular ways – a materialism in which some such distinctive forms and organization of matter can think” (S. Frost, “The Matter of Self-Consciousness,” *Political Theory* 33, no. 4 (2005), 495–517). Lemetti has used a novel analysis of Hobbes’s concept of imagination to temper characterizations of him as a materialist (J. Lemetti, “The Most Natural and the Most Artificial: Hobbes on Imagination,” *Hobbes Studies* XVII (2005), 46–71).

43 G. Nerney, “*Homo Notans*: Marks, Signs, and Imagination in Hobbes’s Conception of Human Nature,” *Hobbes Studies* 4 (1991), 53–75.

44 Hobbes, *Elements of Law*, I.10, 50.

According to Hobbes's account in *Elements of Law*, what differs in humans is the interest in effects which, in and of themselves, are not the target of any passion or appetite. For all animals desire to know about causal relations that are relevant to their welfare, and also seek out the means to effect changes that are in line with their goals: in this respect Hobbes's account of both human and animal cognition is deeply teleological.⁴⁵ This basic sort of original knowledge from experience motivates action and allows for conjecture (about the past) or prudence (about the future). Like the other appetites, curiosity conjoins particular conceptions drawn from experience in a mechanical manner.

Leviathan presents a more technical definition of curiosity as not just a delight in causes but an appetite for a particular kind of original knowledge: that of *hitherto unexperienced* effects of experienced causes. Hobbes contrasts curiosity about the effects of known causes with a prudential interest in the causes of known effects. Unlike other animals, when man conceives of anything whatsoever, he immediately inquires into "the consequences, and what effects he could do with it."⁴⁶ While prudence is in the service of the pursuit of pleasure or the avoidance of pain, and while it can lead to the contemplation of events far in the future, it does not allow for original hypotheses about cause and effect. Curiosity, on the other hand, brings with it the capacity not only to remember causal relationships once observed but also to imagine all the possible results of a given cause: "when imagining any thing whatsoever, we seek all the possible effects, that can by it be produced; imagine what we can do with it, once we have it."⁴⁷ Curiosity drives the creation of new associations, approximating, perhaps, the sort of active thought that Pettit recognizes as uniquely human.

This human appetite for original causal knowledge had long been noted by Hobbes—years before drafting *Leviathan* he wrote in *Anti-White*, his critique of Thomas White's *De Mundo*, that "some inquisitive [*curiosi*] persons have found no satisfaction in enjoying nature unless they have scrutinised her closely and known the causes of everything."⁴⁸ This taste for causal knowledge,

45 Barnouw, "Hobbes's Psychology of Thought," 527. *Pace* Pettit, who claims that "the natural mind that is common to beasts and humans is limited [...] it only develops its beliefs and forms its desires in an unregulated, non-intentional manner; those internal motions come and go without any intentional, desire-driven control" (*Made with Words*, 144).

46 Hobbes, *Leviathan* I.V, 20.

47 *Ibid.*, I.III, 9.

48 Thomas Hobbes, *Thomas White's 'De Mundo' Examined*, trans. H. W. Jones (London: Bradford University Press, 1976), XXX.15, 373. Latin interpolated from Thomas Hobbes, *Critique du De Mundo de Thomas White*, eds. J. Jacquot and H. W. Jones (Paris: Vrin-CNRS, 1973), 356.

Hobbes remarks there, leads directly to the development of names to make easier the project of comparing past phantasms (memories) and present ones. In the following section, I lay out Hobbes's argument that humanity's appetite for this type of original knowledge makes possible the scientific project of describing causal relations in propositional form.

4 Curiosity, Language, and Science

In the previous section, I argued that in Hobbes's mature formulation in *Leviathan* curiosity is an appetite for every *possible* effect of a cause, rather than simply those effects known, through past experience, to lead to beneficial ends. As Barnouw helpfully puts it, with curiosity "a different sort of technological imagination announces itself."⁴⁹ While other animals have an appetite for original knowledge that can forward the satisfaction of their goals, curiosity reaches beyond self-interested knowledge. In so doing it changes the way in which the connection of ideas functions, replacing a teleological structure with a more open-ended process in which the goal is neither synthesis (the tracing of steps from a cause to a known effect) nor analysis (the tracing of steps from a known effect back to its causes) but a pre-scientific discovery of new causal relations. Here I argue that language is possible because of this human capacity, through which the possible effects of an arbitrary vocable or written mark functioning as a sign can be envisioned.

Because Hobbes contrasts prudence with science, the generation of true propositions, it is easy to assume that language is required for causal knowledge. But Hobbes distinguishes original knowledge precisely on these grounds. He believes that animals have conceptions; that these conceptions can be linked together in causal chains that are preserved by memory, if far less weakly than those preserved in propositions; and that these chains can be renewed in the imagination by the residue of the phantasms that caused the initial conception.⁵⁰ Thus while conceptions are concrete, not abstract, the ability to recognize likenesses among particular conceptions allows animals to 'reckon' with concepts. Man too, Hobbes writes, "reckons without the use of words, which may be done in particular things, (as when upon the sight of any one thing, we conjecture what was likely to have preceded, or is likely to follow

49 Barnouw, "Hobbes's Psychology of Thought," 528.

50 See *Anti-White* XXX.10 for an extended consideration of causal thought in animals (Hobbes uses the example of nest-building in birds).

upon it).⁵¹ This prudential reckoning is indexical, provoked by sensation, and memory is the means by which “we take notice that it is *again*.”⁵²

While here Hobbes makes clear that memory is not reducible to propositional formulations of ideas but rather is possible without language, in *Leviathan* he emphasizes that language is required to secure complex chains of conceptions lastingly in the memory. While animals may have knowledge of concrete facts and events as well as regular relations between them, Hobbes limits *conditional* knowledge about patterns of cause and effect to human beings. In *Leviathan* he gives the example of the proposition “if the figure shown be a circle, then any straight line through the center shall divide it into two equal parts,”⁵³ noting signs (names) must be employed if such abstract conceptions and the relations between them are to be understood. While non-human animals are driven by their appetites to reckon about what to do on the basis of their experiences, only humans partake in this kind of thinking using signs (science). But two questions need to be distinguished here. The first is a how-question: how do humans think scientifically? The second is a why-question: why do humans think scientifically? Pettit believes the answer to both questions is language, and I wish to argue that he is right in regards to the first and wrong in regards to the second.

Anti-White provides Hobbes’s most complete discussion of causal thought. There he describes the dangers for humans and beasts alike in relying on their memories to determine the prudent course of action. Without the use of artificial means to strengthen the memory, prudential judgment is at the mercy of “the obscurity and fluctuation of the fancy” in memory.⁵⁴ Hobbes argues that the comparison of a present situation with a past one occurs in three stages: phantasms of the past and the present are reviewed to generate a third, which consists of “the difference between both.” Thus, to predict the effects of a present cause, the animal must rely on its ability to compare the clear phantasm generated through direct sensation with the degenerated one stored in memory. Here animals do not have conceptions of cause-effect dyads of abstract terms, but merely of particulate chains of ideas stored in the memory. Their assessment of the possible effects of an immediate cause relies on the drawing of a comparison between the current situation and a past one, two concrete

51 Hobbes, *Leviathan*, I.V, 19.

52 Hobbes, *Elements of Law*, I.3, 11.

53 Hobbes, *Leviathan*, I.IX, 30.

54 Hobbes, *Critique du De Mundo*, XXX.14, 355; my translation of “propter imaginatiois obscuritatem, & fluctuationem,” differing from Jones who renders *imaginatio* as “concept” (372).

facts of which they have original knowledge (though the quality of that knowledge may vary).

Humans, on the other hand, can avail themselves of conditional knowledge, formed in propositions that abstract causal relations from particular experiences—that is, they can think about causal relationships using words to signify things. Even if their memory of the details of past events becomes hazy, by using language they can preserve details about causal relationships that they at one point knew viscerally: “they have devised ‘notes,’ especially *names* which, in the place of impressions that had disappeared, would suggest like ones to them.” Hobbes makes explicit that, although they can signify, beasts cannot do as man does “because, owing to their physical constitution, they possess no pleasure other than the carnal, by which they would be able to be concerned with their impressions.”⁵⁵ Hobbes’s account of curiosity in *Leviathan* helps explain why this is so.

Recall that humans are uniquely interested in the possible effects of observed causes that do not have an immediate bearing on their experience. Their hunger for any and all causal information gives them an impetus to store away the causal relations they observe, even if they are not immediately salient to their circumstances. This appetite is fundamental and pre-linguistic. When people imagine possible futures, possible effects of present causes, they are not availing themselves of general terms to build propositions. Rather, they are reckoning in a broader context in the manner that other animals do when thinking about what concerns them directly—using past experience to imagine future states. Language is employed precisely for its potential to ease this process by codifying original knowledge into a form that can resist the destructive effects of memory.

Curiosity supplies not only the motivation for the use of language but also makes the particular technology of signification possible. For example, Hobbes writes that while “brute beasts [...] having the providence to hide the remains and superfluity of their meat, [but] nevertheless want the remembrance of the place where they hid it,” man imagines that just this sort of problem will occur and takes measures to stop it: “man, who in this point beginneth to advance himself above the nature of beasts, hath observed and remembered the cause of this defect, and to amend the same, hath imagined and devised to set up a visible or sensible mark.”⁵⁶ Marking of the spot, leaving a physical or verbal cue, is a practice that emerges from humans’ ability to envision the possible effects of their employment of a vocable or written mark: “our perception

55 Hobbes, *Ibid.*, XXX.15, 373.

56 Hobbes, *Elements of Law*, I.5, 18.

or imagination (conception) of the reason for applying universal names becomes the cause of their invention and use.”⁵⁷

While animals may produce vocables or actions that are communicative—for example, growling territorially—Hobbes writes in *De Homine* that these signs “are not speech as they are not constituted by the will of these animals, but burst forth from the strength of nature from the particular fears, joys, desires, and other passions of each of them.”⁵⁸ Baser appetites than curiosity motivate animal communication, and it is limited accordingly. Animals are able, through habituation, to understand and respond to marks—in Hobbes’s language, to use natural signs that become familiar through experience, “as clouds are signs of rain to come, and rain of clouds past.”⁵⁹ A dog who heeds a whistle does not understand his master’s intentional mark, but rather uses his own judgment to recognize the whistle as a sign, “the Event Antecedent, of the Consequent; and contrarily, the Consequent of the Antecedent, when the like Consequences have been observed, before.”⁶⁰

For his master, however, the sign is of a very different kind—an *arbitrary* sign, which we humans “make choice of at our own pleasure, as a bush hung up, signifies that wine is to be sold there.”⁶¹ While animals may make use of regularly occurring marks, such as a rock formation by a favorite food source or the whistle of a human friend, they cannot envision a hypothetical causal relation as a person does when it occurs to them that a bush might communicate to others the presence of wine.⁶² As Ross has put it, “What animals lack is the capacity to use words as *notes* – the creative activity of giving names to one’s thoughts.”⁶³ People use signs reflectively, endlessly curious about what can be done with the material at hand, and therefore are natural wordsmiths. This is

57 Hungerland and Vick, “Hobbes’s Theory of Language, Speech and Reasoning,” 95.

58 Thomas Hobbes, *Man and Citizen*, trans. C. Wood, T. S. K. Scott-Craig, and B. Gert (Garden City: Anchor Books, 1972), X.1, 38.

59 Hobbes, *Elements of Law*, I.4, 15.

60 Hobbes, *Leviathan*, I.III, 10.

61 Thomas Hobbes, *Elements of Philosophy. The First Section, Concerning Body* in *EW*, I, I.2, 14.

62 The idea that animals can use natural but not artificial signs was common amongst early modern theorists. John Ray (1691) for example, maintained that while animals could not use words as signs of things they could use natural signs (i.e., barking) to signify (Serjeantson, “The Passions and Animal Language,” 430–431).

63 G. M. Ross, “Hobbes’s Two Theories of Meaning” in A. E. Benjamin, G. N. Cantor and J. R. R. Christie, eds, *The Figural and the Literal: Problems of Language in the History of Science and Philosophy, 1630–1800* (Manchester: Manchester University Press, 1987), 31–57, 46.

due to a unique impetus to signify via artificially crafted signs, rather than merely a unique capacity for thinking in universal names.⁶⁴

Finally, we can make sense of why Hobbes refers to humans' ability to "by words reduce the consequences he finds to general rules" as simply another "degree" of curiosity.⁶⁵ People's propensity for immediately inquiring into the possible consequences of any cause leads them to transform original knowledge into "theorems" or "aphorisms," which in turn allow them to think rationally: for

reason is not [...] gotten by experience only, as prudence is, but attained by industry, first in apt imposing of names, and secondly by getting a good and orderly method in proceeding [...] to syllogisms, which are the connexions of one assertion to another, till we come to a knowledge of all the consequences of name appertaining to the subject at hand; and that is it men call SCIENCE.⁶⁶

The motivation to employ abstract terms to generate conditional knowledge about causes comes from an interest in how things work generally, beyond the immediate circumstances that the individual finds himself in. The power to employ an artificial sign comes from the ability to "imagine what we can do with it, once we have it."⁶⁷ As Hobbes puts it, "Words reduce the consequences [man] finds to general rules, whereof one may be added unto, or subtracted from another."⁶⁸ Words are the means by which scientific knowledge is pursued; curiosity is what makes it an end at all. Without language, curiosity would still give rise to original knowledge not directly relevant to the flourishing of the organism. With curiosity, that probabilistic and intuitive intellect is formalized into propositions that can be assigned a truth-value.⁶⁹

64 It is worth noting that if this is correct, humans who lack curiosity are intellectually comparable to animals. I touch on this implication in my conclusions. Another way to put this is that human beings who lack curiosity will simply use words as natural signs, as animals do, rather than understanding them as names. As Lemetti has put it, "the artificiality of language unveils itself only through philosophical reflection" (J. Lemetti, "The Most Natural and the Most Artificial: Hobbes on Imagination," 59).

65 Hobbes, *Leviathan*, I.V, 20.

66 *Ibid.*, I.V, 21.

67 Hobbes, *Ibid.*, I.III, 9. See Nerney, "Homo Notans," for more on this point.

68 Hobbes, *Leviathan*, I.V, 20.

69 That said, science itself has an enormous practical power, which belies its roots in curiosity, the appetite for knowledge for knowledge's sake. Language that elucidates the relationships between concepts—"the knowledge of consequences, and dependence of one

To revisit Pettit's emphasis on "active, classificatory thought" in light of the above discussion, we can see that these two attributes of human cognition come apart. I have demonstrated that what we might call "active association," original knowledge that serves only to satisfy curiosity, is foundational for science, and that curiosity also allows for names, a technology adopted to further this project. In the following section I make a parallel case for curiosity's role in that darker human practice, strife, and show that here too it is curiosity more primarily than language that can explain humanity's insecurity, fearfulness, and bellicosity. "In painting such a gloomy picture of the predicament of human beings once they become equipped with language," Pettit argues, "Hobbes helps himself to a crucial, unargued assumption [...] This is that people can only be satisfied with superiority and recognition of their superiority."⁷⁰ On the contrary, I argue, Hobbes has an argument for the inevitability of such insecurity that depends upon the role curiosity plays in his theory of human nature.

5 Curiosity and Insecurity

Pettit writes that for Hobbes language is the source of "three great capacities" and "one pathology"—along with making possible ratiocination, personation, and incorporation, speech makes humans think about the future, specifically about their future standing in relation to others.⁷¹ I agree with Pettit that language is, for Hobbes, essential to the abstract thought that is requisite for ratiocination, personation, and incorporation, though as argued in the previous section, I don't think it is their ultimate cause. Hobbes is quite clear that ratiocination is reckoning with words. Language also allows for the generation of contracts, both with others and with the sovereign, and is thus essential to the commonwealth. By settling the definitions of the terms that undergird the laws of the commonwealth, the sovereign makes civil society, and political science, possible.

fact upon another" (Ibid., I.V, 21)—increases man's ability to bring about the effects that he desires; as Hobbes puts it, "the light of human minds is perspicuous words, but by exact definitions first snuffed and purged from ambiguity; *reason* is the *pace*; increase of *science*, the *way*; and the benefit of mankind, the *end*" (Ibid., I.V, 26). But how scientifically one thinks, how accurately one accords words with things, depends on how much one hungers for truth, since "from the degrees of curiosity proceed also the degrees of knowledge among men" (*Elements of Law*, I.9, 46).

70 Pettit, *Made with Words*, 96.

71 Ibid., 142.

But Pettit further claims that the linguistic capacity “creates havoc in the realm of human passion, making monsters out of the simple animals that human beings might otherwise be.” His argument here relies on the constitutional role language plays in the sort of complex causal thoughts that get formalized by science, what Pettit calls active thought. To the qualified extent that Pettit’s designation can be made sense of in the context of Hobbes’s determinism, I agree that this human capacity offers some account of the inextricable “war of all against all.” However, I have shown that active associations should not be understood as voluntary or intentional propositional thoughts, as Pettit suggests, but rather as original knowledge about particular causes that results from a pre-linguistic appetite for certain cause-effect relationships. When words are employed, this original knowledge gets abstracted and formalized into the conditional propositions that Pettit takes as fundamental to human thought.

Pettit writes that “the identification of differences is only possible for a creature that has access to the words whereby classes are made available to thought and reason.”⁷² In fact, as discussed above, prudence relies entirely on animals’ ability to compare past and present phantasms, sense and decayed sense, and draw up, as new conceptions, the differences between them. Curiosity too, I have argued, uses conceptions of past particulars to imagine possible futures. It is this ability to imagine hypotheticals that allows for propositional thought employing universal names. If this is the case, curiosity not only precedes and explains the linguistic capacity but also explains what Pettit refers to as humanity’s pathology, insofar as insecurity is caused by the ability to differentiate between and compare future states. Humanity’s “expulsion from the tranquil world of private concern” was hardly a second, secular fall, but an inevitable state of exile. It was not the development of the technology of language that alienated men from other animals. Words are rather an ingenuous, and terrible, coping mechanism for the sociopathy of human nature.

In his 1954 essay “On the Basis of Hobbes’s Political Philosophy” Leo Strauss anticipates Pettit, arguing that speech is “the origin of the social mechanism”⁷³ that demarcates Hobbes’s world into “that which exists independently of man’s making and that which exists by virtue of man’s making.”⁷⁴ While Strauss sees speech as the technology by which man distinguishes himself from animals, however, he emphasizes that it is curiosity that leads man to distinguish

72 Ibid., 93.

73 L. Strauss, *What Is Political Philosophy? And Other Studies* (Chicago: University of Chicago Press, 1988), 175.

74 Ibid., 182.

himself at all: “Man alone can consider himself as a cause of possible effects, i.e., man can be aware of his power; he can be concerned with power; he can desire to possess power; he can seek confirmation for his wish to be powerful by having his power recognized by others.”⁷⁵ I follow Strauss in arguing that an addiction to “the supposition of causes of all things” assures every human a rich imaginary life in which future safety is a constant concern. A feeling of security, according to Hobbes, can be obtained only when man is more powerful than his rivals—and then only precariously. As long as man submits to the superiority of another on any front, he risks losing his sustenance or even his life—if not today, he imagines, then perhaps tomorrow.

Pettit might offer the rejoinder that the uniquely human ability to foresee the future should allow man to choose to be peaceful rather than sanguinary. In *Elements of Law* Hobbes anticipates this objection, and poses the question himself: “Why [...] may not men, that foresee the benefit of concord, maintain the same without compulsion, as well as [animals]?”⁷⁶ He responds by emphasizing the aspects of human nature that keep human beings from living in civility with each other, contrasting man with “that little creature the bee, which is [...] reckoned amongst animalia politica.”⁷⁷ Bees, Hobbes argues, “aim every one at peace and food common to them all; men aim at dominion, superiority, and private wealth, which are distinct in every man, and breed contention.” Whilst in bees there is “no question of precedence in their own species,” man is concerned with his standing in relation to others, and has as a result anger and resentment towards his fellows. “By nature,” Hobbes darkly concludes, “we are not looking for friends but for honour or advantage from them. This is what we are primarily after; friends are secondary.”⁷⁸

Why is man incapable of simply enjoying what is available to him, and enjoying the company of others while he has it? In *Leviathan* Hobbes defines power as “the present means to obtain some future apparent good.”⁷⁹ By definition power is something of which people are more cognizant than animals, since only humans, “when imagining anything whatsoever [...] seek all the possible effects that can by it be produced.”⁸⁰ Note that here what allows

75 Ibid., 176n.

76 Hobbes, *Elements of Law*, I.19, 102.

77 Hobbes is here referring to Aristotle's *History of Animals* I, I (388a8–13). See also Hobbes, *Leviathan*, XVII.6–13, 108–109.

78 Hobbes, *On the Citizen*, ed. and trans. R.Tuck and M. Silverthorne (Cambridge: Cambridge University Press, 1998), 22.

79 Hobbes, *Leviathan*, I.X, 41.

80 Ibid., I.III, 9.

humans to see the machinations of power at work is not the ability to differentiate and compare types, but to see all possible future effects of present causes. In order to assure that he will be able to satisfy his desires, man competes with his fellows for dominance over the direction the future will take. To be anything less than the most powerful means to live in fear that one's own pursuit of pleasurable ends will be blocked by someone with "greater means." Due to man's capacity to envision alternative futures, he "cannot be content with moderate power: but he cannot assure the power and means to live well, which he hath at present, without the acquisition of more."⁸¹ Human must live with conditional knowledge of countless possible futures, many of which are terrifying.

Only the commonwealth, Hobbes concludes, can assure each person the ability to pursue his or her future without risk of theft or murder. Only by putting absolute power into the hands of a sovereign can the members of the commonwealth cease their competition to the death. As Strauss writes, "only after kindness or charity have ceased to be manifestly dangerous is man obliged to act kindly or charitably."⁸² The sovereign limits the set of possible effects that members of the commonwealth can envision. Even under the protection of the sovereign, however, man's nature remains the same, and his consistent anxiety about the future makes it certain that, to whatever extent inequality is possible within the commonwealth, he will aim to increase his own power.

"Natural concord, such as is amongst [bees]," Hobbes concludes, "is the work of God by the way of nature; but concord amongst men is artificial, and by way of covenant."⁸³ Hobbes believes that humans are, by their God-given nature, fundamentally different from animals in respect to power. Our pugnacity is not a product of any technology that we have developed, but is due to our curious nature. While an animal seeks to satisfy his carnal desires, man seeks to satisfy the appetites of the future self that he, alone, can envision, by amassing as much wealth and power as possible. His lust is for hoarding rather than having, and the nature of this wealth hardly matters: "Of those that have attained to the highest degree of honour and riches, some have affected mastery of some art; as Nero in music and poetry, Commodus in the art of a gladiator." For the Hobbesian man, curiosity is a merciless task-master, which banishes satisfaction and assures that felicity "consisteth not in having prospered, but in prospering."⁸⁴

81 Hobbes, *Ibid.*, I.X1, 47.

82 Strauss, *What Is Political Philosophy?*, 193.

83 Hobbes, *Elements of Law*, I.19, 102.

84 Hobbes, *Ibid.*, I.7, 30.

6 Conclusion

Due attention to curiosity should temper traditional readings of Hobbes's theories of human nature, as well as of the origins of language and science, and should encourage a reevaluation of his broader commitments. Pettit calls the claim that human beings can never be satisfied with equality Hobbes's "most implausible move," arguing that "nothing in his argument precludes that possibility."⁸⁵ I have shown that this portrait of humanity's social nature is quite coherent once the primacy of curiosity over language is taken seriously. Curiosity is no mere *ad hoc* move, but is threaded throughout Hobbes's physiological, psychological, and socio-political treatments of humanity. It is true that under this reading Hobbes's is a less dramatic departure from his detested Scholastic predecessors, from Descartes, and from the Enlightenment thinkers who would follow him insofar as he, too, locates humanity's unique condition in its natural powers of mind.⁸⁶ Nonetheless, while not as radical as Pettit might suggest, under my view Hobbes's approach remains revolutionary in its recognition of the constructive power of language in not only the political but also the private mental life of human beings. Rather than eclipsing the essential character of curiosity, however, language is its helpmeet.

Contemplating the most frequent impairments to human happiness, Hobbes notes that man damns himself in "setting his course, vain-glory pressing him, towards the contemplation of things already secured."⁸⁷ He compares man to the great Babylonian king Nebuchadnezzar, who conquered large chunks of the Egyptian empire; built for himself an exquisite royal palace; and constructed the Hanging Gardens of Babylon, one of the seven wonders of the ancient world, to remind his homesick wife of Persia. Proud of his accomplishments Nebuchadnezzar rested, and thereby incurred the wrath of God. While he "congratulated himself on the dimensions of his own power, his joy was short-lived, for he had only the mind of a beast and was later deprived even of a human body."⁸⁸ According to the Book of Daniel, upon losing his curiosity the king lost his reason, and lived for seven years in the wilderness like an animal: "He was driven away from men, and did eat grass as oxen, and his body

85 Pettit, *Made with Words*, 96.

86 Pace Pettit, *Made with Words*, 28–29.

87 Hobbes, *Thomas White's 'De Mundo' Examined*, XXXIX.1, 482.

88 *Ibid.* Contrast Hobbes's reading with the traditional view exemplified by Edmund Spenser, who, in *The Faerie Queene*, locates "that great proud king of *Babylon*" as a prisoner in the "Dongeon mercilesse" of the House of Pride; *The Faerie Queene*, ed. T. P. Roche, Jr. (London: Penguin, 1978), I.V.46–7.

was wet with the dew of heaven, til his hairs were grown like eagles' feathers and his nails like birds' claws."⁸⁹

"In sum," Hobbes moralizes, "whatever reason precludes a runner from performing well on the track, [this] same reason may prevent a person from achieving prosperity in this life."⁹⁰ A study of curiosity across Hobbes's works should transform the traditional image of Hobbesian man racing to outpace his peers out of mortal terror or fundamental selfishness. In his taxonomy of the passions in *Leviathan*, Hobbes paints a lighter portrait of man's "appetite of knowing the cause": both the passion accompanying the apprehension of novelty and that resulting from the "imagination of a man's own power and ability" are subsumed under the heading "Joy."⁹¹ Man distinguishes himself as the animal whose mind simply cannot stop moving, for whom the novel continuously becomes the foundational—a fitting portrait of the philosopher in the early modern age.

89 Dan. 4:33, King James Version.

90 Hobbes, *Thomas White's 'De Mundo' Examined*, XXXIX.1, 482.

91 Hobbes, *Leviathan*, I.VI 41.