The Political Science Reviewer • Volume 44, Number 1 • 2020
© 2020 The Board of Regents of the University of Wisconsin System

Virtue and Vice: Francis Bacon on the Use of Comedic Jest

Erin A. Dolgoy, *Rhodes College*
Kimberly Hurd Hale, *Coastal Carolina University*[*]

Francis Bacon (1561–1626) is best known as an advocate for human progress and the progenitor of the project that develops into what we understand as modern science. He is deeply concerned with the advancement of human learning and how knowledge develops and is shared. His lifelong project, known as the Instauration, proposes to examine rigorously and to challenge all aspects of human learning. The Instauration requires "a total reconstruction of sciences, arts, and all human knowledge raised upon the proper foundation."[1] Bacon introduces a new method of learning, which he calls true induction, and suggests a "new rhetoric," with a focus on sharing the discoveries of true induction.[2] Skillful rhetoric includes the judicious use of jests. Comedic in nature, jests prove to be valuable yet dangerous tools of persuasion. This article examines Bacon's account of jest, its relationship to wit, and Bacon's conclusion that while comedy is best understood as a philosophic vice, it may be used as a political virtue.

In the sixth book of his *De Augmentis*, in *Tables of Antitheses of Things*, Bacon presents four arguments in favor of and five arguments against the employment of a jest—which he refers to as "a satirical simile" or the ability "to turn any serious matter into" an object of ridicule.[3] In his "Table of Jests," Bacon acknowledges that jests are an essential tool of the orator or rhetorician. If used well,

[*]We would like to thank Travis Smith for organizing both this symposium and the American Political Science Association meeting panel where we presented a draft of this essay, Richard Avramenko and the two anonymous reviewers for their extensive editorial recommendations, and Francie Ratner for her thoughtful feedback.

they keep the mind refreshed, are politic, and may reveal uncomfortable or otherwise hidden truths. To the contrary, however, Bacon also asserts that individuals who employ jest are despised "hunters after deformities and prettinesses," who "trick" their audiences and "wash away . . . the real importance of things"; he accuses them of being superficial liars, afflicted by "childish levity."[4] The purpose of *Tables of Antitheses of Things*, Bacon explains, is to prepare and harness "the utmost force of the wit."[5] Wit, which Bacon understands as a certain quickness and dexterity of the intellect, facilitates the effective use of jest. As this article argues, Bacon understands that jest may be harmful to the genuine pursuit of knowledge and truth; therefore, the use of jest should be reserved for those who can discern the proper targets, contexts, and subjects of ridicule, and who understand the dangers and consequences of jesting.

Rhetoric is a centerpiece of Bacon's own education and of his political thought. He is frequently recognized for his intelligence and wit.[6] William Rawley (1588–1667), Bacon's secretary, private chaplain, biographer, and friend, describes Bacon as a man who exhibits "sharpness of wit, memory, judgment, and elocution."[7] As with any sixteenth-century college-educated aristocrat, Bacon's own education, Lisa Jardine explains, heavily focused on Aristotle's inductive model, drawing on subsequent developments from Petrus Ramus (1515–1572).[8] Some studies, most notably works by Brian Vickers and Wilbur Samuel Howell, examine Bacon's employment of Cicero's rhetorical form,[9] while other studies examine Bacon's anti-Ciceronian pro-Tactician style[10] and his Stoic persuasion more generally.[11] Bacon understands his own wit as fortuitous; he has a natural intellectual capacity that has been educated by his circumstances and cultivated by his own decisions. Wit, as Bacon uses the term, refers to different manifestations of intellectual dexterity made public through one's employment of rhetoric. Jest, in Bacon's time as in our own, occupies a prominent place in successful rhetoric. While many studies grapple with Bacon's relationship to the rhetorical arts traditions, this analysis is concerned neither with genealogy nor with Bacon's employment of

rhetoric in his own prose. Instead, we examine the more specific topic of Bacon's treatment of the benefits and dangers of jest as a tool for the transmission of learning in the spheres of both politics and science.

This article builds on Richard Serjeantson's discussion of "the art of rhetoric [which] was lovingly cultivated as the supreme means of persuasion by writers, preachers, and politicians,"[12] and on Marc Coogan's argument that Bacon's contribution to the development of rhetoric is his focus on faculties or consequences rather than on a strict adherence to the rhetorical teachings fixed into handbooks, the two most prominent of which were written by Philip Melanchthon and Rudolph Agricola.[13] These handbooks, which regulate rhetoric during Bacon's own time, delineate the different types of rhetorical models and the appropriate rhetorical devices and tones to accompany specific topics and situations. Coogan explains that Bacon's emphasis on truth and outcome influences his rhetorical choices. We can see these contingencies in Bacon's discussion of wit and in his "Table of Jests."

The argument of this article follows in three sections. First, we discuss the relationship between wit and learning, including the role of wit in determining one's ability to jest well. In the next two sections, we discuss the improper and proper place of jest in persuasive speech. Based on Bacon's analysis of jest, this article posits that jest used in the context of philosophy or science is a vice, because jest obfuscates truth and impedes the pursuit of learning. In the context of politics, however, jest may be a virtue, as it is an essential tool in the art of persuasion, which, if used effectively, may increase the likelihood of political success.

Learning to Tell a Joke

In *Advancement of Learning*, in the context of his discussion of memory, which he identifies as a "principle part of the custody of knowledge,"[14] Bacon claims that satires, jests, and cavils are "an abuse of the powers of . . . the mind,"[15] as "the tricks of tumblers, funambuloes, and baldines"[16] are "an abuse of the powers of the body."[17] While these abuses—the satires, jests, and cavils, as well as

the acrobatics, tightrope walks, and pantomimes—may be "matters of strangeness [they are] without worthiness."[18] These abuses of the mind and body are performative; satire, jests, and cavils are intended to elicit a particular response in one's audience. Tricks of the mind, embellishments of the wit, and the arts of elocution, although pleasing to the senses and useful in achieving victory in argument, are not intended to advance human knowledge.

In his "Table of Jests," however, Bacon claims that jests serve a clear, beneficial, "politic" purpose; an orator, to be successful, ought to employ jests effectively. Examples of "modest pleasantry" can be used prudently and effectively to further one's position or argument. More importantly, jests are able to conceal truths that are otherwise difficult to introduce or discuss. Jests, Bacon asserts, are necessary, useful rhetorical devices that can introduce truths, increase persuasiveness, and further one's political goals. Bacon's arguments in favor of jests, however, are contingent on the wit of the orator, the nature of the listener, and the context of the discussion. To employ jest effectively, one must have a cultivated wit.

Bacon likens one's wit to a seed, which is affected by "the ill mixture and unliking of the ground to nourish or raise this plant, but the ill season also of the weather by which it hath been checked and blasted."[19] The actions of parents, teachers, and tutors can affect a child's wit.[20] As an example of the unintentional suppression of wit in young children, Bacon warns against giving children cold drinks.[21] (To be clear, no medical evidence verifies Bacon's recommendation.) Since human beings are political creatures, Bacon avers, our individual intellectual and moral developments are tied to community. Wit, however, is not fixed. While some individuals may have a greater or lesser natural capacity to develop their own wit, much of this development is contingent on intentional cultivation. As a consequence of the influence of nurture, our wits can be "alienated and diverted" by the dominant narratives, "customary conceits," and expectations of the times in which we live.[22] The relationship between an individual and his or her political community is reciprocal: the characters and capacities of individuals affect the nature of the unique political life found in any

society; simultaneously, the type of regime into which any individual is born affects the character of the aggregated citizens or subjects. Wit, as defined by Bacon, is the cumulative result of an individual's nature, which is cultivated by the time in which he or she lives and by the dominant paradigms of understanding to which he or she is exposed.

Wit, therefore, is not fixed; rather, one can exercise or train one's wit, as one exercises or trains one's body. As Bacon explains in his essay "Of Studies," "as diseases of the body may have appropriate exercises," so, too, may the diseases of the mind.[23] Education, Bacon believes, is essential for the cultivation of the mind: "fit studies" may solve many impediments to the wit.[24] Education and learning, when systematically applied, can be used to correct natural deficiencies of wit: dull wits can be sharpened;[25] wandering wits can be focused; and sensory wits can be abstracted.[26]

Bacon even provides actionable natural remedies that purport "to exhilarate the mind, to confirm the courage, to clarify the wits."[27] To increase one's wit, Bacon recommends in *Natural History* "that the . . . heart . . . of an ape, applied to the neck or head, helpeth the wit,"[28] since "the ape also is a witty beast, and hath a dry brain; which may be some cause of attenuation of vapours in the head."[29] Of course, as is the case with Bacon's prior recommendation to refrain from serving children cold drinks, there is no medical evidence to suggest that applying an ape heart to one's neck or head will increase one's wit.

Many individuals, Bacon explains in *Great Instauration*, believe that increasing one's wit is a means to gain honor and reputation. Study is undertaken in order for one to learn to be victorious over one's political and intellectual adversaries, thereby gaining a reputation for wisdom. Individuals who desire victory and fame, Bacon argues, pervert the true aim of learning.[30] Rather than loving truth, these victory lovers desire recognition and "commendation," not for the quality of their ideas, but for the quality of their speech.[31] Truth, Bacon explains in his essay "Of Truth," "is the sovereign good of human nature."[32] The true ends of knowledge, as explained in *Great Instauration*, are "not either for pleasure of the

mind, or for contention, or for superiority to others, or for profit, or fame, or power, or any of these inferior things."[33] Rather, the true ends of knowledge, as explained in "Of Truth," are "the inquiry of truth . . . the knowledge of truth . . . and the belief of truth."[34] Those who seek to improve their wits so that they can better pursue and enjoy truth are acting in accordance with virtue and seeking "the sovereign good of human nature." Those who merely seek a reputation for wittiness or wisdom are not concerned with their own sovereign good, the perpetuation of truth, or the good of their intellectual or political community.[35]

In his "Table of Jests," the arguments that Bacon presents against jests highlight the concern that individuals of great wit may be led astray into caring only for reputation. In *De Augmentis*, Bacon sets up "commonplaces" or "ready at hand" arguments for orators. Each section contains a topic "argued and handled on either side."[36] In his "Table of Jests," on the one hand, as discussed above, Bacon describes "[a] jest [a]s the orator's altar."[37] Yet, Bacon counters this positive argument with a rhetorical question: "[W]ho does not despise these hunters after deformities and prettinesses?"[38] Those who venerate jests as the pinnacle of speech seek ugly or crooked things as a means of gaining points in a debate. Those who employ jests in pursuit of victory are despised by people who recognize the nature of such jests and the intention of their perpetrators. However, "[t]o pass easily from jest to earnest and from earnest to jest is a thing more politic than men suppose."[39] Shifting between serious and solemn matters can be prudent for an orator, and yet more difficult than most individuals believe. After all, a jest "is many times the vehicle of truth which would not otherwise have been brought in."[40] It is possible to discuss solemn and heavy matters with merriment and lightness if one is able to intersperse these truths with jokes. When effectively deployed, jests allow a speaker to convey serious truths without alienating or offending his or her interlocutor. However, Bacon reminds us that caution is also necessary. A jest can deflect from the most serious truths: "It is a dishonest trick to wash away with a jest the real importance of things."[41] If used with ill purpose, jokes and

ridiculous speech can simply obfuscate or detract from serious matters. Jests can also impart a false sense of wisdom, as "[t]hese wits hardly penetrate below the surface of things, where jests ever lie."[42] Individuals who employ jests may be tempted to confuse a well-placed jest with a deeper understanding of the truth. Jests can supplement serious discussion, but they are not a substitute for reasoned argument.

For knowledge to be expanded, the wittiest members of society cannot rest upon their superior intellect, using jest to maintain their status. Increased education and training, Bacon recommends, create a growing community of elevated wits in a society dedicated to the advancement of learning and scientific progress. Bacon's critique of his contemporaries and the condition of learning in his own time is predicated on his account of wit. Since there has thus far been "no true succession of wits . . . the pretended succession of wits hath been evil placed, forasmuch . . . the most popular and not the truest prevaileth."[43] These unfit wits, Bacon argues, devote themselves to reputation rather than truth and have allowed knowledge to be "wasted and decayed."[44] Useful, productive knowledge requires a "conjunction or combination of wits."[45] People of wit, Bacon explains, must be willing to collaborate in order to further the condition of human learning and understanding. The consequence of collaboration, Bacon concedes, is that an individual may have to share honor with collaborators or may even be eclipsed by collaborators. Bacon believes that the potential for the advancement of collective learning outweighs the potential for an individual's loss of honor. In *Great Instauration*, Bacon makes this point explicit, arguing that a community of true wits is essential to impede the proliferation of false, unproductive learning. Unless those devoted to the advancement of knowledge can come together and work collectively, they, as individuals, are vulnerable to the false opinions that dominate political society.[46]

While Bacon considers wit as a natural faculty, he also understands that wit concerns displays and performances and is, therefore, always public. As a consequence of his understanding of wit's relationship to rhetoric, Bacon presents jest as a political necessity.

Jest can be a part of political virtue if used to promote benevolent ends; alternatively, it can cause philosophical or scientific vice if used solely to win rhetorical victories at the expense of the true advancement of knowledge. In *Advancement of Learning*, Bacon calls on men to "employ wit and magnificence to things of worth and excellency, and not to things vulgar and of popular estimation."[47] To employ jest properly and benevolently, one must cultivate one's wit. Bacon's view of jest is extraordinarily nuanced; he presents no single rule to govern the use of jest, and no single model that can be followed. Bacon's analysis depends on ability, circumstance, subject, skill, intention, and consequence; the appropriate use of jest is contingent on the strength of one's wit and one's ability to discern virtue (understood as the advancement of learning) from vice (understood as the pursuit of victory and personal honor).

Jest as Philosophical Vice

One of the drawbacks or dangers of jest, according to Bacon, is the desire for dominance at the expense of truth. Displays of wit through jesting most often concern mastery and power, rather than discovery and learning. Bacon's inductive method, as he understands it, "goes far to level men's wits, and leaves but little to individual excellence."[48] Bacon argues that his method mitigates discrepancies in the natural faculties, but also mediates the desires for false victory.[49] If the method of the Instauration is followed, Bacon predicts that the need for mastery and power vanishes within a learning community, as everyone is united in a common pursuit of the truth. Within this community of learning, there is no need to employ rhetorical trickery, including jests, since the purpose of the community is not individual victory but instead communal advancement. Bacon likens the understanding of a human mind to the drawing of a perfectly straight line or a perfect circle: "For as in the drawing of a straight line or a perfect circle, much depends on the steadiness and practice of the hand, if it be done by aim of hand only, but if with the aid of rule or compass, little or nothing; so is it exactly with my plan."[50] Science, understood

as the advancement of human knowledge, needs tools to obviate the egos and attenuate the personal experiences of the individual scientists. To ensure a true succession of wits (those focused solely on the pursuit of truth), the individual wit of each person (which otherwise might be focused on the desire for mastery and reputation) must be harnessed in service to the whole.

Abuses, tricks, or deceits of the mind have resulted in the stagnation of learning, Bacon believes. Since "men are occupied in admiring and applauding the false powers of the mind, they pass by and throw away those true powers."[51] We focus on the victory of our own ideas and beliefs and on the attendant accolades, rather than on the accuracy of our arguments. If we can use jests to make our opponents seem ridiculous, either in their persons or ideas, we need not mount superior intellectual arguments against them to diminish them. Human beings, Bacon notes, prefer "short and easy" work. For most of us, the ideas, arguments, and explanations "which find most favour with the populace . . . are either contentious and pugnacious, or specious and empty; such, [he] say[s], as either entangle assent or tickle it."[52] Since human beings, for the most part, are unserious, the condition of human learning "has brought down to us things light and puffed up, while those which are weighty and solid have sunk."[53] As we attempt to advance human learning, we must struggle to overcome our natural inclinations to accept simple, easy, and often specious explanations.

Bacon's new method of scientific inquiry, true induction, requires careful, patient observation of data. General conclusions or principles are not readily arrived at through induction. Instead, multiple rigorous experiments are required in order for the discovery of a new piece of knowledge to be deemed legitimately scientific. Bacon, echoing Plato's observations, recognizes that this methodological approach is somewhat unnatural for human beings. Plato's *Apology of Socrates* explains our preferences for our own opinions; we love our opinions and ideas deeply, even irrationally.[54] Our attachment to our established opinions and beliefs does not mean that our opinions are necessarily incorrect; some opinions may, in fact, be true, or at least be closer to truth than others.

But true opinions are accidental, not necessarily replicable. Bacon charges Plato with having "had a wit of elevation," evidenced by Plato's attachment to his own arguments, which causes him to "los[e] the real fruit of his opinion."[55] Bacon's Instauration promises to establish a new scientific foundation for verifying the truth of our beliefs before they are used to structure our societies. True induction, Bacon promises, incorporates the learning and wisdom from the past, establishes a more rigorous and replicable method for the present, and provides a strong foundation for the future.[56] Science, as an approach to learning, purports to have a more solid foundation in truth than do other avenues of study; if this indeed is true, the conclusions of scientists ought to have more validity than the truths purported through other methods. Scientists are perceived by nonscientists and other scientists to be more rational, objective, and unbiased than is the average person, at least as concerns the field of study in which they are expert. As a result, knowledge or opinions supported by experiments, evidence, or data ought to be given more weight by lawmakers tasked with protecting or pursuing the well-being of citizens. To progress the condition of human learning, Bacon "prescribe[s]" the creation of "a natural and experimental history."[57] These histories will become "the foundations of a true and active philosophy," such that "men [will] wake as from deep sleep, and at once perceive what a difference there is between the dogmas and figments of the wit and a true and active philosophy, and what it is in questions of nature to consult nature herself."[58] Learning and knowledge, according to Bacon's designs, rest on the capacity of human beings to understand more clearly the world we inhabit. Wit is essential to the development of our own learning and to the advancement of human learning generally.

Since wit is contingent on public or outward recognition, individuals can erroneously focus on victory, rather than on truth, confusing a reputation for wisdom with wisdom itself. True induction requires that one's intellect or wit recede and that the proper method be at the forefront of learning. Bacon reprimands his contemporaries for wasting their wits "upon toys and matters of no

fruit or value."[59] Since knowledge is necessarily cumulative, each age builds on the established knowledge of previous generations. If the foundations of learning are incorrect, flawed, limited, or obsolete, all subsequent knowledge will be constructed on incorrect premises. Therefore, Bacon argues, those who develop knowledge and establish their wits must be essentially motivated by a sincere interest in human improvement, rather than in the victory or remembrance of their own wit.

Wit, as understood by Bacon, is necessary for scientific inquiry insofar as it allows for the Instauration to be politically accepted. Yet, jest—as a means to rhetorical victory—has little or no place in legitimate scientific inquiry. Bacon's new inductive method is intended to obviate individual wits. Methodological consistency, Bacon purports, will allow for replicability and ensure the veracity of experimental results. Expansion of human knowledge and human power is more likely when those who pursue knowledge concern themselves with the truths of nature, rather than with their own honor and reputation. A challenge inherent in Bacon's Instauration is whether it is possible to control the ego of the scientist in order to increase cumulative knowledge. A requirement of the Instauration is the management of the scientist's desire for personal honor and reputation. To ensure that the Instauration along with the true induction on which it is based does not devolve into the desire for intellectual victory at the expense of truth, Bacon frames his project as grounded in the pursuit of moral virtue as well as intellectual virtue. Bacon's science aspires to alleviate man's suffering, taking universal charity as its ultimate purpose.[60] As such, those dedicated to the Instauration must develop the skills, including the apt use of jest, that will ensure the political victory of their project.

Jest as Political Virtue

As we learn from the fate of Cassandra, whom Bacon presents in *Wisdom of the Ancients* as an exemplar of true yet unpersuasive speech, speaking the truth does not guarantee that one is believed.[61] If people who speak truth do so from a place of privileged

knowledge, either because like Cassandra they receive divine revelations or because they understand advanced scientific principles accessible only to those with elite educations, there is a strong possibility that their argument will be rejected. Those who do not possess sufficient knowledge to judge a true argument from a false argument or who lack the context to enable them to evaluate certain claims accurately are especially susceptible to believe the easiest or least demanding argument, even if it is untrue.

The success of most political projects is contingent on the ability of the project's proponents to convince other people of the validity of their argument.[62] According to Bacon, politics is a sphere "of tempests,"[63] of "perils and shadows."[64] Political success is determined by one's ability to achieve one's desired ends or goals, which demands thoughtful, intentional, persuasive speech. Individuals who operate within the political realm must learn how best to represent their interests to their allies and adversaries. They must become adept in the tactical deployment of the rhetorical arts, of which jest is one of the most effective. Persuasive communication achieved through "discourse and speeches" allows individuals to reveal "their learning and infused opinions."[65] Intellectual acumen and rhetorical skills are requisites of political success. In politics, wit, demonstrated through the judicious deployment of rhetorical tools, is a necessary virtue that often separates those who are effective at accomplishing their goals from those who are not.

In his essay "Of Discourse," Bacon explains that effective rhetoric should "vary and intermingle speech of the present occasion with arguments, tales with reasons, asking of questions with telling of opinions, and jest with earnest: for it is a dull thing to tire, and, as we say now, to jade, any thing too far."[66] Bacon argues that no single model of effective rhetoric is applicable in all situations, with all people, or by all people. Jest is a tool of persuasive speech, but it should not be one's exclusive, or even primary, tool. Bacon places limitations or parameters on the topics that are to be treated with ridicule: "As for jest, there be certain things which ought to be privileged from it; namely, religion, matters of state, great persons, any man's present business of importance,

and any case that deserveth pity."[67] In his *Short Notes for Civil Conversation*, the limits on jesting are expanded: Bacon advocates "moderation in all our speeches, especially in jesting of religion, state, great persons, weighty and important business, poverty, or any thing deserving of pity."[68] Many people inappropriately employ jest. Religion, state concerns, people of place, current ongoing business, and sensitive issues should not be treated with jest. The temporary victory one may achieve over an opponent by mocking these topics is not worth the long-term damage of turning serious topics into objects of ridicule.

Jests may be deployed for either benevolent or malevolent ends. After all, rhetoric has no inherent moral orientation. The quality of one's rhetoric is evidenced by whether one is able to convince other people to accept one's desired position or to undertake one's desired task. If one's rhetoric is effective in persuading people to support false, illogical, or dangerous arguments, one is a skillful or excellent rhetorician without being a morally good human. Alternately, one who grasps moral truths but is unable to convince other individuals of the veracity of his or her position may be a virtuous human but is, like Cassandra, an ineffective political actor. The purpose of employing jest, according to Bacon, is to exhibit one's intellectual superiority in order to win a discussion or argument, improve one's reputation, or effect one's desired outcome. If the victory aids in laying the groundwork for a virtuous cause to succeed, jest has served a virtuous end.

Throughout his works, Bacon identifies individuals who have "more civil wits" than do others and, consequently, are interested in "new laws, customs, and usages."[69] Individuals of this type, Bacon outlines in *Advancement of Learning*, tend to be "lawyers and scholars," who are able to "bend their wits."[70] In political speech, "that use of wit and knowledge is to be allowed."[71] Political speech, as the province of rhetoric, is primarily concerned with victory or persuasion, not with truth. Some political orators "build rather upon the abusing of others, and (as we now say) *putting tricks, upon them*, than upon soundness of their own proceedings."[72] In his essay "Of Simulation and Dissimulation," Bacon explains that

dissimulation is the intentional misrepresentation of an event, one's beliefs, or one's interest. While necessary in politics, "Dissimulation is but a faint kind of policy or wisdom," as it requires an individual to have "a strong wit and a strong heart to know when to tell truth, and to do it" and, therefore, when not to tell the truth.[73]

The most able individuals, Bacon argues, "have had *all* an openess and frankness of dealing."[74] They have not had to misrepresent their interests to accomplish their goals. Rather, "it is the weaker sort of politics that are the great dissemblers." Effective political communication requires that an individual be able to "discern what things are to be laid open, and what to be secreted, and what to be shewed at half lights, and to whom, and when."[75] In political communication, including that employing jest, "penetration of *judgement*" is necessary to determine the quality of the person to whom one is speaking, the context of the conversation, the discrepancy between one's own goals and those of the listener, and how most effectively to persuade the listener to join one's cause.[76]

In *Of the Interpretation of Nature*, Bacon declares "victory of wit" as "inferior and degenerate" to true knowledge and its end.[77] As discussed previously, some individuals are concerned with victory and reputation; individuals of this type are disingenuous in their pursuit of knowledge and truth. They display their wit through jests to overcome their interlocutors and attain the honors that accompany victory. Jest, therefore, is neither a consequence nor part of the process of contemplation, since one need not learn from one's interlocutors, nor must one speak the truth. Jest is, however, essential to politics, since politics is based on one's ability to convince others to support one's positions or participate in one's endeavors. To be politically effective, one must be rhetorically astute (regardless of the veracity of one's speech). As discussed, wit is outward looking. It requires the recognition or acknowledgment of others to develop properly.

As an example of the limitations of wit as a means to evaluate the receptions of one's actions and arguments, we turn to Bacon's discussion of laughter. Although Bacon does not consider jest to be a part of contemplation, he does study it as part of the human

experience. Laughter is typically regarded as a response to jests. In *Natural History*, under the heading "Experiments in consort touching the impressions which the passions of the mind make upon the body," Bacon examines the physical manifestations of "the passions of the mind."[78] Ten passions are listed: fear, "grief and pain," joy, anger, "light displeasure or dislike," shame, pity, wonder, lust, and laughter. Laughter may seem out of place on this list of passions, since laughter is typically regarded as an action, rather than an emotion. Bacon anticipates his readers' skepticism and provides a disclaimer: "Wherein first it is to be understood, that laughing is scarce (properly) a passion, but hath his source from the intellect."[79] Laughter may be an involuntary reaction. Those who laugh may experience the jest or ridicule of another individual's exertion of wit. Laughter is one type of physical response to someone else's actions.

As with the other passions listed, Bacon begins by describing the physical effects of laughter.[80] Our mouths open and our lips expand. We expel breath. Our diaphragm contracts. We shake, and we make noises. If our laughter persists, our eyes water. These physical changes "proceed (all) from the dilatation of the spirits."[81] Laughter, Bacon explains, is a "widening out, expansion, [or] enlargement" of the body and of the mind. Yet, laughter is not like the other passions that Bacon lists. Laughter is not simply an impression of the mind; it is evidence of an effect on the body.

If laughter is not a passion, but is rooted in the intellect, why does Bacon list laughter with these other passions? Bacon explains that, first, laughing occurs when someone perceives something as ridiculous. Yet, ridiculousness is often subjective. Different individuals have different standards of ridicule and, therefore, laugh at different situations or events. Second, laughter need not be associated solely with intellectual perception but can also be caused "only by tickling some parts of the body."[82] Moreover, laughter can be involuntary. Bacon elaborates: "[W]e see that men even in a grieved state of mind, *yet* cannot sometimes forbear laughing."[83] Some instances of laughter are connected to an intellectual evaluation of the humor of a particular situation. Other

instances of laughter are a physical, uncontrollable response to external conditions. Third, laughter "is ever joined with some delight."[84] Joy or exhilaration is revealed by laughter. Fourth, we often laugh when "the object of it is deformity, absurdity, shrewd turns, and the like."[85] Ugly or crooked things, dissonant, unreasonable, or improper things, and cunning, mischievous, or clever things often cause us to laugh, sometimes inappropriately. As with the other passions listed in Bacon's analysis, no single behavior or mode of speech is guaranteed to induce laughter in a listener, nor are all listeners moved to laugh at the same things. Laughter as a physical confirmation of comedy or jest is thus unreliable and insufficient. It is therefore difficult, if not impossible, to use jests to evaluate the quality of one's arguments or the reception of one's ideas. Since laughter is an external response that may be feigned or faked, it may not correspond to the internal beliefs or opinions of the person who laughs. Therefore, a jester can never accurately know why his or her audience is laughing.

Comedy and jest do not lend themselves easily to rational inquiry, as is plain to anyone who has tried to explain to someone who is not laughing why a joke is funny. Comedy, like rhetoric, is at least partially an art. For that reason, it belongs to the realm of politics, not to the realm of science. While Bacon condones the use of jest in politics and political life, meaningful political action cannot rely solely on wit. Political success is never guaranteed; wit does, however, increase the likelihood that one may succeed in one's political endeavors. Since wit is concerned with victory, rather than with virtue or truth, those individuals who desire political excellence may employ jest, but they must recognize that doing so may simultaneously debase their moral reputation and philosophical virtue.

Conclusion

Bacon examines the nature and utility of jest and wit, both as areas of human experience deserving of inquiry in themselves and as tools that are essential to the mastery of political speech or rhetoric. Jest is established as either a useful accompaniment or a potentially dangerous impediment to serious discourse, depending on

the sharpness and acumen of the jester's wit. As is the case with all natural capacities, wit must be grown and developed to reach its highest potential. As with all tools, jest can be used for either benevolent or malevolent ends. Bacon believes that in certain circumstances, such as in political discussion, jest is useful and necessary. In other instances, such as in philosophic study and natural science, jest is harmful and dangerous.

Bacon's Instauration proposes to refound natural philosophy, using a rigorous scientific methodology that allows human understanding to approach objective truth more closely than ever before in our history. The purpose of Bacon's science is to discover, replicate, and explain the secret truths of the natural world. Science, therefore, must rely on precision and accuracy. Wit, as Bacon understands it, delights in private victories over an opponent, rather than in the pursuit of truth. In the pursuit of science, therefore, jest is a vice. Yet, scientists must live in political societies, and political leaders must adapt to, regulate, guide, and fund the direction of scientific development. A society founded on scientific advancement, the goal of the Instauration, requires the tools of political life to be successful. In politics, where persuasion is the primary objective, the ability to jest is an essential virtue.[86]

In 1620, Bacon publishes his *Instauratio Magna*, also called *Great Instauration*, which lays out his intentions for the Instauration and accompanies the publication of the *Novum Organum*, also called *New Organon*. Bacon's worldview and resulting political philosophy, as he explains, are shaped by his adamant belief that "the entire fabric of human reason . . . is badly put together and built up, and . . . without any foundation."[87] His accusation is radical: that the entirety of knowledge is based on false premises. Everything that human beings believe to be true about themselves, about nature, and about the cosmos, including our achievements and limits, is specious. All learning up to that point, developed according to a deductive model, is founded on a set of generally accepted precepts. Bacon's methodological innovation is to advocate true induction that, instead of starting with existing models, focuses on careful, patient observation. For a new piece of knowledge to be

deemed legitimate, multiple rigorous experiments are required to replicate the results. Bacon's science is intended to be universalizable, as "it seeks for the sciences not arrogantly in the little cells of human wit, but with reverence in the greater world."[88] Once we commit to true induction as the method of verifying the truth of our beliefs before they are used to structure society, we can reestablish the foundation of all learning.

True induction and the veracity of its results rely on replicability. Replication is intended to be a methodologically consistent means of confirming our theories. Without an established, verifiable method of inquiry, however, the only tools for determining the relative soundness of opinions are personal experience, preconceived perspectives, and persuasive speech. It is impossible, Bacon concedes, to excise personal experience, preconceived perspectives, and our susceptibility to persuasive speech completely from our evaluative decision-making.[89] True induction, Bacon acknowledges, is contrary to human cognitive instincts, which not only seek patterns where none may exist but also seek the confirmation of preexisting beliefs.[90] Human beings are not, Bacon explains, purely rational, information-calculating beings. We are moved by sentiment. If persuasive speech is the evaluative standard, the arguments of the most eloquent speaker will always be regarded as true. Individuals who are adeptly able to employ the rhetorical arts—including jest and other forms of comedy—will be evaluated based on the quality of their speeches, rather than on the truth of their arguments. Since rhetoric is an appeal to sentiment and different individuals have different sentiments, the rhetorical arts affect different people in different ways. Rhetoric is performance and, Bacon suggests, dangerous in a community of philosophical learning. A commitment to the advancement of learning requires a commitment to truth shared without artifice.

Notes

1. Francis Bacon, *Great Instauration*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 4 (New York: Cambridge University Press, [1858] 2011), 4:8.

2. Wilbur Samuel Howell, *Logic and Rhetoric in England, 1500–1700* (New York: Russell & Russell, 1961), 9. Howell traces the development of rhetoric in England. His discussion of Bacon focuses on "Bacon's pioneering thought . . . to develop a system of communication suited to the transfer of information from one scientist to another, and from scientist to public."
3. Francis Bacon, Translation of *De Augmentis*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 4 (New York: Cambridge University Press, [1858] 2011), 4:436.
4. Bacon, Translation of *De Augmentis*, 4:487.
5. Bacon, Translation of *De Augmentis*, 4:472.
6. William W. Rawley, *Dr. Rawley's Life of Bacon*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 1 (New York: Cambridge University Press, [1858] 2011), 1:3–4, 5, 10–11, 14, 15, and 16; Abraham Cowley, "History of the Royal Society" (https://www.bartleby.com/332/75.html), likens Bacon to Moses and comments on "his exalted wit"; David Hume, *The History of England from the Invasion of Julius Caesar to the Revolution in 1688*, foreword by William B. Todd, 6 vols. (Indianapolis: Liberty Fund, 1983). In *The History of England*, 4:359 (http://lf-oll.s3.amazonaws.com/titles/791/0011.04_Bk.pdf), Hume commends "Bacon's humanity, or rather his wit"; see also 5:153: "[Bacon's] wit, though often brilliant, is also often unnatural and far-fetched; and he seems to be the original of those pointed similes and long-spun allegories, which so much distinguish the English authors."
7. Rawley, *Dr. Rawley's Life of Bacon*, 1:5.
8. Lisa Jardine, *Francis Bacon: Discovery and the Art of Discourse* (Cambridge: Cambridge University Press, 1974), 2. Jardine's work is intended to "reconstruc[t] the intellectual backcloth against which Bacon posed the particular methodological questions which engaged his attention." There is a significant literature on Bacon's relationship to Ramus. As examples, see Craig Walton, "Ramus and Bacon on Method," *Journal of the History of Philosophy* 9, no. 3 (1971): 289–302; Jardine, *Francis Bacon*, 41–54 and 169–71; John C. Briggs, *Francis Bacon and the Rhetoric of Nature* (Cambridge: Harvard University Press, 1989), 189–92 and 201–14; Mordechai Feingold, "English Ramism: A Reinterpretation," in *The Influence of Petrus Ramus*, ed. Mordechai Feingold, Joseph S. Freedman, and Wolfgang Rother (Basel: Schwabe, 2001), 127–76; Angus Fletcher, "Francis Bacon's Forms and the Logic

of Ramist Conversion," *Journal of the History of Philosophy* 43, no. 2 (2005): 157–69; and most recently, Peter R. Anstey, "Francis Bacon and the Laws of Ramus," *HOPOS: Journal of the International Society for the History of Philosophy of Science* 5, no. 1 (2015): 1–23.

9. An example of Bacon's emphasis on Cicero's logical model is found in Howell's *Logic and Rhetoric in England*. Howell's work, to be clear, is not simply concerned with Bacon's employment of Cicero's logic; Howell also addresses witcraft more generally, Ramus, and later developments in rhetorical method. Brian Vickers, *Francis Bacon and Renaissance Prose* (Cambridge: Cambridge University Press, 1968), focuses on Bacon's complex and often contradictory relationships to his predecessors; Vickers clearly provides examples and evidence to support the argument that Bacon simultaneously castigates and borrows from his intellectual predecessors.
10. Bacon's understanding of Tacitus and Cicero, and whose thought he favors, is a contentious topic in the Bacon literature. As examples, see Edward Benjamin, "Bacon and Tacitus," *Classical Philology* 60, no. 2 (1965): 102–19; Morris Croll, *Attic and Baroque Prose Style*, ed. J. Max Patrick and Robert O. Evans (Princeton, NJ: Princeton University Press, 1969); and for a more recent example, see Guido Giglioni, "Philosophy according to Tacitus: Francis Bacon and the Inquiry into the Limits of Human Self-Delusion," *Perspectives on Science* 20, no. 2 (2012): 159–82.
11. Dana Jalobeanu argues that Bacon is part of a Calvinist revival that draws from the Stoic tradition. "Idolatry, Natural History, and Spiritual Medicine: Francis Bacon and the Neo-Stoic Protestantism of the Late Sixteenth Century," *Perspectives on Science* 20, no. 2 (2012): 207–26. In "Francis Bacon, Natural Philosophy, and the Cultivation of the Mind," *Perspectives on Science* 20, no. 2 (2012): 139–58, Peter Harrison builds on this scholarly debate concerning Bacon's intellectual tradition, arguing that Bacon is actually part of an Augustinian tradition.
12. Richard Serjeantson, "Proof and Persuasion," in *The Cambridge History of Science*, ed. Katherine Park and Lorraine Daston (Cambridge: Cambridge University Press, 2006), 3:146.
13. Marc Coogan shows how "Bacon describes rhetoric in terms of its relation to, and effect on, a given set of human faculties." This "unconventional strategy" does not "follo[w] more familiar descriptions of the art that specify the method of persuasion in terms of the occasions on which it is used (forensic, deliberative, ceremonial), or the operations by which it is accomplished (invention, disposition, diction, memory, action), or the kinds of questions to which it provides solutions

(conjectural, definitive, qualitative, translative)." "Rhetoric and Action in Francis Bacon," *Philosophy & Rhetoric* 14, no. 4 (1981): 212–33.

14. Francis Bacon, *Advancement of Learning*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 3 (New York: Cambridge University Press, [1858] 2011), 3:398.
15. Bacon, Translation of *De Augmentis*, 4:436.
16. Bacon, *Advancement of Learning*, 3:398.
17. Bacon, Translation of *De Augmentis*, 4:436.
18. Bacon, *Advancement of Learning*, 3:398.
19. Francis Bacon, *Of the Interpretation of Nature*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 3 (New York: Cambridge University Press, [1858] 2011), 3:225. While *Valerius Terminus*, or *Of the Interpretation of Nature*, has been only fragmentarily completed, portions of the fourth and fifth chapters and the entirety of the sixth chapter are preserved and devoted to knowledge and wit.
20. Francis Bacon, *Natural History*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 2 (New York: Cambridge University Press, [1858] 2011), 2:458–59: "And again men must beware how they give children any thing that is cold in operation; for even long sucking doth hinder both wit and stature."
21. Ibid.
22. Bacon, *Of the Interpretation of Nature*, 3:225. Bacon is specific on this point: "[M]onarchies incline wits to profit and pleasure, and commonwealths to glory and vanity. That universities incline wits to sophistry and affectation, cloisters to fables and unprofitable subtilty, study at large to variety; and that it is hard to say, whether mixture of contemplations with an active life, or retiring wholly to contemplations, do disable and hinder the mind more" (3:252).
23. Francis Bacon, *Essays*, "Of Studies," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:498. Bacon establishes a regime to exercise the diseases of the mind: "So if a man's wit be wandering, let him study the mathematics; for in demonstrations, if his wit be called away never so little, he must begin again. If his wit be not apt to distinguish or find differences, let him study the schoolmen; for they are *cymini sectores* [splitters of hairs]. If he be not apt to beat over matters, and to call up one thing to prove and illustrate another, let him study the lawyers' cases. So every defect of the mind may have a special receipt."

24. Ibid.
25. Francis Bacon, *Essays*, "Of Friendship," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:440.
26. Bacon, *Advancement of Learning*, 3:360. As an overall salve for the deficiencies of the wit, Bacon recommends "Pure Mathematics."
27. Bacon *Advancement of Learning*, 3:368–69.
28. Bacon, *Natural History*, 2:665: "The writers of natural magic report that the heart of an ape, worn near the heart, comforteth the heart, and increaseth audacity. It is true that the ape is a merry and bold beast. And that the same heart likewise of an ape, applied to the neck or head, helpeth the wit; and is good for the falling sickness: the ape also is a witty beast, and hath a dry brain; which may be some cause of attenuation of vapours in the head."
29. Ibid.
30. Bacon, *Great Instauration*, 4:19.
31. The argument that Bacon makes in this context is reminiscent of Aristophanes' discussion of the debate between the Just and Unjust Speech in *The Clouds*, in *Four Texts on Socrates*, ed. and trans. Thomas G. West and Grace Starry West (Ithaca, NY: Cornell University Press, 1998), 890–1120.
32. Francis Bacon, *Essays*, "Of Truth," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:378.
33. Bacon, *Great Instauration*, 4:21.
34. Bacon, *Essays*, "Of Truth," 6:378.
35. Francis Bacon, *Essays*, "Of Honour and Reputation," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:505–6.
36. Bacon, Translation of *De Augmentis*, 4:472.
37. Bacon, Translation of *De Augmentis*, 4:487.
38. Ibid.
39. Ibid.
40. Ibid.
41. Ibid.
42. Ibid.
43. Bacon, *Of the Interpretation of Nature*, 3:207, 227.
44. Bacon, *Of the Interpretation of Nature*, 3:226–27.
45. Bacon, *Of the Interpretation of Nature*, 3:231.

46. Bacon, *Great Instauration*, 4:15. "And therefore no doubt the greatest wits in each successive age have been forced out of their own course; men of capacity and intellect above the vulgar having been fain, for reputation's sake, to bow to the judgment of the time and the multitude; and thus if any contemplations of a higher order took light anywhere, they were presently blown out by the winds of vulgar opinions."
47. Bacon, *Advancement of Learning*, 3:477.
48. Francis Bacon, *New Organon*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 4 (New York: Cambridge University Press, [1858] 2011), 4:109.
49. Bacon, *New Organon*, 4:62–63.
50. Ibid.
51. Bacon, *Great Instauration*, 4:7.
52. Bacon, *Great Instauration*, 4:15.
53. Ibid.
54. This argument is illustrated at several places in Plato's dialogues, such as in Socrates' denial of the wisdom of the wise men of Athens in Plato's *Apology of Socrates*, in *Four Texts on Socrates*, ed. and trans. Thomas West and Grace Starry West (Ithaca, NY: Cornell University Press, 1998), 21c–24b; and in Plato's Allegory of the Cave, in *The Republic of Plato*, trans. Allan Bloom (New York: Basic Books, 1991), 514a–520a.
55. Bacon, *Advancement of Learning*, 3:355: "But it is manifest that Plato in his opinion of Ideas, as one that had a wit of elevation situate as upon a cliff, did descry that forms were the true object of knowledge; but lost the real fruit of his opinion, by considering of forms as absolutely abstracted from matter, and not confined and determined by matter; and so turning his opinion upon Theology, wherewith all his natural philosophy is infected."
56. There are many critiques of Bacon's emphasis on true induction and his belief in reason, especially the focus of later thinkers on rationality and rationalism. At the heart of these critiques is a concern regarding the actual extent of human reason and the degree to which a common method will actually result in consistent outcomes and common beliefs. As an example, Michael Oakeshott argues that the modern emphasis on truth and reason results from an "exaggeration of Bacon's hopes rather than from the character of his beliefs"; see Michael Oakeshott, "Rationalism in Politics," in *Rationalism in Politics and Other Essays*, 1–37 (London: Methuen, 1981), 16.
57. Francis Bacon, Translation of *Parasceve*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 4 (New York: Cambridge University Press, [1858] 2011), 4:252.

58. Ibid.
59. Bacon, *Of the Interpretation of Nature*, 3:250.
60. Francis Bacon, *Essays*, "Of Goodness and Goodness of Nature," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:403.
61. Francis Bacon, *Wisdom of the Ancients*, "Cassandra," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:701–2.
62. Peter Augustine Lawler, "Rhetoric as the Foundation for Political Education," *Journal of General Education* 34, no. 4 (1983): 330–48.
63. Francis Bacon, *Essays*, "Of Seditions and Troubles," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:406.
64. Francis Bacon, *Essays*, "Of Empire," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:419.
65. Francis Bacon, *Essays*, "Of Custom and Education," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:470.
66. Francis Bacon, *Essays*, "Of Discourse," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:455.
67. Ibid.
68. Francis Bacon, *Short Notes for Civil Conversation*, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 7 (New York: Cambridge University Press, [1858] 2011), 7:109–10.
69. Bacon, *Of the Interpretation of Nature*, 3:225–26.
70. Bacon, *Advancement of Learning*, 3:364.
71. Ibid.
72. Francis Bacon, *Essays*, "Of Cunning," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:431.
73. Francis Bacon, *Essays*, "Of Simulation and Dissimulation," in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 6 (New York: Cambridge University Press, [1858] 2011), 6:387.

74. Ibid.
75. Ibid.
76. Ibid.
77. Bacon, *Valerius Terminus*, 3:222.
78. Bacon, *Natural History*, 2:567.
79. Bacon, *Natural History*, 2:570.
80. Ibid.
81. Ibid.
82. Ibid.
83. Ibid.
84. Ibid.
85. Ibid.
86. We are not suggesting that there is discontinuity between Bacon's political works and his scientific works, a contentious debate in the literature on Bacon's project. For examples of arguments that support unity in Bacon's project, see Howard B. White, "Bacon's Imperialism," *American Political Science Review* 52, no. 2 (1958): 470–89, 489; James Gerald Crowther, *Francis Bacon: The First Statesman of Science* (London: Cresset Press, 1960), 121; Jerry Weinberger, *Science, Faith, and Politics: Francis Bacon and the Utopian Roots of the Modern Age*: *A Commentary on Bacon's "Advancement of Learning"* (Ithaca, NY: Cornell University Press, 1985); Robert K. Faulkner, "Visions & Powers: Bacon's Two-Fold Politics of Progress," *Polity* 21, no.1 (1988): 111–36; Robert K. Faulkner, *Francis Bacon and the Project of Progress* (Lanham, MD: Rowman & Littlefield, 1993); Antonio Pérez-Ramos, *Francis Bacon's Idea of Science and the Maker's Knowledge Tradition* (Oxford: Oxford University Press, 1988); Laurence Lampert, *Nietzsche and Modern Times* (New Haven, CT: Yale University Press, 1993); Brian Harvey Goodwin Wormald, *Francis Bacon: History, Politics, and Science, 1561–1626* (Cambridge: Cambridge University Press, 1993), chap. 2; Tobin L. Craig, "On the Significance of the Literary Character of Francis Bacon's *New Atlantis* for an Understanding of His Political Thought," *Review of Politics* 72, no. 2 (2010): 213–39, 214–15; Svetozar Y. Minkov, *Francis Bacon's "Inquiry Touching Human Nature": Virtue, Philosophy, and the Relief of Man's Estate* (New York: Lexington Books, 2010); Natalie J. Elliot, "Bacon on Virtue and the Human Good," *Review of Politics* 73, no. 3 (2011): 503–6, 506; and Vera Keller, *Knowledge and the Public Interest, 1575–1725* (Cambridge: Cambridge University Press, 2015), 99n19. For an alternative perspective on the unity of Bacon's project, see Markku Peltonen, "Politics and Science: Francis Bacon and the True Greatness of States," *Historical Journal* 35, no. 2 (1992):

279–305, 291; and Ian Box, "Bacon *Essays*: From Political Science to Political Prudence," *History of Political Thought* 3, no. 1 (1982): 31–49.

87. Bacon, *Great Instauration*, 4:7.
88. Bacon, *Great Instauration*, 4:21.
89. Bacon, *New Organon*, 4:53.
90. Bacon, *New Organon*, 4:55–58.