

Shakespeare's Constructicon

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MORE THAN WORDS, WORDS, WORDS

SHAKESPEARE'S WORKS HAVE LONG BEEN THE SANDBOX OF PHILOLOGISTS, historical linguists, and especially lexicographers, who for more than two centuries have produced an impressive array of general and specialized dictionaries, glossaries, lexicons, and *Wörterbücher*. David and Ben Crystal's *Shakespeare's Words* (2002) is a recent and popular representative of a long line of lexicons stretching back at least to Thomas Dolby's *Shakespearean Dictionary: Forming a General Index to All the Popular Expressions, and Most Striking Passages in the Works of Shakespeare*, which was published in 1832.¹ As Dolby's title suggests, early Shakespeare dictionaries were not fully distinct from other reference genres such as indexes, concordances, or phrase books.² In an age when computers produce concordances with the click of a mouse, it is easy to forget that a 1787 work like *A Concordance to Shakespeare*, compiled by Andrew Becket, or *An Index to the Remarkable Passages and Words Made Use of by Shakespeare*, which Samuel Ayscough (affectionately known as "the prince of index makers") published in 1790, were monuments of lexicographic labor, scholarship, and erudition in their own right.³ The last century and a half has witnessed more general Shakespeare dictionaries, lexicons, indexes, concordances, phrasebooks, and collections of quotations than I have purpose to mention here, and the last seventy-five years have increasingly given rise to works of specialized lexicography, of which Eric Partridge's *Shakespeare's*

¹ David Crystal and Ben Crystal, *Shakespeare's Words: A Glossary and Language Companion* (New York: Penguin, 2002); and Thomas Dolby, *The Shakespearean Dictionary* (London: Smith, Elder, 1832).

² On the concept of "reference genres," see Ann Blair, "Reading Strategies for Coping with Information Overload, ca. 1550–1700," *Journal of the History of Ideas* 64.1 (2003): 11–28, esp. 12.

³ Andrew Becket, *A Concordance to Shakespeare* (London, 1787); Samuel Ayscough, *An Index to the Remarkable Passages and Words Made Use of by Shakespeare* (London, 1790); and Arthur Sherbo, "Ayscough, Samuel (1745–1804)," in *Oxford Dictionary of National Biography* (Oxford: Oxford UP, 2004), www.oxforddnb.com/view/article/953 (accessed 9 March 2015). For automatic concordancing, see *AntConc* (www.laurenceanthony.net/software/antconc/) or the concordance function of *Open Source Shakespeare* (www.opensourceshakespeare.org/concordance/).

Bawdy, a 1947 essay followed by a glossary of naughty words, is only the most influential example.⁴

The specialized Shakespeare dictionary business is by all appearances flourishing. In 2011 Bloomsbury purchased Continuum and with it Continuum's series of dictionaries on particular topics within Shakespeare, now published (and often reprinted) under the Arden Shakespeare Dictionary series. A curious student can consult *Shakespeare's Religious Language: A Dictionary*; *Shakespeare's Demonology: A Dictionary*; *Shakespeare's Plants and Gardens: A Dictionary*; and so on for women, music, books, medical language, political and economic language, class and society, and more titles to come.⁵ Suffice it to say that Shakespeare has sponsored a significant portion of the English lexicographical enterprise.

I come to praise, not to bury, the massive, collective, philological achievement of more than two hundred years of Shakespeare scholarship, and yet I want to argue that lexical reference works, even in the aggregate, are far from cataloguing the symbolic resources that Shakespeare employed in writing the plays and poems. Existing lexicons inventory words and sometimes fixed expressions (lines, phrases, "popular expressions," "remarkable passages"). But with a single notable exception that this essay returns to later, they have no purchase on what I will call *linguistic forms*: abstract, variable, and productive Saussurean signs (i.e., conventionally established pairings of signifier and signified). Unlike the utterances people actually speak and write, linguistic forms are composed at least partly of categories (blanks, slots, variables) that can be filled in multiple ways. From the linguistic culture of his day Shakespeare inherited not only words but also an immense repertoire of forms that he put to both conventional and innovative use in his poems and plays.

In this essay I wish to propose a new work of philological reference that will incorporate Shakespeare's linguistic forms as well as his fixed words and phrases. An increasingly influential cadre of cognitive and constructional linguists, many of whom studied or taught at the University of California, Berkeley or the University of California, San Diego in the 1980s, has taken to

⁴ Eric Partridge, *Shakespeare's Bawdy: A Literary and Psychological Essay, and a Comprehensive Glossary* (London: Routledge, 1947).

⁵ R. Chris Hassel, *Shakespeare's Religious Language: A Dictionary*, Arden Shakespeare Dictionary Series (London: Bloomsbury Arden, 2015); Marion Gibson and Jo Ann Esra, *Shakespeare's Demonology: A Dictionary*, Arden Shakespeare Dictionary Series (London: Bloomsbury Arden, 2014); and Nicki Faircloth and Vivian Thomas, *Shakespeare's Plants and Gardens: A Dictionary*, Arden Shakespeare Dictionary Series (London: Bloomsbury Arden, 2014). For further titles in the Arden Shakespeare Dictionary series, see <http://www.bloomsbury.com/us/series/arden-shakespeare-dictionaries/>. For a review of the Arden Shakespeare Dictionary series, see Deborah T. Curren-Aquino, review of the Arden Shakespeare Dictionary Series, ser. ed. Sandra Clark, *Shakespeare Quarterly* 66.2 (2015): 197–208.

calling this kind of reference work a *constructicon*, a word coined by an analogy with *lexicon*, no doubt with a tip of the hat to the team of evil construction vehicles in the cartoon series *Transformers*.⁶ A linguistic constructicon is a structured repertoire of constructions—conventional signifier/signified pairings of varying complexity and abstractness. In order of increasing abstraction, the full continuum of constructions includes the following:

Individual morphemes: the *-er* in *wrestler* and *minister*

Words found in lexicons: *cozener*, *coxcomb*

Fixed idioms and conventional multiword expressions: “let be” (*Hamlet*, 5.2.238; *Antony and Cleopatra*, 4.4.9; *The Winter’s Tale*, 5.3.75); “in faith” (*The Merchant of Venice*, 1.3.164, 2.4.13, 5.1.156, 5.1.187)⁷

Variable idioms: “giving him the lie” (*Macbeth*, 2.3.37); “gave thee the lie” (*Macbeth*, 2.3.39)

Partially unfilled or lexically open constructions, like the way-construction: “presently you take your way for home” (*All’s Well That Ends Well*, 2.5.68); “thou dost make thy way / To noble fortunes” (*King Lear*, 5.3.34–35); “Go thrust him out at gates, and let him smell / His way to Dover” (*King Lear*, 3.7.113–14)⁸

Wholly unfilled constructions or phrasal patterns with no fixed lexical components, like the ditransitive Subj V Obj₁ Obj₂: “the fated sky / Gives us free scope” (*All’s Well That Ends Well*, 1.2.223–24); “Deliver me the key” (*The Merchant of Venice* 2.8.65)⁹

⁶ These linguists describe the constructicon as a repertoire, a network, or a structured inventory of constructions. What I call *linguistic forms* are, in their scholarship, variously referred to as schematic, unfilled, formal, or lexically open templates, patterns, or (most generally) constructions. Though I have made use of the conceptual frameworks developed by linguists noted throughout this paper, my aim is to bring an expanded range of linguistic entities into the purview of Shakespeare scholars rather than to champion a particular theory of the human language faculty. For the seminal arguments of cognitive and constructional linguistics, see the essays collected in *Cognitive Linguistics*, ed. Adele E. Goldberg (New York: Routledge, 2011) and the overview presented in William Croft and D. Alan Cruse, *Cognitive Linguistics* (Cambridge, UK: Cambridge UP, 2004).

⁷ Unless the result of a corpus search or a citation from a specific edition, passages from Shakespeare’s works follow *Folger Digital Texts*, ed. Barbara Mowat, Paul Werstine, Michael Poston, and Rebecca Niles (Folger Shakespeare Library, 2014), <http://folgerdigitaltexts.org/>. For the classic discussion of idioms, see Geoffrey Nunberg, Ivan A. Sag, and Thomas Wasow, “Idioms,” *Language* 70.3 (1994): 491–538. Nunberg, Sag, and Wasow define an idiom as an expression for which “meaning and use can’t be predicted, or at least entirely predicted, on the basis of a knowledge of the independent conventions that determine the use of their constituents when they appear in isolation from one another” (492).

⁸ On the way-construction, [NP_j [V NP_j’s way OBL]], see Michael Israel, “The Way Constructions Grow,” in *Conceptual Structure, Discourse, and Language*, ed. Adele E. Goldberg (Stanford, CA: Center for the Study of Language and Information, 1996): 217–30. My sincere thanks to Michael for reading this essay and saving me from many, though surely not all, errors of linguistic analysis and argumentation.

⁹ For an extended treatment of the ditransitive construction, see Adele E. Goldberg, *Constructions at Work: The Nature of Generalization in Language* (Oxford: Oxford UP, 2006).

Constructions as abstract, pervasive, and semantically general as [Noun Phrase] [Verb Phrase]: "He dies" (*Julius Caesar*, 5.5.57 sd); "It wearies me" (*The Merchant of Venice*, 1.1.2); "You come most carefully upon your hour" (*Hamlet*, 1.1.6).¹⁰

I use the term "linguistic form" to refer only to those constructions that are at least partially lexically unfilled, abstract, variable, and therefore capable of producing and being instantiated in multiple distinct utterances. In what follows, I share three examples of the kinds of linguistic forms that could eventually become entries in a Shakespeare Constructicon. Building this new kind of reference genre, I will suggest, is a distinctly twenty-first-century project—one only recently made feasible by the combination of two kinds of digital technologies. First, discovering the available linguistic forms that Shakespeare inherited and used requires an advanced corpus query tool like CQPweb (cqpweb.lancs.ac.uk), which can search the roughly 44,000 *Early English Books-Text Creation Partnership* (EEBO-TCP) Phase I and II full texts using part of speech tags and regular expressions.¹¹ Second, the complex task of organizing the constructicon in a way that both represents its conceptual structure and allows users to consult it conveniently requires hypertext media and relational databases.

Building a constructicon is not simply a positivist exercise—an excuse to collect and catalogue more facts about Shakespeare's language—but a challenge to some of the most durable and entrenched notions of how language works. A Shakespeare Constructicon will require expanding our account both of the conventional linguistic knowledge that Shakespeare learned through experience and of how he employed that knowledge in writing the plays and poems as we have them. As a single repertoire of combinatory symbolic units of varying complexity and abstraction, the very notion of a constructicon puts pressure on the long-standing separation of grammar from lexicon. I propose building a Shakespeare Constructicon, then, as a way to prompt reconsideration of Shakespeare's linguistic creativity and his dependence on the linguistic culture that Stephen Greenblatt has rightly called "the supreme instance of a collective creation."¹²

¹⁰ I have adapted the continuum of constructions for inclusion in a constructicon from Goldberg, *Constructions at Work*, 5.

¹¹ See Andrew Hardie, "CQPweb—Combining Power, Flexibility and Usability in a Corpus Analysis Tool," *International Journal of Corpus Linguistics* 17.3 (2012): 380–409. All of my search results are from version three of the CQPweb EEBO-TCP Phase I and II texts, last checked on 15 March 2015. Because it is impractical to offer bibliographic details for the results retrieved from tens, hundreds, or thousands of documents, I instead provide the information needed to reproduce those results: corpus, version, date, and search string.

¹² Stephen Greenblatt, *Shakespearean Negotiations: The Circulation of Social Energy in Renaissance England* (Berkeley: U of California P, 1988), 4.

FILLING FORMS

There is no reason to suppose (and no evidence to suggest) that anyone had ever previously spoken or penned the particular sequence of nine words with which Hamlet begins his second soliloquy: "O, what a rogue and peasant slave am I!" (*Hamlet*, 2.2.577). Obviously, Shakespeare learned each of this line's component words and their meanings from his experience of talking to people and reading texts. It is possible to look up each of the line's lexical items—*rogue*, *peasant*, *slave*—in a general dictionary like the *Oxford English Dictionary*, a general Shakespeare dictionary, or, as of 2007, Paul Innes's dictionary of *Class and Society in Shakespeare*.¹³ We might research the history as well of the ostensibly pleonastic bigram "peasant slave," which Shakespeare could have encountered in a 1581 English translation of Seneca.¹⁴ Turning to formal considerations, we might note that Hamlet's line is an exclamation marked by the initial "O," the funny use of "what," and, in most modern editions, an exclamation point (although in the First Folio it is punctuated by a question mark).¹⁵ It contains a trope related but not identical to *hendiadys*: the expression of a single idea through two coordinated elements (Greek *hen dia duoin* = one through two), as when Macbeth uses "sound and fury" (*Macbeth*, 5.5.30) in place of "furious sound." Here, by contrast, three semantically proximate words—*rogue*, *slave*, and *peasant*—are composed into two coordinated noun heads, with the third word (*peasant*) subordinated to the second as an adjective, or perhaps into two attributive adjectives modifying a single noun head.¹⁶

Working in the framework of transformational grammar, an earlier generation of critics, such as Richard Ohmann, Donald Freeman, and Seymour Chatman, might also have offered a rule-based account of the grammar of Hamlet's exclamation. They might have first reconstructed a semantically determinative "deep structure" (*I am a rogue and peasant slave*) formulated according to a system of "base" or "phrase structure" rules, and then derived from it the surface structure that we hear on stage or read on the page through the transformation known as "wh-movement," which accounts both for the fronting of

¹³ Paul Innes, *Class and Society in Shakespeare: A Dictionary* (London: Continuum, 2007).

¹⁴ [Lucius Annaeus Seneca], *Hercules oetaeus*, trans. I[ohn] S[tudley], in *Seneca his tenne tragedies, translated into Englysh*, ed. Thomas Newton (London, 1581), 214.

¹⁵ Mr. William Shakespeares comedies, histories, & tragedies (London, 1623), STC 22273, 264.

¹⁶ See George T. Wright, "Hendiadys and Hamlet," *PMLA* 96.2 (1981): 168–93. The study of linguistic forms might be thought of as extending the rhetorical notion of *schema* or schemes, usually reserved for ornaments and artful deviations from the norm, to the whole of language, including ordinary speech. For the classic treatment of Shakespeare's "schemes of grammar," see Sister Miriam Joseph, *Shakespeare's Use of the Arts of Language* (New York: Columbia UP, 1947), 43–89.

“what” and the subject-auxiliary inversion “am I.”¹⁷ Digitally assisted inquiry suggests a different mode of analysis—one that proceeds by comparing the line not to a posited deep structure but to other actual, historically proximate utterances that share the same form. As Table 1 suggests, Shakespeare could have encountered at least forty-three instantiations of the linguistic form *what* [Indefinite Noun Phrase] [Copula] *I* in published texts prior to the entry of *Hamlet* into the Stationers’ Register in July of 1602—a number that obviously takes no account of the form’s prevalence in spoken language.

These utterances were retrieved using the search string *what* _AT* + * * * * _VB* *I*, where _AT* matches all articles (*a*, *an*, *the*), + * * * * matches between one and five words, and _VB* matches any form of the verb *to be*.¹⁸ Taken together, they offer considerable evidence that Hamlet’s opening line was produced by filling an inherited linguistic form for which the noun phrase blank specifies an insult and the resulting utterance serves as a self-reproach, lament, or self-accusation. Hamlet himself returns to the same linguistic form again only slightly later in the second soliloquy, populating it still more conventionally: “Why, what an ass am I!” (l. 611). The first quarto (Q1) publication of *Hamlet* in 1603, long thought to be a memorial reconstruction by the actor who played Marcellus, gives the soliloquy’s opening self-reproach as “Why what a dunghill idiote slave am I?”¹⁹ Whoever misremembered, rewrote, or wrote the Q1 line employed the same linguistic form, with the same semantics, pragmatics, and indeed prosody as the Folio and other quarto versions, but filled it with a different phrasal constituent.

It would not, of course, have been unacceptable or wrong to fill the linguistic form with an approbative noun phrase (*What a fair creature am I!*), but it would have been a deviation from the semantic and pragmatic conventions

¹⁷ My rehearsal of transformational analysis is obviously, and necessarily, both cursory and reductive. For a landmark treatment of “wh-movement,” see Noam Chomsky, “On wh-movement,” *Formal Syntax*, ed. Peter W. Culicover, Thomas Wasow, Adrian Akmajian (New York: Academic Press, 1977), 71–132. For leading examples of transformational approaches to literature, see Richard Ohmann, “Literature as Sentences,” *College English* 27.4 (1966): 261–67; Donald Freeman, “Keats’s ‘To Autumn’: Poetry as Process and Pattern,” *Language and Style* 11 (1978): 3–17; and Seymour Chatman, “Milton’s Participial Style,” *PMLA* 83.5 (1968): 1386–99.

¹⁸ I have omitted pattern matches that have an obviously different structure, as in the Epilogue to *As You Like It* where Rosalind complains, “What a case am I in then that am neither a good epilogue nor cannot insinuate with you in the behalf of a good play!” (7–9).

¹⁹ For a facsimile of the Q1 page, sig. E4v, see *Internet Shakespeare Editions*, http://internet-shakespeare.uvic.ca/Library/facsimile/book/BL_Q1_Ham/32. For an influentially skeptical response to the theory of memorial reconstruction, see Laurie E. Maguire, *Shakespearean Suspect Texts: The ‘Bad’ Quartos and Their Contexts* (New York: Cambridge UP, 1996). For the history of the reception and scholarly treatment of Q1, see Zachary Lesser, *Hamlet After Q1: An Uncanny History of the Shakespearean Text* (Philadelphia: U of Pennsylvania P, 2015).

Table 1: Instantiations of the form *what* [*Indefinite Noun Phrase*] [*Copula*] *I* from 1547 to 1602.

Date	Result
1547	what a wretch & Caitiff am I
1549	what a fool am I
1562	what a man am I
1566	what a mad man am I
1568	what a nody was I
1572	what a fool were I
1573	what a gross hedded fool am I
1574	what a foreign Being am I
1574	what a lively picture am I
1579	what a wretch am I
1579	what a coward am I
1582	what a wretch and caitiff am I
1582	what a state am I
1583	What a yeoman is I
1585	What a drunken wooer am I
1589	What a wretched fool am I
1589	what a doleful case am I
1590	what a lamentable case were I
1590	what a fool am I
1590	what a traitor am I
1592	What a Calimunco am I
1592	What a fool was I
1593	what a notable Ass indeed was I
1593	What a Calimunco am I
1593	what a fool am I
1594	what a miserable wretch am I
1596	what a fool am I
1596	what a fool am I
1596	what a doting fool was I
1597	what a fool was I
1597	What a wretch was I
1598	what a fool am I
1598	what a fool am I
1599	what a fool am I
1599	what a wretch am I
1599	what a pussell am I
1599	what a stock am I
1599	what a trouble am I
1599	What a villain was I
1599	what a villain am I
1600	what an horrible monster am I
1601	what a Caitiff am I
1602	what a beast am I

established by repeated use—conventions to which Shakespeare adhered over the entirety of his career. In his final exit from the stage, a disillusioned Caliban uses the form in the past tense to reproach himself for serving Stephano:

I'll be wise hereafter
And seek for grace. What a thrice-double ass
Was I to take this drunkard for a god,
And worship this dull fool!
(*The Tempest*, 5.1.351–54)

Throughout its instantiations in the First Folio, the noun phrase, the tense of the copula, and the indefinite article *a/an* vary, but the form and its function as self-accusation persist unchanged:

what a thrice double Ass Was I
what a beast am I
what a fool am I
what a beast was I
What a wicked Beast was I
What an Ass am I
what a Rogue and Peasant slave am I.²⁰

Studying this and other linguistic forms, as I have begun to suggest, is not a matter of formulating a system of general grammatical rules (as in descriptive grammars), or of establishing mechanisms of language variation and change (as with work in historical linguistics), or of measuring relative frequencies within a text or corpus (as with quantitative stylistics).²¹ Instead, the study of a linguistic form is, on the relatively small scale of the sentence, rather like getting to know one's way around the conventions of a genre: learning to recognize its parts, including which parts are fixed and which variable; surveying the range of constituents it accommodates; discerning its functions in the discourses in which it appears; situating it in a broader social and cultural milieu; and studying how its conventions have changed and evolved over time as a result of use. With more time, one might make

²⁰ Retrieved using the same search string in the CQPweb corpus of Shakespeare's First Folio.

²¹ As an inventory of Shakespeare's linguistic knowledge, a construction would not aim to characterize general processes of language change—processes like grammaticalization, lexicalization, pragmaticalization, discoursization, and so on. It would have no special regard for the diachronic phenomena (for example, changes in verb conjugation, the loss of the second person formal pronoun of address *thou*, shifts in the use of personal and impersonal relative pronouns, and so on) that typically occupy historical linguists. For a germane approach to language variation and change, see Elizabeth Closs Traugott and Graeme Trousdale, *Constructionalization and Constructional Changes* (Oxford: Oxford UP, 2013). For a recent quantitative stylistic analysis of Shakespeare using categories derived from the functional grammar of Michael Halliday, see Jonathan Hope and Michael Witmore, "The Hundredth Psalm to the Tune of 'Green Sleeves': Digital Approaches to Shakespeare's Language of Genre," *Shakespeare Quarterly* 61.3 (2010): 357–90.

the argument that *what* [*Indefinite Noun Phrase*] [*Copula*] *I* acquired its self-accusatory function within an English Protestant culture increasingly focused on what the *Thirty-Nine Articles of Religion* termed the “fault and corruption of the nature of every man”—a doctrine that held that no one, as Hamlet says, “shall ’scape whipping” (l. 556–57).²² Developing this argument would require one not simply to identify semantic and pragmatic consistency, but actually to read through the various instances of the form in context, asking the kinds of concrete philological questions that have long guided the study of words and phrases: Who was using it? For what ends? In what kinds of documents? A Shakespeare Constructicon would thus necessarily look beyond Shakespeare’s works to study the linguistic resources available in Elizabethan and Jacobean England. Only through comparison to other texts (as opposed to a deep structure) is it possible to make a credible case that “O, what a rogue and peasant slave am I!” instantiates a form that Shakespeare learned and used to produce new utterances. Just as one cannot reasonably claim to understand the generic form of the novel on the basis of having read only, say, Jane Austen’s *Emma*, so too is it misguided to seek to understand the linguistic form of an utterance in isolation. The analysis of linguistic forms does more than describe the abstract, syntactic structure of Shakespeare’s utterances; it also ascertains, through comparison, those forms’ conventional discursive function within the linguistic culture of Shakespeare’s day.

An advanced corpus query tool like CQPweb makes the comparative study of linguistic forms newly feasible, though it does not provide an apodictic or scientific way of doing so. Many qualifications are in order, but I will limit myself to three. First, because the *EEBO-TCP* texts comprise only a fraction of the utterances written (much less spoken) in sixteenth- and seventeenth-century England, they offer a partial, imperfect, and even distorted portrait of the linguistic culture in which Shakespeare came of age. Different kinds of documents, such as the early modern manuscript letters that are increasingly published and searchable online, promise to provide different evidence for the existence, identity, semantics, and pragmatics of linguistic forms.²³ Second, compounding error creeps into corpus queries at all levels. The photographic

²² See article nine in *The Church of England, Articles, whereupon it was agreed by the archbishops and bishops* (London, 1571), 7, sig. A4r.

²³ See, for example, the remarkable *Bess of Hardwick’s Letters* (the University of Glasgow and the Humanities Research Institute at the University of Sheffield, <http://www.bessofhardwick.org>) and the Folger Shakespeare Library’s *Early Modern Manuscripts Online* (<http://folgerpedia.folger.edu/EMMO> and <http://collation.folger.edu/2013/11/emmo-early-modern-manuscripts-online>), which will complement the *EEBO-TCP* texts with a sizeable archive of semidiplomatic translations of Folger manuscripts. For these kinds of archives to have a significant impact on research into linguistic forms they will need to be made accessible for use with advanced corpus query tools.

imaging of early modern printed books, the keying of full texts based on those images, the modernization (and standardization) of spelling, and the automated annotation of words with part of speech tags all introduce mistakes that should prompt humility about the results of one's searches.²⁴ Finally, how one searches for a form will determine what results one considers, and therefore what conventions are operative. Does Hamlet's line participate in the narrower form matched by *what a + * * * * am I*, which would exclude Caliban's "What a thrice-double ass / Was I" on the grounds of tense? Or is it instead an instantiation of the more general form retrieved by the search string *what + * * * * _VB* * (_N*|_P*)*, which would also include Hamlet's "What a piece of work is a man" (l. 327), an utterance with an obviously different discursive function?²⁵ The dilemmas expressed by these questions are far from trivial, but they will at least be familiar to literary scholars used to thinking about the classification problems posed by a hierarchical system of genres and subgenres.

A second example of a linguistic form that might earn an entry in a Shakespeare Constructicon makes evident the explicitly social stakes of this philological project. The Ghost of the dead King Hamlet returns to tell his son how he was "Cut off, even in the blossoms of my sin, / Unhouseled, disappointed, unaneled" (1.5.83–84). The words in the second of these lines each warrant an entry in a general Shakespeare lexicon, as well as in most editorial notes. The Arden3 series *Hamlet*, for example, glosses *unhouseled* as "without having taken the sacrament"; *disappointed* as "unprepared"; *unaneled* as "not anointed, i.e. without having taken extreme unction."²⁶ Using digital archives it would be easy enough to explore the history of these words, the various contexts of their use, their illocutionary force, etc. But this would tell us nothing of the linguistic form of the line: three coordinated, negated, multisyllabic, past (passive) participles in succession. Like the words it accommodates, this lexically unfilled form is also a sign that has a history, a discursive function, a meaning. The search query *_VVN * _VVN * _VVN* in CQPweb matches three past participles in succession, with the optional token symbol (*), sometimes called a wildcard, allowing for commas or concatenators.²⁷ The search string produces

²⁴ For the limitations of EEBO and digital archives more broadly, see Matthew Kirschenbaum and Sarah Werner, "Digital Scholarship and Digital Studies: The State of the Discipline," *Book History* 17 (2014): 406–58, esp. 419.

²⁵ In the Folger Digital Texts edition of *Hamlet*, the editors bracket the "a" to note its presence in the First Folio but not in Q2.

²⁶ *Hamlet*, ed. Ann Thompson and Neil Taylor, 3rd Series (London: Arden Shakespeare, 2006), 217.

²⁷ Searching for negated past participles is also possible using relatively simple regular expressions and part of speech tags: *(un*_VVN*|dis*_VVN*|in*_VVN*) * (un*_VVN*|dis*_VVN*|in*_VVN*) * (un*_VVN*|dis*_VVN*|in*_VVN*)*.

11,114 matches in 5,325 texts in the *EEBO* corpus as a whole, with 1,580 of the matches occurring in 749 texts before 1600.

That's a lot to read through instance by instance, even in an efficient snippet format, but grouping by frequency makes some patterns evident. Table 2 displays the most frequent instantiations of this form in the sixteenth and seventeenth centuries. Results like these have the potential to produce surprises in their own right: one hopes the variation in the order of the formula "hanged, drawn and quartered" was not reflected in the sequence of the punishments.²⁸ But reading down the list, a well-defined pattern emerges. With remarkable consistency, three passive past participles were in Shakespeare's day used in legal or liturgical formulae: "read, published, and enrolled," "made, promised, and subscribed," "concluded, accorded, and agreed," "agreed, appointed, and accorded," "predestined, called, justified." This form persists, with the same discursive function, in present-day English, perhaps most memorably in the Stevie Wonder song "Signed, Sealed, Delivered I'm Yours." In legal and liturgical contexts, the sequence of participles names and even performs official or ceremonial actions. The form is filled by *passive* participles so that those who perform the actions—the agents who will hang, draw, and quarter, or read, publish, and register, or agree, appoint, and accord, or house, appoint, and anneal—may do so as the indifferent and substitutable representatives of a corporate agency like the state or the church. It is filled by *past* participles because its function is to announce completed (or *perfect*) actions—proclamations irrevocably proclaimed; ceremonies concluded; contracts signed, sealed, and delivered. Hamlet's father negates each of the conventional form's sequence of participles to describe rites that have gone uncompleted, unfinished, unperformed with hellish consequences. The entry for this form in Shakespeare's Constructicon would not be just about its use in *Hamlet*. It would record the social provenance of the form, showing how it derives from and retains the imprint of a particular sphere of life—how, as Mikhail Bakhtin writes, it is "populated—overpopulated—with the intentions of others."²⁹ It would also observe the way that Shakespeare alters the inherited form, adapting it to the dramatic situation of the play through negation (un-, dis-, un-). Without the ability to identify and study the derivation of lexically unfilled forms like this one, we will be unable to

²⁸ In contrast to the first list of search results, I have not omitted false positives from this list, some of which, like "revealed and made known" and "supposed and taken for granted," have clearly different syntactic structures, albeit similar discursive functions.

²⁹ M. M. Bakhtin, *The Dialogic Imagination: Four Essays*, ed. Michael Holquist, trans. Caryl Emerson and Michael Holquist (Austin: U of Texas P, 1981), 294. For the best treatment of how Bakhtin's notion of dialogism can inform the study of Shakespeare's language, see Lynne Magnusson, *Shakespeare and Social Dialogue: Dramatic Language and Elizabethan Letters* (Cambridge, UK: Cambridge UP, 1999).

Table 2: The most frequent instantiations of three successive past participles in the *EEBO* corpus, 1474–1700.

Search result	Occurrences	Percent
hanged , drawn and quartered	146	1.31
revealed and made known	102	0.92
drawn , hanged and quartered	95	0.85
published and made known	62	0.56
hanged drawn and quartered	53	0.48
manifested and made known	47	0.42
granted , bargained and sold	43	0.39
drawn hanged and quartered	27	0.24
discovered and made known	27	0.24
concluded , accorded and agreed	27	0.24
Levied , Collected and paid	26	0.23
admitted , Instituted and Inducted	25	0.22
declared and made known	24	0.22
elected , called , justified	22	0.20
adjudged , deemed and taken	22	0.20
supposed and taken for granted	20	0.18
Printed and Published . Given	19	0.17
read , published and Registered	18	0.16
given , granted and confirmed	18	0.16
made known and discovered	17	0.15
devised , advised or required	16	0.14
covenanted , granted and agreed	16	0.14
limited , expressed and declared	14	0.13
laid , assessed , raised	14	0.13
assessed , raised and levied	14	0.13
preached and made known	14	0.13
predestined , called , justified	14	0.13
promulgated and made known	14	0.13
presented , instituted and inducted	14	0.13
given , taken and eaten	13	0.12
known , observed and practiced	13	0.12
Raised , Levied and Paid	13	0.12
Seen and allowed . Imprinted	12	0.11
made known and revealed	12	0.11
opened and made known	11	0.10
covenanted , concluded and agreed	11	0.10

hear a significant section of the social chorus in which Shakespeare sang, much less the peculiar and inventive ways that he joined his own voice to that chorus.³⁰

Neither of the linguistic forms I have explored so far were necessary elements of the grammar of early modern English, elements without which Shakespeare would not have been a competent user of the language. He could have written the opening line of Hamlet's second soliloquy without participating in the form *what [Indefinite Noun Phrase] [Copula] I*, since the line could be an instantiation of a more general, abstract, and semantically neutral form (or indeed a repetition of an utterance he heard elsewhere). Likewise, he did not need a tripartite linguistic form inherited from legal or liturgical utterances to write the line "Unhouseled, disappointed, unaneled"; he could have concatenated and negated three past participles without having heard or seen others doing so. For this reason linguistic forms of this kind make no appearance in traditional grammars, prescriptive or descriptive, and traditional grammars, conversely, tell us nothing about linguistic forms of this type beyond whether they are grammatically correct or not. A Shakespeare Constructicon, by contrast, would inventory not only the forms he necessarily possessed in common with his linguistic community at large, but also the contingent forms that he in fact possessed, though many other members of his community may not have. While the rules of Shakespeare's grammar, traditionally conceived, differ little or not at all from those of early modern English more generally, a constructicon would catalogue his idiolectal repertoire of linguistic forms—a repertoire that differs (as his lexicon does) from that of every other English speaker, before or since.

Though Shakespeare need not have possessed a linguistic form consisting in a sequence of three, concatenated past participles, this form, as I have described it, has a legal and ceremonial significance, a meaning and discursive function, that was not associated with past participles taken individually, with their concatenation, or with the words *unhouseled*, *disappointed*, or *unaneled*. Lexical analysis is unable to take account of this form's semantic and pragmatic role in the line. Whether the line is in fact an instantiation of this form, as Shakespeare had learned it from his linguistic community, and whether it consequently merits inclusion in a Shakespeare Constructicon is a question not of logical or

³⁰ I hasten to acknowledge that the best of Shakespeare's close readers are frequently able to hear the provenance even of abstract and unfilled linguistic forms. To my mind, no critic has been more talented in this regard than Stephen Booth. See his *Shakespeare's Sonnets: Edited with Analytic Commentary* (New Haven, CT: Yale UP, 1977) and *An Essay on Shakespeare's Sonnets* (New Haven, CT: Yale UP, 1969). I understand corpus query tools, in part, as hearing aids, prosthetic extensions of and partial replacements for the acuity of Booth's ear, which allow us to turn that acuity to the interpretive, historicist, and sociological aims his own criticism has largely abjured.

formal necessity but of philological judgment based on evaluating comparative and historical evidence (drawn from corpora like *EEBO*) as well as the evidence of Shakespeare's works themselves. For the sake of inclusion in a construction, one need only use this evidence to make the probable, contingent, historical case that a form was actually part of Shakespeare's linguistic repertoire and, as an abstract linguistic sign, had a particular meaning and discursive function.

If scholars were to undertake the project of reassembling Shakespeare's repertoire of linguistic forms, they would have at least one distinguished predecessor: Alexander Schmidt, whose *Shakespeare-Lexicon*, a massive work of nineteenth-century German philology, was first published in 1874 and was still in print, in updated editions, as late as 1987 with the English subtitle *A Complete Dictionary of All the English Words, Phrases, and Constructions in the Works of the Poet*.³¹ Schmidt's reference work lists the kinds of abstract and variable constructions that I have been calling linguistic forms under alphabetical word entries, with the consequence that the entries for grammatical function words like articles, prepositions, and the verb *to be* are exceptionally long. Consider extracts from the multicolumn entry for the article *the*:

The (often apostrophized before vowels) . . . the definite article, employed in general as at present: *the sun*, Ven. 1 . . . Sometimes instead of the possessive pronoun: . . . *he bites the lip*, R3 IV, 2, 27 . . . Before two comparatives, denoting corresponding gradation (cf. *Much*): *the mightier man, the mightier is the thing that makes him honoured*, Lucr. 1004 . . . The first comparative replaced by another form of expression, or supplied in thought: *her words are done, her woes the more increasing*, Ven. 254. *and that his beauty may the better thrive, with Death she humbly doth insinuate*, Ven. 254.³²

Under the heading of the word *the*, Schmidt describes what present-day linguists sometimes call the *comparative correlative* or *The Xer the Yer* construction.³³ In addition to giving a definition of *the*, he uses the entry to classify a linguistic form in which it plays a prominent role. (I see no indication that Schmidt was aware that the word *the* in the comparative correlative is not the definite article at all, but a descendant of the Old English demonstrative *Pe*, as linguists later established.) By way of comparison, David and Ben Crystal's *Shakespeare's Words* does not have an entry for the word *the*.

³¹ Alexander Schmidt, *Shakespeare-Lexicon: A Complete Dictionary of All the English Words, Phrases and Constructions in the Works of the Poet*, 2 vols. (Berlin: G. Reimer, 1874–75).

³² Schmidt, *Shakespeare-Lexicon*, 1201–2.

³³ The literature on the comparative correlative is extensive, but two articles have been especially influential: Charles J. Fillmore, "Varieties of Conditional Sentences," *Proceedings of the Third Eastern States Conference on Linguistics* 3, ed. Fred Marshall (1986): 163–82; and Peter W. Culicover and Ray Jackendoff, "The View from the Periphery: The English Comparative Correlative," *Linguistic Inquiry* 30.4 (1999): 543–71.

The example of Schmidt's *Shakespeare-Lexicon* is doubly instructive. First, it shows that the project of inventorying the repertoire of Shakespeare's linguistic forms is not just the product of a faddish linguistic theory or technological optimism but has fairly deep philological roots. Second, it illustrates some of the constraints that print tools and lexical organizational schemes have historically placed on the project of discovering, studying, and collecting Shakespeare's linguistic forms as well as his words.³⁴ The alphabetical order of Schmidt's volume is finally inadequate to the array of linguistic entities it aims to inventory and make available for consultation. Under what heading does a lexicon place linguistic forms, such as *what* [*Indefinite Noun Phrase*] [*Copula*] *I*, that have more than one fixed lexical component? Where does it record abstract linguistic forms that have variable word order, and therefore no first letter by which they can be alphabetized? There is no way to know, and the preface to Schmidt's work does not address the matter. It is unlikely, at any rate, that a speaker's grasp of the definite article *the* is sufficient to explain her ability to understand or use the comparative correlative. Still more seriously, alphabetical order is obviously insufficient for storing and retrieving linguistic forms, like the sequence of three past participles, that have no fixed or necessary lexical content and therefore no alphabetical content whatsoever. Finally, even if it were capable of supporting consultation, Schmidt's volume has no mechanism for expressing the network of hierarchical and lateral relations between linguistic forms—no way to locate forms in relation to their parents, children, or siblings.

Where print reference works fall short, the affordances of digital tools like hypertext media and relational databases offer promising, though by no means simple or readymade, solutions to the challenge of organizing a constructicon. Determining the hierarchical and lateral relations between linguistic forms will be especially tricky, but Shakespeare constructicographers can begin by looking both to the work of linguists like Charles J. Fillmore and Adele E. Goldberg and to the model provided by the Berkeley FrameNet Project, so far the only serious attempt to plan and execute a digital constructicon of late modern

³⁴ I do not suppose that print media are in some logical sense incapable of representing the complex structure of a constructicon, only that the organizational schemes historically instantiated in print have been insufficient. For treatment of an early modern example of a conceptually sufficient, albeit unusably baroque scheme, see Daniel Selcer, "The Uninterrupted Ocean: Leibniz and the Encyclopedic Imagination," *Representations* 98.1 (2007): 25–50. For an examination of how abstract linguistic forms might become part of the lexicographical project, see William Croft and Logan Sutton, "Construction Grammar and Lexicography," in *International Handbook of Lexis and Lexicography*, ed. Patrick Hanks and Gilles-Maurice de Schryver (New York: Springer, forthcoming). Croft and Sutton write that, at least in theory, lexicographers could become "constructicographers" and "dictionaries would then swallow grammars and become the compendium of all linguistic knowledge."

English.³⁵ Linguistic forms also pose a taxonomy problem that is lessened, though not solved, by databases and hypertext. While words, as it were, wear their own nametags, linguistic forms, in their abstraction and variability, are by nature anonymous. This means that if we wish to organize them, then they must, like the animals in Genesis, come forward to be given a name—or at the very least an address where they can be found. *FrameNet* relies on an unavoidably technical and idiosyncratic assortment of descriptive names that linguists have accreted over decades: names like “long.NPI,” “Degree_qualifier_realization,” “Reciprocal_predicate_pumping,” and even “Count-to-Mass. meat.” The form *X [Copula] X*, for which a prototypical instance is *when men were men*, is labeled the “tautology.nostalgia” construction, which is sensible enough if hardly transparent. But how many humanists, without substantial training, will gather from its name what the “Degree_qualifier_realization” is or means?

The taxonomy problem grows as the number of linguistic forms does. While a Shakespeare Constructicon will not be able to sidestep the need for a descriptive taxonomy of linguistic forms entirely, it could, I believe, be accessed and consulted in a more convenient and intuitive way than a general constructicon of the language, since it would aim to inventory only the linguistic forms that are instantiated in a finite and relatively small corpus: Shakespeare’s works. The utterances in these works would provide exemplars, representative instantiations, of all the linguistic forms inventoried in the constructicon, and would also consequently serve as addresses where those forms could be stored and consulted. A user who wished to look up the form or forms instantiated by “O what a rogue and peasant slave am I!” would not be required to memorize or recall the names of these forms but would instead search for or browse through to this line in *Hamlet*. Clicking on the line would bring up links to entries on the forms it instantiates, each with an account of its fixed and variable parts, discursive function, provenance, and relations to other forms. Clicking on a form like *what [Indefinite Noun Phrase] [Copula] I* would, in turn, bring up a list of the utterances in Shakespeare that instantiate it: Hamlet’s subsequent “Why, what an ass am I,” Caliban’s “What a thrice-double ass / Was I,” and so on. Especially for

³⁵ For a treatment of how abstract and variable constructions can be catalogued and represented in a constructicon, see Charles J. Fillmore, Russell R. Lee-Goldman, and Russell Rhodes, “The FrameNet Constructicon,” in *Sign-based Construction Grammar*, ed. Hans C. Boas and Ivan A. Sag (Chicago: Center for the Study of Language and Information, 2011): 309–72. For an account of the cognitive organization of constructions, see Adele E. Goldberg, *Constructions: A Construction Grammar Approach to Argument Structure* (Chicago: U of Chicago P, 1995), 67–100. The *FrameNet* lexicon is available at <http://framenet.icsi.berkeley.edu>. See also Hiroaki Sato, “A Search Tool for FrameNet Constructicon,” *Proceedings of the Eighth International Conference on Language Resources and Evaluation* (2012), www.lrec-conf.org/proceedings/lrec2012/pdf/563_Paper.pdf.

those who already have the plays and poems nearly by heart, this organizational scheme would make it relatively easy to consult and navigate the full repertoire of symbolic units, of various abstractness and complexity, that Shakespeare employed in writing.

No less crucially, a digital constructicon could support, as a printed reference volume could not, ongoing debate over the linguistic form of Shakespeare's utterances. Consider the opening words of Hamlet's most famous soliloquy, "To be or not to be" (3.1.64), which Peter Stallybrass takes as an illustration of how Shakespeare "appropriated for his own use what he read or heard."³⁶ Treating the soliloquy as a "tissue of quotations," a phrase he quotes from Roland Barthes, Stallybrass offers examples of texts leading up to the publication of the second quarto (Q2) of *Hamlet* that employ the same fixed sequence of six words, albeit with slight variation in orthography and punctuation:

- 1573 Ralph Lever: "to be or not to bée"
- 1584 Dudley Fenner: "to bee or not to be"
- 1588 Abraham Fraunce: "to bée, or not to bée"
- 1596 William Perkins: "to be or not to be"
- 1601 John Deacon: "to be, or not to be"
- 1603 Robert Rollock: "to be or not to be"
- 1604 Henoch Clapham: "to be, or not to be"
- 1604 William Shakespeare: "to be, or not to be."³⁷

Stallybrass is right to use database search results like these to "help free us from the tyranny of proprietary authors" and to challenge the *sui generis* originality of Hamlet's utterance by placing it alongside other utterances available in Shakespeare's linguistic community.³⁸ Yet the examples he gives, no less than Barthes's concept of "quotation," suppose an insupportably narrow account both of Shakespeare's creativity *and* of his capacity to appropriate. Like any competent speaker, Shakespeare could learn linguistic forms by generalizing across utterances, abstracting from words and phrasal constituents to variable categories. Like any competent speaker, he could also fill those categories in new yet situationally appropriate ways. An approach to intertextuality that limits appropriation to the quotation of fixed sequences of words does more than deflate notions of authorial propriety; it also prevents us from understanding how even new utterances, unattested sequences of words, are dependent on a larger linguistic community for their form.

³⁶ Peter Stallybrass, "Against Thinking," *PMLA* 122.5 (2007): 1580–87, esp. 1581.

³⁷ Stallybrass, "Against Thinking," 1581. For the notion of the text as a "tissue of quotations," see Roland Barthes, "The Death of the Author," in *Image Music Text* (New York: Hill and Wang, 1977), 142–48, esp. 146.

³⁸ Stallybrass, "Against Thinking," 1583.

A construction entry for Hamlet's "To be or not to be" would include multiple, potentially conflicting accounts of the linguistic knowledge that Shakespeare employed in writing the phrase. Presumably this knowledge included the words *to*, *be*, *or*, *not* and their meanings, as well as how to employ *to* and *be* together as an infinitive verb, *or* as a disjunctive, and *not* as a negation.³⁹ Though this knowledge alone may be sufficient to account for the composition of the line, we should not rule out the possibility that Shakespeare appropriated and repeated the fixed sequence of words "to be or not to be," whether from one or more of the texts listed by Stallybrass or from some other source. Yet such appropriation is not as simple as the extracts offered by Stallybrass make it appear. Though Fraunce and Rollock, like the other authors on the list, wrote precisely the same sequence of words as Shakespeare, they nevertheless wrote that sequence as part of a different phrase structure in which *to be or not to be* takes a predicative complement: in Rollock's religious treatise, "after his death"; in Fraunce's logic handbook, "the cause, effect."⁴⁰ Appropriating Hamlet's phrase from either of these sources would have required altering its structure, truncating the complement, and reinterpreting the copular use of *to be* as an existential, an assertion of existence or life. Appropriation is only sometimes a matter of quotation or repetition; it often entails complex grammatical knowledge and linguistic creativity in its own right.

A part of speech tagged corpus like CQPweb makes it feasible to consider comparative evidence for one further account of the phrase's linguistic form, *to X or not to X*, where *X* is an infinitive verb. Ordered by frequency, the 190 results returned by the search string to *_V+I * or not to _V+I* (in which *_V+I* matches all infinitive verbs including *be* and *have*) suggest the prevalence of this form in texts published before 1600 (see Table 3).⁴¹ In its most general use, *to X or not to X* denotes the disjunction between contradictory alternatives. But the form also acquired a more specific function in the Reformation discourse of Christian liberty, as a 1591 pamphlet by the clergyman George Gifford makes evident:

there are certayne middle actions, and things, which we call indifferent, because if we simply respect them in themselves, or in their owne nature, they bee neither good nor euil. In these consisteth one part of Christian libertie **to use or not to use** with knowledge and discretion. Now if we respect [th]e very

³⁹ I say "presumably" because this is not always the case: one might, for example, know that the variable idiom *hoist with [Possessive Pronoun] own petard* (as in *Hamlet*, 3.4.230) roughly means *hurt by [his, her, its, their, our] own plan* without also knowing the meaning of the words *hoist* (lifted, launched) or *petard* (bomb).

⁴⁰ Robert Rollock, *A treatise of Gods effectual calling*, trans. Henry Holland (London, 1603), 177, sig. X3; Abraham Fraunce, *The lavyers logike* (London, 1588), 87, sig. A[a]3r.

⁴¹ Not all of the 190 results are true positives, though all of the most frequent results listed in Table 3 are.

Table 3: The most frequent instantiations of the form *to X or not to X* before 1600.

Search result	Occurrences	Percent
to do , or not to do	10	5.26
to be or not to be	10	5.26
to believe or not to believe	9	4.74
to do or not to do	7	3.68
to eat or not to eat	7	3.68
To marry or not to marry	6	3.16
to be done or not to be done	6	3.16
to believe , or not to believe	5	2.63
to use or not to use	5	2.63
to use , or not to use	3	1.58

nature of these things, no Prince or church can change it, as to make them to become necessarily good, or necessarily euil in themselves to the conscience.⁴²

In this discourse, *to X or not to X* indicates actions that are at once contradictory *and* indifferent—actions that, because they are neither commanded nor prohibited by Scripture, good nor evil in themselves, Christians are free to perform or omit.⁴³ Glossing Paul's First Letter to the Corinthians 7:23, "Ye are bought with a price, be not the servants of men," the Protestant polemicist (and former Catholic priest) Thomas Bell writes in 1596 that it is "as if [Paul] had said, **to marrie or not to marrie** is in your owne election, let therefore neither Jew nor Gentile ouerrule your libertie, let none entangle your consciences, let none bring you into faithlesse bondage, let none impose that heauy yoke vpon your necks, which yee are no way able to beare."⁴⁴ Though discussions of this sort occurred most frequently in theological writings, Elizabethan parishioners attending services each week would have likely heard preachers fill *to X or not to X* with a variety of verbs (do, use, marry, eat, drink, give, lend, write, abstain,

⁴² George Gifford, *A short reply* (London, 1591), 86, sig. M2v, with emphasis added.

⁴³ The chief sources of the Protestant doctrine of Christian liberty were Martin Luther, "The Freedom of a Christian," in *Luther's Works*, ed. Harold J. Grimm, trans. W. A. Lambert, rev. Harold J. Grimm (Philadelphia: Muhlenberg Press, 1957), 33:333–77, and book 3, chapter 19 of John Calvin, *Institutes of the Christian Religion*, trans. Henry Beveridge (London: James Clarke, 1949), 2:130–42. For a brief survey of the doctrine of Christian Liberty and its history in England, see Arthur Barker, "Christian Liberty in Milton's Divorce Pamphlets," *The Modern Language Review*, 35.2 (1940): 153–61, esp. 153–56.

⁴⁴ Thomas Bell, *The suruey of popery* (London, 1596), 260, sig. S3v, with emphasis added. Bell gives 1 Cor. 7:23 as it appears in *The Newe Testament of Ovr Lorde Iesvs Christ*, trans. Theod[ore] Beza and L[aurence] T[omson] (London, 1578), 183.

confess, and sing all appear in the *EEBO* corpus), especially when the proof text was from Paul's epistles.

Did Shakespeare read or hear one or more of these utterances? He was certainly capable of abstracting from them to the linguistic form *to X or not to X*, but did he in fact do so? Is "To be or not to be" an instantiation of this form with the specific function it acquired in Reformation discourse? Would the audience of *Hamlet* (including Shakespeare himself, if only as a reader and reviser of his own writing) have understood it as such? Though it is impossible to say for certain, we cannot rule out an affirmative answer to these questions any more than we can rule out the possibility that Hamlet's words are merely a quotation. The plausibility of an affirmative answer depends on more than the evidence of the corpus. We should be compelled by an analysis of an utterance's linguistic form when it aids in successful, fruitful, credible interpretation. If Hamlet utters "To be or not to be" as an instantiation of the discursively specific form *to X or not to X*, he does so not simply as the expression of an abstract choice between contradictory alternatives, being and not being. Rather, in his despondency he considers nothing less than his own life under the category of things indifferent. He regards his own continued existence as neither good nor bad in itself. He treats the mortal sin of suicide as an action that, if not prescribed, is not proscribed either. Instead of simply weighing the benefits of life and death, Hamlet subsequently engages in an attempt to discover or create, in the space of indifference opened by the evacuation of law, the minimal difference that he calls "the rub" (3.1.73) as the ground for deliberation and choice.

A scholar adds an item to Shakespeare's linguistic repertoire by giving a new account of the form of an utterance in the poems and plays. Such accounts will inevitably lead to debate, which a Shakespeare Constructicon will need to support. A debate about the form of an utterance is also, as we've seen, a debate about what symbolic units compose it and consequently how to interpret its meaning and use. Literary scholars regularly argue over words, but except in cases of textual instability their arguments concern how, rather than whether, a word is used. Because linguistic forms are abstract, which form or forms utterances instantiate will also be the subject of debates that cannot be put to rest by pointing to a discrete set of marks on a page. These debates promise to grow and mature as scholars use new digital corpora and corpus query tools to assemble the evidence necessary for developing multiple, interpretively consequential, and potentially incompatible accounts of the form of even ostensibly simple utterances like "To be or not to be."

THE DIVISION OF THE KINGDOM

Theorists have long divided the kingdom of language, drawing a border between *lexicon*, a mental inventory of words and their meanings, and *gram-*

mar, a system of rules for composing words into utterances. Noam Chomsky's linguistic theory, from early transformational generative grammar to the current Minimalist Program, has deepened the separation between lexicon and grammar. Grammar, for Chomsky, is an elegant, universal, biologically determined, innate, *a priori* formal and computational system of general principles. The autonomy of grammar thesis, which Chomsky first advanced in his groundbreaking 1957 work, *Syntactic Structures*, isolates grammar from semantics and pragmatics, meaning and use, as well as culture and history.⁴⁵ The messiness, idiosyncrasy, contingency, and redundancy of culture and history are exiled to the lexicon, leaving the uncontaminated domain of grammar computationally optimal, economical, and, in the regulative idea of Minimalism, even "perfect."⁴⁶

In the divided kingdom, grammar is ruled by systems theorists, logicians, computer and cognitive scientists, biologists, and psychologists, while humanists, as students of culture, are confined solely to the lexicon. I take the continuing lexicocentrism of cultural studies, its focus across disciplines on "key-words," as a kind of *de facto* consent to this division. That is, even when they have explicitly rejected the universalism, essentialism, and biologism of Chomsky's theories of language, humanists have in practice accepted the autonomy of grammar.⁴⁷

The philosopher Donald Davidson accurately surveys the currently divided kingdom of language when he writes that the "systematic knowledge or competence of the speaker or interpreter" must include "the semantic role of each of a finite number of words or phrases" and "the semantic consequences of a finite number of modes of composition."⁴⁸ Linguistic forms upset this division of the kingdom. They are dual citizens of lexicon and grammar, at once semantic and syntactic. Like the words of a "finite vocabulary," they are meaning-bearing signs

⁴⁵ See Noam Chomsky, *Syntactic Structures* (Berlin: Walter de Gruyter, 1957), 17.

⁴⁶ On the notion of perfection in the Minimalist Program, see Noam Chomsky, *The Minimalist Program* (Cambridge, MA: MIT Press, 1995), 9; and "Minimalist Inquiries: The Framework," in *Step by Step: Essays in Minimalist Syntax in Honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka (Cambridge, MA: MIT Press, 2000), 89–155, esp. 93–98.

⁴⁷ The career of the early modern scholar Annabel Patterson is emblematic of the trajectory of cultural and historicist scholarship more generally. Following her brilliant critique of transformational approaches to style in "'How to Load and . . . Bend': Syntax and Interpretation in Keats's *To Autumn*," *PMLA* 94.3 (1979): 449–58, Patterson's work has turned ever more to the study of keywords, as in "Keywords: Raymond Williams and Others," *English Studies in Canada* 30.4 (2004): 66–80 (part of a projected book titled *Rusty Keywords*) and *Milton's Words* (Oxford: Oxford UP, 2009).

⁴⁸ Donald Davidson, "A Nice Derangement of Epitaphs," in *The Essential Davidson* (Oxford: Oxford UP, 2006), 251–65, esp. 255.

possessing a “distinct semantic role.”⁴⁹ Like words, one learns them by making generalizations based on one’s experience of what other speakers have said and written. Yet linguistic forms are also “modes of composition.”⁵⁰ They allow us to construct utterances according to conventions that are often highly complex and culturally specific. To use a form it is necessary to learn not just its discursive function but also its combinatory potential, how its categories may be filled to produce various utterances.

So far as I can tell, no linguist denies the ability of speakers to learn and produce new utterances by filling discrete forms like *What [Indefinite Noun Phrase] [Copula] I*, or a sequence of three past participles, or *to X or not to X*. (I trust by this point that you, dear reader, could produce new instances of each of these forms.) Yet the discipline of linguistics is deeply split on the issue of what role these forms play in the human *faculté de langage*. For Chomsky and the followers of his Minimalist Program, they are part of the “periphery” of our language capacity—“historical residues” and cultural idiosyncrasies that are to be “eliminated” by the proper formulation of the panhuman principles that constitute grammar’s innate “core.”⁵¹ In cognitive and constructional approaches, by contrast, linguistic forms are constitutive of human language capacity. Our linguistic knowledge is nothing other than a “structured inventory of symbolic units” stretching from morphemes and words to the most abstract, pervasive, and semantically general linguistic forms.⁵² In this view, there is no need to posit a universal grammar, as Chomsky does, since the knowledge of these culturally inherited forms is sufficient for the combinatory work of assembling words into the theoretically infinite possible utterances of human language. In Adele Goldberg’s formulation, “the network of constructions captures our grammatical knowledge of language *in toto*, i.e. it’s constructions all the way down.”⁵³

Without adopting the highly specific evidence, methods, and modes of argumentation of the discipline of linguistics itself, Shakespeare scholars are unlikely to make a meaningful theoretical contribution to this debate, on either side. But

⁴⁹ Davidson, “A Nice Derangement,” 256.

⁵⁰ Davidson, “A Nice Derangement,” 256.

⁵¹ For the goal of eliminating constructions from grammar, see Noam Chomsky, “A Minimalist Program for Linguistic Theory,” in *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, ed. Kenneth Hale and Samuel Jay Keyser (Cambridge, MA: MIT Press, 1993), 1–52, esp. 4. For claims regarding the “periphery” and “historical residues,” see his *Lectures on Government and Binding: The Pisa Lectures* (Berlin: Mouton de Gruyter, 1981), 8.

⁵² For the notion of grammar as “a structured inventory of symbolic units,” see Ronald Langacker, *Foundations of Cognitive Grammar* (Stanford: Stanford UP, 1991), 2:152.

⁵³ Goldberg, *Constructions at Work*, 18; I have removed bold lettering. For a clear, if not impartial, account of the debate between cognitive and generative accounts of language, see Croft and Cruse, *Cognitive Linguistics*, 752–58.

building a Shakespeare Constructicon does not require staking out or defending a theoretical position on the human language faculty as such. Instead, it represents a practical attempt to reunite the separate domains of lexicon and grammar into a single kingdom of sign units of various complexity and abstraction, and thereby to reject the de facto confinement of cultural and historicist literary studies to the lexicon.⁵⁴ That the current division of the kingdom still structures and limits our understanding of Shakespeare's language is most plainly manifest in the existence of two different genres of reference works. Centuries of dictionaries, glossaries, indexes, concordances, and vocabularies, as I have noted, represent the lexical domain. The ongoing publication of these lexical reference works suggests that they are in perennial need of revision, elaboration, and specification, much in the way that plays warrant being restaged over and over again. In the past century and a half, by contrast, only four works of Shakespeare reference have systematically represented the domain of grammar: Edwin Abbott's *Shakespearean Grammar* (1869), Wilhelm Franz's *Shakespeare-Grammatik* (1898, written in German), N. F. Blake's *Grammar of Shakespeare's Language* (2001), and Jonathan Hope's *Shakespeare's Grammar* (2003).⁵⁵ Whereas the lexicons have proliferated in ever-more specialized forms to accommodate the rich, messy, and idiosyncratic vocabulary of Elizabethan and Jacobean culture, the intermittent grammars are works of exacting parsimony and rigorous abstraction. In its Platonic ideal, a constructicon would obviate the need for separate Shakespeare dictionaries and grammars, capturing and making available for consultation the full range of Shakespeare's linguistic knowledge in a single organon.

Much of what will be included in a Shakespeare Constructicon is already known. The field of Shakespeare's words has been harvested for many seasons. New accounts of the most pervasive, abstract, and semantically general forms, like the noun phrase or the passive voice, are unlikely to differ much, if at all, from the accounts already developed in the grammars of Blake or Hope. Yet there are more things in Shakespeare's language than are catalogued in our lexicons or grammars. Reunifying the kingdom of language would bring into view the vast and largely undiscovered country of partially and wholly unfilled forms

⁵⁴ Shakespeare scholars have led cultural and historicist approaches to the study of grammar and syntax. See Magnusson, *Shakespeare and Social Dialogue*, and, more recently, her "Play of Modals: Grammar and Potential Action in Early Shakespeare," *Shakespeare Survey* 62 (2009): 69–80; Sylvia Adamson, "Questions of Identity in Renaissance Drama: New Historicism Meets Old Philology," *Shakespeare Quarterly* 61.1 (2010): 56–77; and Brian Cummings, *The Literary Culture of the Reformation: Grammar and Grace* (Oxford: Oxford UP, 2002).

⁵⁵ Edwin Abbott's *Shakespearean Grammar* (London: Macmillan, 1869); Wilhelm Franz, *Shakespeare-Grammatik* (Cöthen, Ger.: O. Schulze, 1897); N. F. Blake, *A Grammar of Shakespeare's Language* (Basingstoke, UK: Palgrave, 2001); and Jonathan Hope, *Shakespeare's Grammar* (London: Arden, 2003).

that lies between the well-charted domain of words and phrases to the south and the well-charted domain of grammar to the north. Exploring this country—what we might think of as the overlooked midlands of Shakespeare’s language—will require scholars to get comfortable using the digital tools made by corpus linguists, but it will otherwise employ, in the study of abstract linguistic entities, the philological skills and the literary and cultural expertise they already possess: the ability to read the poems and plays closely and comparatively with attention to how they draw on and rework the language of other period texts and discourses. In studying linguistic forms, not one jot or tittle of a scholar’s cultural, historical, and literary training passes from use. If the project of building a systematic constructicon from scratch is too daunting, then we might begin more modestly by gathering a collection of Shakespeare’s most culturally consequential keyforms on the model of Raymond Williams’s *Keywords*.⁵⁶ I began this essay by noting that Shakespeare has long sponsored a sizeable portion of English lexicography; I close with a wager that, as a name, a figure, and a body of texts, he remains capable of sponsoring new kinds of philological inquiry as well.

⁵⁶ Raymond Williams, *Keywords: A Vocabulary of Culture and Society*, rev. ed. (Oxford: Oxford UP, 1985).