#### PAUL'S USE OF NOMOΣ: TORAH, LAW, OR CUSTOM?

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# L1 Introduction

This paper uses the computational linguistic tool vector space modeling in order to analyze the lexeme  $v \delta \mu o \zeta$  and its semantic domains with the ultimate goal of providing a monosemic linguistic description for this lexeme. The ongoing conversation about the meaning of  $\nu \delta \mu \rho c$  has been problematic, but has benefited most from research that engages with modern linguistics. In an effort to continue this endeavour, I will look at various positions on the topic. Next, I will analyze the lexeme  $v \delta \mu o c$  in two ways: (1) I will attempt to outline its substantive content and (2) its paradigmatic value as a monosemous signifier within the language system of Hellenistic Greek. Finally, I will conclude the paper with a discussion of the translation of  $\nu \delta \mu o \zeta$ , asking whether, in light of the analysis in this paper,  $\nu \delta \mu \rho \varsigma$  ought to be consistently glossed as "law," or whether other alternatives such as "custom" or "tradition" might be more appropriate in some cases. The assumption of this paper is that to understand Paul's use of  $\nu \delta \mu \rho \sigma$  we ought to begin with a baseline description of the term as a part of the language system. I will argue in this paper that the baseline semantic contribution of  $\nu \delta \mu \sigma \zeta$  is probably not "law," but rather "custom"—a socially upheld but not necessarily legislated norm.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> There are several issues I will have to set aside for the purposes of this study. In particular, I will not attempt to analyze the meanings of the English terms employed as glosses, though doing so would provide valuable insight into the task of translation, due to issues of scope. I will not engage with a critique of the practice of glossing, nor will I define terms like *synonymy*. I will simply note that the problems of glossing have been discussed in numerous places, and interpreters and translators ought to be aware of the benefits as well as drawbacks of glosses as representations of meaning. Furthermore, terms like *synonymy* are variously understood.

## L1 A Brief Survey of Scholarship on Νόμος

As mentioned, the conversation about the meaning of  $\nu \delta \mu o \varsigma$  has been problematic, generating multiple positions on the topic, often without any linguistic criteria by which to evaluate the various arguments.<sup>2</sup> I will briefly outline some—by no means all—of the questions and positions that have been offered, and then move into a discussion of my own methodology in the next section.

Although he takes the position that "Not all the Pauline passages that employ the word 'law' ( $v \delta \mu o \varsigma$ ) may necessarily refer to the Mosaic Law,"<sup>3</sup> Andrew Das points out that the more general tendency has been in the opposite direction. "Scholars have been gravitating in recent years," he claims, "toward a more consistent translation of  $v \delta \mu o \varsigma$  as Torah in Galatians and Romans."<sup>4</sup> While scholars sometimes point directly to specific instances of  $v \delta \mu o \varsigma$  where it seems to be referring to the Torah, there is a tendency to slide into sweeping generalizations. Wright,

Future attempts to map distributional data in order to represent distributional semantic domains will need to engage with some of these issues further. My goal in this study is to make an initial attempt to implement such an approach in order to invite other researchers to begin to explore the issues and possibilities it entails.

<sup>&</sup>lt;sup>2</sup> For a good survey of various treatments of νόμος in Paul, see Michael Winger, *By What Law? The Meaning of Nόμος in the Letters of Paul* (sector), 21–32.

<sup>&</sup>lt;sup>3</sup> A. Andrew Das, "Paul and the Law: Pressure Points in the Debate," in Mark D. Given (ed.), *Paul Unbound: Other Perspectives on the Apostle* (Peabody, MA: Hendrickson, 2010), 99–116, here 110.

<sup>&</sup>lt;sup>4</sup> Das, "Paul and the Law," 113. Francis Watson ("The Law in Romans," in Jerry L. Sumney [ed.], *Reading Paul's Letter to the Romans* [SBLRBS 73; Atlanta: SBL, 2012], 93–107, here 93), for example, claims, "Paul uses the word *nomos* ('law') on seventy-two occasions in Romans, and in all but a few cases the reference is to the Torah, the law of Moses whose five books are foundational to Jewish Scripture." E.P. Sanders (*Paul, the Law and the Jewish People* [Philadelphia: Fortress, 1983], 117) says, "I would urge, however, that when Paul used the word *nomos* [at least in Phil 3:3 and Rom 2:29] he meant the Jewish Scripture, or the will of God as revealed in it." However, cf. Sanders, *Paul, the Law and the Jewish People*, 3. Stephen Westerholm (*Perspectives Old and New on Paul: The "Lutheran" Paul and His Critics* [Grand Rapids: Eerdmans, 2004], 299) notes that "the 'law' in Paul's writings frequently (indeed, most frequently) refers to the sum of specific divine commandments given to Israel through Moses." N.T. Wright ("The Law in Romans 2," in James D. G. Dunn [ed.], *Paul and the Mosaic Law: The Third Durham-Tübingen Research Symposium on Earliest Christianity and Judaism, Durham, September, 1994* [Grand Rapids: Eerdmans, 2001], 131–50, here 137–38) argues that the meaning of phrases like vóµoç πίστεως "is of course likewise controversial, but I am increasingly persuaded that the best course is to treat vóµoç as referring to the Jewish law throughout [Romans 2]."

for example, declares, "The law,  $v \delta \mu o \varsigma$  in Paul, is the Jewish law."<sup>5</sup> Linguistics, while rarely an important aspect of the discussion, is sometimes used to marshal generalizations that support a particular view. Some, for example, find no inherent difference between articular and anarthrous  $v \delta \mu o \varsigma$ .<sup>6</sup> This claim is probably an overreaction to the claim that  $v \delta \mu o \varsigma$  with the article always refers to Torah. Examples of this opposite claim, while even more problematic, are nevertheless proposed.<sup>7</sup> Many scholars rely on Winger's study of  $v \delta \mu o \varsigma$ , which notes, "N $\delta \mu o \varsigma$  is to be identified with the practices that constitute Jewish ethnic particularity—'what Jews do'."<sup>8</sup> However, others understand  $v \delta \mu o \varsigma$  as consistently referring to Jewish scripture in part or whole, and in so doing there is a tendency to interpret instances of the term  $v \delta \mu o \varsigma$  in Paul as innerbiblical allusions.<sup>9</sup> In other words, if Paul's use of  $v \delta \mu o \varsigma$  refers (at least most of the time) to part

<sup>&</sup>lt;sup>5</sup> Wright, "Law in Romans 2," 149.

<sup>&</sup>lt;sup>6</sup> James D. G. Dunn (*The Theology of Paul the Apostle* [Grand Rapids: Eerdmans, 1998], 133) claims, "But as a rule we can assume that when Paul spoke of *nomos* and *ho nomos* he was thinking of the Torah."

<sup>&</sup>lt;sup>7</sup> Richard B. Hays ("Three Dramatic Roles: The Law in Romans 3–4," in James D. G. Dunn [ed.], *Paul and the Mosaic Law: The Third Durham-Tübingen Research Symposium on Earliest Christianity and Judaism, Durham, September, 1994* [Grand Rapids: Eerdmans, 2001], 151–64, here 151) provides a good example of such a position, which will be discussed further below. He claims, "In the first instance, the term ὁ νόμος refers in Paul's usage to the Law given by Moses to Israel." While Hays here includes the article as a modifier of νόμος, he finds reference to the Mosaic law even without such modification. For example, see his translation of LXX Isa 51:4, where νόμος (anarthrous) is translated as "the Law" (Hays, "Three Dramatic Roles," 159).

<sup>&</sup>lt;sup>8</sup> Hays, "Three Dramatic Roles," 153; Winger, *By What Law*? 109. This may not be precisely what Winger was saying at this point; Winger proposes that νόμος in Paul's letters usually *refers* to Jewish νόμος (cf. Winger, *By What Law*? 86).

<sup>&</sup>lt;sup>9</sup> Unlike Winger, Hays doesn't consistently take νόμος as a set of practices. While claiming (Hays, "Three Dramatic Roles," 153–54) that νόμος πίστως is an enigmatic phrase, he says, "If, however, νόμος τῶν ἔργων means something like 'Torah construed through the hermeneutical filter of distinctively Jewish practices,' then its opposite, νόμος πίστως, must mean 'Torah construed through the hermeneutical filter of πίστις,' the Law as read through the eyes of faith." He goes on to claim, "To interpret the word νόμος in this formulation as having merely the generic meaning of 'principle' or 'rule' is to underinterpret Paul's theologically-laden language and to disregard the fact that he has been consistently using νόμος to refer to Israel's Law" (Hays, "Three Dramatic Roles," 154). However, it ought to be noted that he takes νόμος in Romans 4 as referring to "not the Mosaic covenant, but Scripture taken as a *narrative* whole" (Hays, "Three Dramatic Roles," 156), which he also claims is the case in Rom 3:31 (Hays, "Three Dramatic Roles," 158). By the end of his essay, νόμος actually ends up exclusively referring to Scripture: "Ο νόμος is always the same collection of texts, but the import of those texts shifts dramatically in accordance with the hermeneutical perspective at each stage of the unfolding drama" (Hays, "Three Dramatic Roles," 164). Cf. James D. G. Dunn, "In Search of Common Ground," in *Paul and the Mosaic Law: The Third Durham-Tübingen Research Symposium on Earliest Christianity and Judaism, Durham, September, 1994* (Grand Rapids: Eerdmans, 2001), 309–34, here 321.

or all of the Jewish scriptures, then Paul's discussion of νόμος can be understood as providing, in

effect, divinely-inspired theological evaluation of the Old Testament.

Longenecker evidences this kind of approach by assuming that νόμος refers to Mosaic

law even in instances where another law is explicitly in view.<sup>10</sup> As a case in point, regarding Gal

6:2-τὸν νόμον τοῦ Χριστοῦ-he claims,

There is some cause to think that Paul is significantly redefining things here, but it seems unwise to evaporate all reference to the Mosaic law in this phrase . . . The concept of law has undergone such a drastic redefinition with reference to the Spirit of Christ and the community of Christ that Paul can go so far as to identify it as the 'law of Christ'— that is, the Mosaic law that comes to its fullest and proper expression in the relationship of mutual service within the community of those whose lives are being transformed by the Spirit of Christ.<sup>11</sup>

On the positive side, the position that  $v \delta \mu o \varsigma$  almost always refers to Mosaic law has the support

of common sense. After all, there is a long tradition of glossing תוֹרָה with νόμος. As

Lichtenberger points out, "Torah is translated nomos in almost all the 270 instances [in the

LXX]."12 Because of this common gloss, Rosner explains that "In terms of referent, both Hebrew

tôrâ and Greek nomos in Jewish and Christian writings frequently denote the first five books of

the sacred Scriptures attributed to Moses, often labelled the 'Pentateuch' or 'Torah'."<sup>13</sup> Rosner

is correct to point out that  $\nu \delta \mu \rho \varsigma$  can, and often does, refer to the Torah, but the question we

<sup>&</sup>lt;sup>10</sup> At least insofar as the explicit cotext indicates (i.e. by the genitive modifier).

<sup>&</sup>lt;sup>11</sup> Bruce W. Longenecker, "Defining the Faithful Character of the Covenant Community: Galatians 2.15–21 and Beyond," in James D. G. Dunn (ed.), *Paul and the Mosaic Law: The Third Durham-Tübingen Research Symposium on Earliest Christianity and Judaism, Durham, September, 1994* (Grand Rapids: Eerdmans, 2001), 75–97, here 92–93.

<sup>&</sup>lt;sup>12</sup> Hermann Lichtenberger, "The Understanding of the Torah in the Judaism of Paul's Day: A Sketch," in James D. G. Dunn (ed.), *Paul and the Mosaic Law: The Third Durham-Tübingen Research Symposium on Earliest Christianity and Judaism, Durham, September, 1994* (Grand Rapids: Eerdmans, 2001), 7–23, here 17.

<sup>&</sup>lt;sup>13</sup> Brian S. Rosner, *Paul and the Law: Keeping the Commandments of God* (New Studies in Biblical Theology 31; Downers Grove, IL: IVP, 2013), 28. Rosner (*Paul and the Law*, 27) explains, "Torah or 'law' most commonly came to denote not just Deuteronomy, some collection of laws, or even the contents of the Sinai covenant, but rather the first five books of the Bible together."

are left with—a question that is rarely addressed in a straightforward manner—is precisely what made νόμος a useful gloss for תּוֹרָה.

Scholars have more typically attempted to delineate the referents of  $v \delta \mu o \varsigma$  without necessarily attempted to outline what  $v \delta \mu o \varsigma$ —rather than some other term—contributes to the text. In his monograph dedicated to Paul's use of  $v \delta \mu o \varsigma$ , *By What Law?*, Winger attempts to remedy this oversight, and so proposes to "attempt to determine the meaning of  $v \delta \mu o \varsigma$  through a survey of patterns in its usage, and an analysis of what these patterns imply about the meaning of the term."<sup>14</sup> However, Winger was not the first to analyze  $v \delta \mu o \varsigma'$  s patterns of usage. In fact, there is a common enough assumption that the difference between  $\delta v \delta \mu o \varsigma$  and  $v \delta \mu o \varsigma$  is the difference between referring to the Torah and referring to some other law, or to law in general. After all,  $\delta v \delta \mu o \varsigma$  means "*the* law." In short, this notion is unsustainable. As Winger points out (see discussion below), such a view confuses *meaning*, or better, *sense*, with *reference*. The sense of the term is conflated with the extralinguistic entity being referred to by the writer who uses the term.

Origen was one of the earliest writers who tried to formulate a rule regarding the reference of νόμος, but his understanding is generally rejected by scholars. Origen says,

There is moreover a noteworthy distinction made by the Apostle in relation to this expression, if one observes very carefully. It is customary in Greek to place  $\alpha \rho \theta \rho \alpha$  before nouns. Among us these might be called articles. Thus whenever Paul wants to designate the law of Moses, he customarily places an article before it; but when he wants natural law to be understood, he designates "law" without the article.<sup>15</sup>

<sup>&</sup>lt;sup>14</sup> Winger, By What Law? 32.

<sup>&</sup>lt;sup>15</sup> Origen, *Comm. Rom.* 3.7. Stanley E. Porter (*The Letter to the Romans: A Linguistic and Literary Commentary* [NTM 37; Sheffield: Sheffield Phoenix, 2015], 77) explains, "Some equate each use of this noun [i.e. νόμος] in some way with the Jewish law (the Torah), while others equate uses with the article [ο νόμος] with the Jewish law and those without the article with some other kind of law."

Dunn evaluates Origen's claims by noting, "The consensus is that no firm rule can be established on the basis of the article's presence or absence. Context is a surer guide."<sup>16</sup> One of the implications that might be drawn from Dunn's claim, though likely not intended by him, is that the article's presence or absence has no impact on the meaning of the head term,  $v \delta \mu o \varsigma$ . Porter rightly notes, though, that "this is not necessarily a misunderstanding of the article, except when interpreters state that the article indicates definiteness."<sup>17</sup> He goes on to explain,

Paul's usage of the language of law is definitely much broader and more flexible than this. He uses the term often translated as "law" according to ancient Greek usage, in which "law" indicates any kind of precept, and hence can refer to either rules or principles or standards, real though unarticulated laws such as the laws of nature, or specific laws such as the laws of the Romans or Jews. All of these uses are found in Paul's usage in Romans, although it is not always easy to determine which sense is operative in a narrow cotext. The larger cotext, rather than simply the immediate cotext, must be examined in order to make any determination.<sup>18</sup>

Though the meaning of the article has been unclear and often unaddressed in discussions of  $\nu \delta \mu o \varsigma$ ,<sup>19</sup> Porter's comments hint at an even deeper, though related problem: the meaning of the lexeme itself is unclear. A fundamental problem in the conversation about  $\nu \delta \mu o \varsigma$ , as previously mentioned, is the typical absence of modern linguistic principles. Porter outlines some of the difficulties engendered by this non-engagement with modern linguistics, indicating that further linguistic treatment of  $\nu \delta \mu o \varsigma$  is still needed. He says, "Most of the discussion seems to assume— or at least assume for the sake of discussion—that when Paul uses the Greek word translated 'law' ( $\nu \delta \mu o \varsigma$ ) he means the Old Testament law, unless otherwise indicated. This is, I believe, a

<sup>&</sup>lt;sup>16</sup> Dunn, *Theology of Paul*, 132–33.

<sup>&</sup>lt;sup>17</sup> Porter, *Letter to the Romans*, 77.

<sup>&</sup>lt;sup>18</sup> Porter, *Letter to the Romans*, 77.

<sup>&</sup>lt;sup>19</sup> I will address the meaning of the article below.

mistake in several regards."<sup>20</sup> The issues raised by Porter are as follows: (1) we cannot assume that  $v\delta\mu\rho\varsigma$  always refers to the Old Testament law; (2) doing so operates on the assumption that Paul only ever refers to one extralinguistic reality by the word  $v\delta\mu\rho\varsigma$ , despite the fact that the context and cotext is not uniform in every case—in fact, I would add to this second point the remark that it is not only a single contextually derived sense for  $v\delta\mu\rho\varsigma$  that is being allowed to dominate the data, but it is actually often a single translation equivalent in English, the word *law*, which is allowed to operate as if it were an exact equivalent for the Greek term  $v\delta\mu\rho\varsigma$ ;<sup>21</sup> (3) the assumption that Paul is referring to Old Testament law, or that he is even denoting a legal command or system at all, must be proved, not simply assumed from the outset; (4) there has been a misunderstanding of the significance of  $v\delta\mu\rho\varsigma$  with the article, once again dominated by the simplistic translation equivalent, *"the* law."

The problem in this case is that interpreters may assume, like Origen, that  $\delta v \delta \mu o \varsigma$  or "the law" is Paul's way of signifying that the referent of  $v \delta \mu o \varsigma$  is Old Testament law. This view simply does not accord with the function of the Greek article. Peters's monograph, *The Greek Article*, outlines precisely how  $\delta$ -items in Hellenistic Greek do not perform the same function as the definite article in English.<sup>22</sup> According to his account, the article serves as a device for construing the head term it modifies as more concrete rather than more abstract. Therefore, the issue of reference is not solved by looking at Paul's use of the Greek article. As Peters argues:

<sup>&</sup>lt;sup>20</sup> Stanley E. Porter, *The Apostle Paul: His Life, Thought, and Letters* (Grand Rapids: Eerdmans, 2016), 119–
20.

<sup>&</sup>lt;sup>21</sup> For more discussion on the conflation of modern statutory law with ancient perspectives on "law," see Joshua Berman, "The History of Legal Theory and the Study of Biblical Law," *CBQ* 76 (2014): 19–39.

<sup>&</sup>lt;sup>22</sup> Ronald D. Peters, *The Greek Article: A Functional Grammar of O-Items in the Greek New Testament with Special Emphasis on the Greek Article* (Linguistic Biblical Studies 9; Leiden: Brill, 2014).

- Nouns are not automatically substantives.
- The article functions more like a relative pronoun; both parts of speech perform the same semantic function. They concretize the things they modify—the article modifying word groups, and the relative pronoun operating on the clause level.<sup>23</sup>
- A relative pronoun or article signals that the author is providing the relevant information needed to identify the referent of the modified word.

According to Peters, then, we can infer that  $v \delta \mu o \varsigma$ , as other nouns, is construed as a substantive when it is modified by the article or relative pronoun.<sup>24</sup> As a result, regardless of what  $v \delta \mu o \varsigma$  in a given passage is referring to, its construal of that reference is correspondingly abstract or concrete, depending on the author's goals at any given time.

Contrasted with the view that the article determines the reference of  $\nu \delta \mu$ oς, others have

argued the opposite, that "Paul when he speaks of the law, alike when he uses the article or

does not use it, always has in mind the whole legal code [of the Old Testament]."<sup>25</sup> However,

this perspective falls into the same error of drawing too broad of a generalization to account for

the term's reference. In this case, the reference is simply established at the outset, and the

presence or absence of the article is not thought to play any meaning-making role in the

language.

The most important study to consider in this discussion, however, is Winger's. Winger explains that the question, "What does Paul mean by 'law,' νόμος?" is typically answered in one

<sup>&</sup>lt;sup>23</sup> Peters thus identifies a single, unifying function for the article. Until his work, the general view has been that "The variations in the usage of the Greek article are too complex to allow sweeping generalizations about its significance" (Winger, *By What Law*? 45).

<sup>&</sup>lt;sup>24</sup> Contrast this view with Daniel B. Wallace, *The Basics of New Testament Syntax: An Intermediate Greek Grammar* (Grand Rapids: Zondervan, 2000), 94. His more traditional perspective is that the article is derived from the demonstrative pronoun, and thus, "the article is able to turn just about any part of speech into a noun and, therefore, a concept." This traditional view, as Peters points out, does not account for most of the article's uses—with words that are already nouns.

<sup>&</sup>lt;sup>25</sup> Albert Schweitzer, *Paul and His Interpreters: A Critical History* (trans. W. Montgomery; London: Adam and Charles Black, 1912), 44. Schweitzer attributes this view to Edward Grafe, *Die paulinische Lehre vom Gesetz nach den vier Hauptbriefen* (Tübingen: Mohr, 1884).

of two ways. First, there is the position that Paul usually or always means the Mosaic law, Old Testament, or the entirety of Israel's sacred tradition. Secondly, there is the position that Paul is speaking of law in general, which, Winger points out, leads to the Lutheran idea that Christians are not simply free of the Mosaic law, but free from law, or as Luther himself says, "free of *all laws* and subject to *nothing*, internally or externally."<sup>26</sup> Winger points out that neither of these typical positions can account for more puzzling instances such as  $v \delta \mu a \rho \tau i a \varsigma$  (law of sin) in Rom 7:25. Whatever it refers to, the  $v \delta \mu a \rho \tau i a \varsigma$  is unlikely to refer to the Mosaic law or to law in general. However, both of these answers point to a further problem, claims Winger: the lack of distinction between lexical meaning and reference. Winger claims that reference is not inherent in a term but supplied by context.<sup>27</sup>

This simple distinction serves to clear up much confusion. By framing the issue in this way, Winger has introduced one of the integral distinctions of modern linguistics, the difference between system and instance.<sup>28</sup> The heart of the distinction lies in what we mean by language. Do we mean to refer, on the one hand, to a specific text, a specific utterance, or an individual's way of speaking—an idiolect—or do we mean to refer, on the other hand, to a language system, the shared set of meaningful signs and generally meaningful ways of doing things with those signs? The former "language" regards the specific, the instance, whereas the latter regards the generalization, the system. This distinction, though prominent in Ferdinand de

<sup>&</sup>lt;sup>26</sup> See Luther's Works, 26.134, cited in Winger, *By What Law?* 2.

<sup>&</sup>lt;sup>27</sup> Winger, By What Law? 8.

<sup>&</sup>lt;sup>28</sup> This distinction is closely related to Saussure's *langue* and *parole* distinction (though not in exact correspondence). The seminal work is Ferdinand de Saussure, *Course in General Linguistics* (ed. Charles Bally, Albert Sechehaye, and Albert Riedlinger; trans. Roy Harris; Open Court Classics; La Salle, IL: Open Court, 1986). See esp. 14–15, where *langue* and system are to some extent mutually defining; cf. Wallis Reid, "Columbia School and Saussure's Langue," in Joseph Davis, Radmila J. Gorup, and Nancy Stern (eds.), *Studies in Functional Linguistics* (Studies in Functional and Structural Linguistics 57; Amsterdam: Benjamins, 2006), 17–39; John Lyons, *Introduction to Theoretical Linguistics* (Cambridge: Cambridge University Press, 1968), 51–52.

Saussure's work—the so-called father of modern linguistics—can be traced back to American Philosopher Charles S. Peirce's distinction between type and token.<sup>29</sup> Hutton explains this distinction by analogy to music.<sup>30</sup> We can describe a particular piece, say Mozart's *Requiem*, as a type, and individual performances of it as tokens of that type. This distinction involves the process of abstraction, explains Hutton, and so there is no necessary relation between token and type, only that a type is abstracted from the various tokens.<sup>31</sup> In terms of Greek, we could say that  $v \phi \mu o \varsigma$ ,  $v \phi \mu o \upsilon$ ,  $v \phi \mu o \upsilon$ , etc. are all tokens of the type,  $v \phi \mu o \varsigma$ . What we call a lemma, or dictionary form, is in fact just such an abstraction.<sup>32</sup> However, even a form like  $v \phi \mu o \upsilon$  is a type of every instance of  $v \phi \mu o \upsilon$  that you could find in a text.

Now, returning to Winger's distinction between lexical meaning and reference, we can see the significance. Lexical meaning, on Winger's description, is a property of types, but reference is a property of tokens. When it comes to the question of what Paul meant by  $v \delta \mu o \varsigma$ , the relevant tokens are all of Paul's uses of the lemma  $v \delta \mu o \varsigma$ . The type, in turn, is the lemma itself. The lemma  $v \delta \mu o \varsigma$ , then, means something, but its lexical meaning is not the same as the extralinguistic things it can be used to refer to. The view that  $v \delta \mu o \varsigma$  usually means the Mosaic law, then, would appear to be confusing lexical meaning and reference—unless, of course, one could demonstrate that the lemma  $v \delta \mu o \varsigma$  always refers to the Mosaic law, even by different

<sup>&</sup>lt;sup>29</sup> Of course, the type/token distinction can in some sense be derived from much older sources, as it pervades the philosophies of, for example, Plato and Aristotle. For discussion, see Christopher Hutton, *Abstraction and Instance: The Type-Token Relation in Linguistic Theory* (Language and Communication Library 11; Oxford: Pergamon, 1990), 8–30.

<sup>&</sup>lt;sup>30</sup> Hutton, *Abstraction and Instance*, 62.

<sup>&</sup>lt;sup>31</sup> While Saussure (*Course in General Linguistics*, 15) maintains that "linguistic signs, although essentially psychological, are not abstractions," he also explains that a sound pattern, and thus its associated value, can be represented by distinguishing the "sum of a limited number of elements or speech sounds" which make up that sign, though the value must be identified by other means.

<sup>&</sup>lt;sup>32</sup> Gregory T. Stump, *Inflectional Paradigms: Content and Form at the Syntax-Morphology Interface* (Cambridge Studies in Linguistics 149; Cambridge: Cambridge University Press, 2016), 58.

authors. If it were possible to demonstrate such a thing, the debate over Paul's meaning would be non-existent. As it is, the fact that Paul's many interpreters have debated the relative merits of numerous ways of understanding Paul's use of  $v \delta \mu o \varsigma$  points to the fact that  $v \delta \mu o \varsigma$  does not always mean or refer to the Mosaic law. Another point to consider is the fact that Paul is not an isolated user of Greek. The term  $v \delta \mu o \varsigma$ , rather, had a shared lexical meaning that made it a useful sign within the linguistic system of Hellenistic Greek. To demonstrate that  $v \delta \mu o \varsigma$  always has the lexical meaning *the Mosaic law*, one would have to demonstrate that such is the case within the linguistic system as a whole, not just in Paul's writings. If it is not possible to prove such a point—and I will take it for granted that this point is false—then we will need to take a different approach to the lexical meaning of  $v \delta \mu o \varsigma$  in Paul. We will need to establish a meaning for  $v \delta \mu o \varsigma$  that can explain all of its uses in Paul's writings.

Winger has outlined seven "syntagmatic patterns" for Paul's use of  $v\delta\mu\rho\varsigma$ , which together "constitute a single meaning of  $v\delta\mu\rho\varsigma$  as it is used in Paul's letters."<sup>33</sup> The seven patterns amount to the following "components" of meaning for  $v\delta\mu\rho\varsigma$ : (1)  $v\delta\mu\rho\varsigma$  is verbal; (2) is a standard for judgement; (3) is a guide to conduct; (4) exerts control; (5) is tied to a particular people; (6) has a source; and (7) is something people put themselves in subjection to.<sup>34</sup> However, I would question whether these are "components" of the meaning of  $v\delta\mu\rho\varsigma$ , as Winger claims; rather, they should be understood as uses of  $v\delta\mu\rho\varsigma$ . For example, say we aimed to define the English word *human* in this fashion. Would we begin to list the things that humans can do, and the things that can be done to humans, and the types of control certain humans can exert, etc., and then assume that all of these different activities and/or states comprise the

<sup>&</sup>lt;sup>33</sup> Winger, By What Law? 40.

<sup>&</sup>lt;sup>34</sup> Winger, By What Law? 35–36.

components of lexical meaning that go into the English word? I find this approach somewhat convoluted, and fail to see how such an approach can be extended to analysis of other Greek terms. Furthermore, these syntagmatic patterns are limited to Paul's use of the term—a limitation Winger points out. This limitation indicates that even though Winger wishes to analyze the meaning of the *lexeme*, he is only analyzing the results of Paul's use of the lexeme, rather than attempting to answer what it is about this term that made it a meaningful choice for accomplishing the communicative goals Paul had in mind.

For my purposes, Winger introduces two interesting aspects of discussion: the relation between  $v \delta \mu o_{0}$  and other interchangeable terms, and the place of  $v \delta \mu o_{0}$  in multiple semantic fields. According to Winger, "Ordinarily a term is located within a single semantic field, but it may be useful to think of  $\nu \delta \mu \omega \zeta$  as occupying the intersection of several overlapping fields, suggested by the various aspects of its meaning."<sup>35</sup> He points out that the semantic field of  $v \delta \mu o \varsigma$  likely overlaps with several domains: the domain of communication, particularly written, overlapping with words like  $\gamma \rho \alpha \phi \eta$  and  $\gamma \rho \alpha \mu \mu \alpha$ ; and also the domain of command, overlapping with διχαίωμα, ἐντολή, ἔθος, and παράδοσις. As well, νόμος has an important relationship with πνεῦμα. These two types of relations, both lexical and semantic, will be analyzed below using vector space analysis, which provides a new dimension of data analysis that was unavailable to Winger. One issue implied in Winger's analysis is that  $v\delta\mu\sigma$  has meaning in two ways: it has substance in that it contributes meaningfully to an utterance by supplying some aspect of meaning that another word would not necessarily contribute; and it also has value, a paradigmatic meaning that sets it in contrast to other words that could have been used instead

<sup>&</sup>lt;sup>35</sup> Winger, By What Law? 40.

of  $\nu \delta \mu \rho \varsigma$ . One way to think about this distinction is through the analogy of relationships: the substance contributed by a term is like the individual persons that participate in a relationship, and the value is like the connection between the persons that hold them together as distinct but related entities.<sup>36</sup>

In light of the previous discussion, I will now turn to a linguistic methodology that provides us with the tools for defining the substance of  $v \delta \mu o \varsigma$ . I will supplement a definition of the substance of  $v \delta \mu o \varsigma$  in the section after that by examining the value of  $v \delta \mu o \varsigma$ . Both aspects, substance and value, will contribute to a nuanced view of  $v \delta \mu o \varsigma'$ s meaning.

## L1 Monosemy and Vector Space Analysis

In this section I will attempt to outline the substantive content and paradigmatic value of  $v \delta \mu o \varsigma$ as a monosemous signifier within the language system of Hellenistic Greek. In order to analyze this meaning, I will use a method that is a combination of two linguistic theories, Columbia School analysis and the monosemy of Charles Ruhl. In terms of this paper, the three key assumptions I will be working with in my analysis are as follows. First, the lexical meaning of  $v \delta \mu o \varsigma$  is the reason Paul used  $v \delta \mu o \varsigma$  and not any other word. Second, the lexical meaning of  $v \delta \mu o \varsigma$ , which consists of both substance and value, should be abstracted from all of its uses in

<sup>&</sup>lt;sup>36</sup> For a general outline of the view I am adopting in this paper, see the following Columbia School volumes: Ellen Contini-Morava and Barbara S. Goldberg, eds., *Meaning as Explanation: Advances in Linguistic Sign Theory* (Trends in Linguistics: Studies and Monographs 84; Berlin: Mouton de Gruyter, 1995); Alan Huffman, *The Categories of Grammar: French Lui and Le* (Studies in Language Companion Series 30; Amsterdam: Benjamins, 1997); Wallis Reid, Ricardo Otheguy, and Nancy Stern, eds., *Signal, Meaning, and Message: Perspectives on Sign-Based Linguistics* (Studies in Functional and Structural Linguistics 48; Amsterdam: Benjamins, 2002). To clarify a potential point of misunderstanding, I am not advocating an atomic view of meaning, where the meaning of a "sentence" can be decomposed into its atomic parts. Rather, I am advocating a view of linguistic signs as sparse but meaningful units that offer hints in conjunction with context as to the meaning of the utterance as a whole.

context—in other words, the goal is a comprehensive account of the term.<sup>37</sup> Third, context and cotext are necessary to narrow the lexical meaning of the type,  $v \delta \mu o \varsigma$ , to a more specific reference. These three assumptions are based on the recognition that complexity marks content and context specifies meaning. Winger notes that in most discussions of  $v \delta \mu o \varsigma$ , "The question of meaning is rarely separated from the question of reference."<sup>38</sup> I will attempt the opposite of this general tendency in my approach, in order to provide a linguistic baseline for  $v \delta \mu o \varsigma$ . In this way, an interpreter can begin with the baseline notion of  $v \delta \mu o \varsigma$ , and whenever modulations of this baseline are suspected, explicit cotextual or contextual features must be identified.

As mentioned, I am adopting the view that the meaning of  $v \delta \mu o \varsigma$  can be modelled as having two parts, substance and value. The substance of a linguistic unit can be thought of as the contribution that unit makes to the full meaning of an utterance. The value of a linguistic unit can instead be thought of as that unit's place both within the larger system of the language as a whole, and more narrowly within its paradigm of choices. That is, the choice of  $v \delta \mu o \varsigma$ reflects the choice not to use other, semantically related terms. When it comes to  $v \delta \mu o \varsigma'$ 's value, however, identifying what other terms might be considered interchangeable with it is a difficult task. What is needed is an analysis of the terms that it collocates with, as well as other terms that collocate with the collocates of  $v \delta \mu o \varsigma$ . Since we do not know in advance exactly what these terms are, the task would seem to be non-trivial in terms of labour. If one needed to manually identify words that occur in similar contexts to  $v \delta \mu o \varsigma$ , then the methodology would be next to

<sup>&</sup>lt;sup>37</sup> See Charles Ruhl, "Data, Comprehensiveness, Monosemy," in Wallis Reid, Ricardo Otheguy, and Nancy Stern (eds.), *Signal, Meaning, and Message: Perspectives on Sign-Based Linguistics* (Studies in Functional and Structural Linguistics 48; Amsterdam: Benjamins, 2002), 171–89.

<sup>&</sup>lt;sup>38</sup> Winger, By What Law?, 28.

useless, and we would be better off using purely qualitative analysis as we have been doing all along. Fortunately, advances in corpus linguistics and computational linguistics can be leveraged in order to make this process much more feasible. In order to identify terms that could be part of  $v \delta \mu \sigma \varsigma$ 's paradigm, then, I will use vector space analysis in order to examine an archive of 1.7M words. Vector spaces allow the direct comparison of words in a corpus based on distribution. Further explanation about these two measures is in order.

#### L1 Corpus Linguistics and Vector Space Analysis

Vector space analysis is a method of analysis that examines collocations on a higher order than simply direct comparison using human judgement. It should be carefully noted that computational methods like vector spaces are not a viable replacement for human judgement, but they nevertheless offer new insights into the data that we have at our disposal and so allow us to make subjective, qualitative judgements about empirical measurements. The core idea behind vector spaces is that linguistic units such as words can be directly compared with one another in terms of distribution. Traditionally, the semantic content of a word cannot be measured, much less directly compared with the semantic content of another word. Winger's own attempt to do this involves comparing the "components" of meaning for  $v \phi \mu o \varsigma$  with the alleged components of related words. The problem with Winger's approach is that the existence of these components cannot be verified, much less empirically measured. However, vector spaces attempt to do just this, on the basis of both the distributional hypothesis and the geometric metaphor of meaning.

While he cannot be credited with the creation or initial implementation of vector space modeling, Magnus Sahlgren takes the crucial step beyond merely applying a distributional semantic approach to large corpora and actually attempts to outline the theoretical and motivational substructure of vector spaces. In order to do this, Sahlgren develops a computational model of meaning. This model has two crucial and distinguishing features: the distributional methodology as its discovery procedure, and the geometric metaphor of meaning as its representational basis.

### L2 The Distributional Hypothesis and Corpus Linguistics

Vector space modeling is a descriptive and corpus-based approach to language, and thus the model assumes and tests the hypothesis that meaning is a matter of distribution. This is not a new view; in 1954 Zellig Harris claimed, "difference of meaning correlates with difference of distribution."<sup>39</sup> That is, the meaning of linguistic forms is fundamentally entwined with cotext and context, because both intralinguistic (cotextual) and extralinguistic (contextual) factors are indispensable in the production of meaning. However, a vector space model can only measure cotext, not context, and thus this model generates semantic (or intralinguistic) values for linguistic forms based solely upon their distribution within texts.

Obviously, by only taking texts into consideration, the object of analysis is not "meaning" in all of its extralinguistic fullness, but rather language as an autonomous system. Vector space modeling, therefore, is useful when answering questions about the object language itself within a structuralist conception of language. Because vector space models do not consider, for example, questions of extralinguistic reference, Sahlgren cautions, "It cannot be stressed enough that the vector space model is a computational model of meaning, and *not* 

<sup>&</sup>lt;sup>39</sup> Zellig S. Harris, "Distributional Structure," Word 10 (1954): 156.

a psychologically realistic model of human semantic processing. The only information utilized by the vector space model is linguistic context [i.e. cotext]."<sup>40</sup>

Vector space modeling, therefore, is intralinguistic in its orientation; it is agnostic about the context in which language appears, strictly computing the values of linguistic items in relation to one another. The computed intralinguistic meaning, then, can be modeled syntagmatically or paradigmatically by specifying either syntagmatic or paradigmatic contexts in the generation of context vectors (i.e. values).

Corpora are important in descriptive linguistics for the very fact that the existence of data in a corpus implies their acceptability to, or functionality for native speakers.<sup>41</sup> This fact is rendered even more important for analysis of an epigraphic language like Hellenistic Greek: corpus linguistics provides our primary source for insight into the language itself. Our introspective opinions about the way Greek functioned might approximate the intuitions of the language users in some rare instances, but the only way we could even test such intuitions is in relation to corpus data. As Labov explains, "Good practice in the more advanced sciences distrusts most of all the memory and impressions of the investigator himself. As valuable and insightful as the theorist's intuitions may be, no one can know the extent to which his desire to make things come out right will influence his judgment."<sup>42</sup> In fact, he claims,

we all share a common failing as linguists: we try too hard to prove ourselves right. In this strenuous effort we inevitably overlook the errors concealed in our assumptions,

<sup>&</sup>lt;sup>40</sup> Magnus Sahlgren, "The Word-Space Model: Using Distributional Analysis to Represent Syntagmatic and Paradigmatic Relations between Words in High-Dimensional Vector Spaces" (Ph.D. thesis, Stockholm University, 2006), 134–35.

<sup>&</sup>lt;sup>41</sup> John Beavers and Peter Sells, "Constructing and Supporting a Linguistic Analysis," in Robert J. Podesva and Devyani Sharma (eds.), *Research Methods in Linguistics* (Cambridge: Cambridge University Press, 2013), 397–421, here 398–99.

<sup>&</sup>lt;sup>42</sup> William Labov, "Sociolinguistics," in William Orr Dingwall (ed.), *A Survey of Linguistic Science* (2nd ed.; Stamford, CT: Greylock, 1978), 339–75, here 351.

built into our methods, and institutionalized in our formal apparatus . . . A permanent concern with methodology means living with the deep suspicion that we have made a mistake at some crucial point in the investigation.<sup>43</sup>

Labov therefore argues that historical linguistics must have "referenced and available data" that can be examined by colleagues, and must be based on exhaustive use of these data.<sup>44</sup> Corpus data, therefore, ought to play a crucial role in analysis of epigraphic languages such as Hellenistic Greek. This is all the more important, given that our only available data is the extant data that resides in corpora. "The basic fact that influences the methods of historical linguistics," Labov asserts, "is that they have no control over the selection of their data. Their texts are the results of historical accidents, and the art of the linguist is to make the best use of this fragmentary material."<sup>45</sup>

Given that corpus linguistics is such an indispensable tool, I would argue that a distributional approach to analyzing the language of corpora is a natural fit. Grief and Newman claim that use of corpus linguistics is essentially an exercise in distributional analysis, saying, "Corpus linguistics is inherently a distributional discipline," because, they explain, corpora only offer data regarding the following distributions of linguistic items: frequency and dispersion, collocations, and indexing (i.e. concordance tools).<sup>46</sup> However, as vector space models demonstrate, corpus linguistics is not limited to these relatively simple tools. Rather, it is possible to construct models that rely almost completely on corpus data,<sup>47</sup> but nevertheless utilize complex computational processing. Therefore, the distributional hypothesis, as modeled

<sup>46</sup> Stefan Th. Grief and John Newman, "Creating and Using Corpora," in Robert J. Podesva and Devyani Sharma (eds.), *Research Methods in Linguistics* (Cambridge: Cambridge University Press, 2013), 257–87, here 274.

<sup>&</sup>lt;sup>43</sup> Labov, "Sociolinguistics," 368.

<sup>&</sup>lt;sup>44</sup> Labov, "Sociolinguistics," 340.

<sup>&</sup>lt;sup>45</sup> Labov, "Sociolinguistics," 340.

<sup>&</sup>lt;sup>47</sup> Of course, the parameters set for the vectorization of the corpus reflect both the aims and subjective judgements of the linguist. And furthermore, the data cannot interpret itself.

in vector spaces, is a useful discovery procedure for linguistic analysis of Hellenistic Greek because of its descriptive and corpus-based methodology. For example, in the model I used to run the tests below, the top 5 hits (i.e. distributionally similar terms) for  $\delta_1\delta_2$ 

ἑαββί σώζω ἐπιτιμάω φαρισαῖος ψυχήν<sup>48</sup>

Thus, with no input other than a corpus of texts, the model inferred semantic similarity from only distributional information.

The key to word-space modeling is the amount of information that is taken into account. As Schütze explains, "Lexical cooccurrence can be easily measured. However, for a vocabulary of 50,000 words, there are 2,500,000,000 possible cooccurrence counts to keep track of."<sup>49</sup> An important issue in the implementation of vector space models of corpus data, then, is the question of how the data is to be represented or described in a meaningful way, one which allows an interpreter to infer useful generalizations. The answer, according to Sahlgren, is the geometric metaphor of meaning.

<sup>&</sup>lt;sup>48</sup> This final term illustrates the need for further refinement of the lemmatizing software I am using to preprocess my texts. Better and larger corpora, as well as further advances in annotating capabilities will only improve the use of computational analysis for Hellenistic Greek.

<sup>&</sup>lt;sup>49</sup> Hinrich Schütze, "Word Space," in *Advances in Neural Information Processing Systems 5* (Burlington, MA: Morgan Kaufmann, 1993), 895–902, here 896.

#### L2 Geometric Representation of Meaning

The geometric metaphor for representing meaning, like the distributional hypothesis, is not unique to Sahlgren's work.<sup>50</sup> Rather, this representation is operative in semantic domain or field theories.<sup>51</sup> According to the description of Hinrich Schütze, "Vector similarity is the only information present in Word Space: *semantically related words are close, unrelated words are distant*."<sup>52</sup> In other words, vector spaces capture semantic relatedness and represent it as spatial proximity. Again, Schütze explains, "Proximity of vectors in the space (measured by the normalized correlation coefficient) corresponds to semantic similarity."<sup>53</sup>

This representation of similarity as proximity raises two questions, however. How is similarity/proximity computed? And what kind of meaning is represented—what is semantic relatedness? I will answer the second question below, but in answer to the first question, I have already discussed the motivating principle of vector space analysis, the distributional hypothesis. On this view, words that occur in similar contexts have similar meaning.

Typically, both collocations and colligations are identified using a key word in context, concordance search. However, the basic key word in context analysis, while useful for some tasks, cannot tell us about words or constructions that, though they may be similar, never actually occur together in the data. A salient example is the word  $\xi\theta_{0\varsigma}$ , which though never

<sup>&</sup>lt;sup>50</sup> For a discussion of semantic field and frame theories, see Adrienne Lehrer and Eva Feder Kittay, eds., *Frames, Fields, and Contrasts: New Essays in Semantic and Lexical Organization* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1992), 3–5.

<sup>&</sup>lt;sup>51</sup> Geometric representations of semantic meaning are not limited to computational approaches. For example, Lehrer and Kittay (*Frames, Fields, and Contrasts,* 1) claim, "Semantic relations and field or frame structures seem to be operative in the mental lexicon."

<sup>&</sup>lt;sup>52</sup> Schütze, "Word Space," 896.

<sup>&</sup>lt;sup>53</sup> Schütze, "Word Space," 896.

occurring in Paul's writings, is likely a closely related word to  $v\delta\mu oc.^{54}$  Vector space analysis, as will be shown below, allows a direct comparison of these terms as they appear in the corpus, because the words do co-occur in the vector space (or "word space," elsewhere "distributional semantic matrix").<sup>55</sup> One can think of a vector space model as a large network of connections, which is a matrix of extremely high dimensionality (essentially a table with thousands of columns and hundreds of thousands of rows). By turning words into "context vectors," they can be meaningfully compared to one another. *Meaningful* comparison is the key that unlocks the vector space model. According to Sahlgren,

The principal feature of the geometric metaphor of meaning is not that meanings can be represented as locations in a (semantic) space, but rather that similarity between (the meaning of) words can be expressed in spatial terms, as proximity in (high-dimensional) space.<sup>56</sup>

A matrix of extremely high dimensionality, in other words, is incomprehensible for the interpreter. By contrast, rendering words as context vectors allows them to be understood as coordinates on a graph (although more properly as vectors, which have magnitude, or coordinates, as well as direction on the graph), thus enabling their coordinates to be compared.<sup>57</sup>

Vector spaces model semantic similarity. What, though, is semantic similarity (or relatedness of meaning)? On the basis of the structuralist conception of meaning, where meaning is a set of differential values (or *valeurs*, according to Saussure), meaning can be either

<sup>&</sup>lt;sup>54</sup> Winger, By What Law? 42.

<sup>&</sup>lt;sup>55</sup> Dirk Geeraerts, *Theories of Lexical Semantics* (Oxford: Oxford University Press, 2010), 174–76. For a general introduction to the word space approach (specifically latent semantic analysis) see Thomas K. Landauer, Peter W. Foltz, and Darrell Laham, "Introduction to Latent Semantic Analysis," *Discourse Processes* 25 (1998): 259–84.

<sup>&</sup>lt;sup>56</sup> Sahlgren, "Word-Space Model," 33.

<sup>&</sup>lt;sup>57</sup> Geeraerts, *Theories of Lexical Semantics*, 174–76.

paradigmatic or syntagmatic. In other words, meaning is not simply an attribute of individual words or linguistic classes; meaning is a product of those words existing within an autonomous system. "Structuralists argued," notes Storjohann, "that language is a unique autonomous self-contained and relational system, with clearly recognisable stable structures exposing inherent semantic properties of lexical items that can be decomposed and described."<sup>58</sup> While vector spaces do not decompose lexical units as Storjohann describes, they do measure similarity as if the lexical units in a language were part of a self-referring system. As described above, Winger's study could only provide a minimal analysis of  $v \delta \mu \sigma s'$  s paradigm, focusing instead on mostly syntagmatic information. While this is an important aspect of the analysis, it can now be supplemented with further empirical data on the relationships between terms and semantic domains in Hellenistic Greek.

In summary, the distributional hypothesis of meaning claims that similarity of context indicates similarity of meaning. Using a word space, similarity of context can be computed and measured empirically. Sahlgren's dissertation makes the case that word spaces model structural meaning, which is either syntagmatic or paradigmatic. Which one precisely depends on what kind of context is measured for the words. When a smaller window of context (around ten words spanning the central word) is used to establish the differential value (in a computational and only indirectly semiotic sense) of a word or lexeme, the strongest similarities in the resulting data will indicate relatively more paradigmatic and less syntagmatic relations. A larger context window (around a fifty-word context) instead tends to indicate more

<sup>&</sup>lt;sup>58</sup> Petra Storjohann, "Sense Relations," in Nick Riemer, Routledge (ed.), *The Routledge Handbook of Semantics* (Handbooks in Linguistics; London: Routledge, 2016), 248–65, here 249.

syntagmatic than paradigmatic relationships.<sup>59</sup> In my study I use a context window of five—that is, co-occurrences are counted five words to the left and five words to the right of every single word in the corpus. I ignore unique word forms, as these often comprise errors or noise in the data. Better corpus annotation tools, which are being developed, will allow for more sensitive analysis of less and less common words.<sup>61</sup>

A note about data is in order as well. The 1.7M word corpus I use in this analysis of  $v \delta \mu o \varsigma$ is composed of Hellenistic Greek works, that is, works composed between roughly 300 BCE–300 CE. While it is based on the corpus arranged by O'Donnell, the longer historical works have not been pruned in length.<sup>62</sup> While a balanced corpus is critical for statistical measures, the need for as much data as possible in the creation of vector space models outweighs this priority, since I will only be measuring the collocation environments of words. A balanced corpus of at least 20M words would be ideal, but at present this is unavailable.

<sup>&</sup>lt;sup>59</sup> See discussion in Sahlgren, "Word-Space Model," 132. Note the distinction between context "region" and context "window"—the latter is the focus in this description.

<sup>&</sup>lt;sup>61</sup> To annotate my corpus, I used MarMot+Lemming, which is a predictive approach to lemmatization and morphological tagging (Thomas Müller and Hinrich Schuetze, "Robust Morphological Tagging with Word Representations," in *Proceedings of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* [Denver, co: Association for Computational Linguistics, 2015], 526–36; Thomas Müller, Helmut Schmid, and Hinrich Schütze, "Efficient Higher-Order CRFs for Morphological Tagging," in *Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing* [Seattle, WA: Association for Computational Linguistics, 2013], 322–32). For a rule-based approach to identifying inflected forms with their lexemes (harder to create but more thorough), see the ongoing work of James Tauber (https://github.com/jtauber/greek-inflexion).

<sup>&</sup>lt;sup>62</sup> See, for example, Francis G. H. Pang, *Revisiting Aspect and Aktionsart: A Corpus Approach to Koine Greek Event Typology* (Linguistic Biblical Studies 14; Leiden: Brill, 2016); Matthew Brook O'Donnell, *Corpus Linguistics and the Greek of the New Testament* (NTM 6; Sheffield: Sheffield Phoenix, 2005); Matthew Brook O'Donnell, "Designing and Compiling a Register-Balanced Corpus of Hellenistic Greek for the Purpose of Linguistic Description and Investigation," in Stanley E. Porter (ed.), Diglossia and Other Topics in New Testament Linguistics (JSNTSup 193; Sheffield: Sheffield Academic, 2000), 255–97. A variation on O'Donnell's corpus is also used in Gregory P. Fewster, *Creation Language in Romans 8: A Study in Monosemy* (Linguistic Biblical Studies 8; Leiden: Brill, 2013).

L1 Analysis and Results: The Substance of Νόμος

In order to assess the meaning of  $\nu \delta \mu o \varsigma$ , I will first consider its semantic substance, primarily

through considering its description in BDAG, which offers the following three senses with sub-

headings:63

- 1) "a procedure or practice that has taken hold, a custom, rule, principle, norm."
  - a) this practice could be a generic custom or norm, or
  - b) it could be a law or "'system' of conduct that constitutes an unwritten tradition."
- 2) "constitutional or statutory legal system, law."
  - a) this system could be generic, or
  - b) "the law that Moses received from God and is the standard according to which membership in the people of Israel is determined."
    - Though the sense is a legal and, apparently, codified system that, under this subheading, serves to delimit ethnic boundaries, τὸ ἔργον τοῦ νόμου nevertheless "=the moral product that the Mosaic code requires"
    - ii)  $\nu \delta \mu \omega \varsigma$  can have the same sense when used with or without the article.
    - iii) Note: the gloss *custom* is offered for one reference here
- 3) "a collection of holy writings precious to God's people, *sacred ordinance*."
  - a) "in the strict sense *the law*=the Pentateuch, the work of Moses the lawgiver . . . Also simply δ νόμος."
  - b) "In a wider sense=Holy Scripture gener[ally], on the principle that the most authoritative part gives its name to the whole."

The organization of these senses is not entirely transparent. For example, one can see that 1b

could be understood as denoting a set of norms, rather than a single norm as its superordinate

definition implies, and thus 1b might be better located under the next heading, 2, as a system

of norms.<sup>64</sup> However, in summary we can notice that BDAG offers three senses: a non-legal

norm, a legal system, and scripture. Here is a simplified list of these senses:

1) procedure or practice that has taken hold

<sup>&</sup>lt;sup>63</sup> Text not enclosed in quotation marks is mine.

<sup>&</sup>lt;sup>64</sup> The distinction between senses 1 and 2 in BDAG can be taken in two ways, non-legal vs. legal or singular norm vs. system of multiple norms. I have chosen to allow the latter to determine the distinction, however, as the sub-types of 2 focus mostly on which system of norms is within view. The inclusion of the gloss *custom* for one of the sub-types of 2 undermines, in my opinion, the interpretation where non-legal vs. legal is the most general distinction between 1 and 2. Perhaps *custom* can have a quasi-legal interpretation in English in some cases, and thus the alternative interpretation of the basic distinction between 1 and 2 remains a possibility.

- a) generic practice, i.e. a custom or norm
- b) an unwritten tradition or system of conduct
- 2) constitutional or statutory legal system
  - a) generic legal system
  - b) the law of Moses
- 3) collection of venerated writings
  - a) in a narrow sense, the Pentateuch
  - b) in a wider sense, the Hebrew scriptures

From a monosemic perspective, the variation of meaning in BDAG's entry displays a logical progression that implies a basic, central meaning that integrates the various senses. First,  $v \delta \mu o \varsigma$  can have the sense of a custom or norm; second,  $v \delta \mu o \varsigma$  can have the sense of a systematic set of norms—a coordinated set of customs that apparently resembles the legal frameworks we are familiar with in the modern world;<sup>65</sup> and third,  $v \delta \mu o \varsigma$  can have the sense of the authoritative records that document the system. Even though there are therefore three meanings in BDAG, 1)  $v \delta \mu o \varsigma$  as *custom*, 2)  $v \delta \mu o \varsigma$  as *legal system*, and 3)  $v \delta \mu o \varsigma$  as *scripture*, a single monosemic value can be hypothesized for these three meanings.

When viewing these three meanings listed in BDAG together, it becomes apparent that  $v \delta \mu o \varsigma$  as *custom*, a procedure or practice that has taken hold, appears to be at the centre of the semantic meaning of  $v \delta \mu o \varsigma$ . The rationale behind this claim is as follows: apart from  $v \delta \mu o \varsigma$ 's having the sense of *custom* or *norm*, the other two meanings lose their coherence. By contrast, if  $v \delta \mu o \varsigma$  as *system* and  $v \delta \mu o \varsigma$  as *scripture* are taken as pragmatic modulations of  $v \delta \mu o \varsigma$  as *custom*, the entire entry gains a coherence that, in a limited sense, explains why a single linguistic token and its morphological paradigm, i.e.  $v \delta \mu o \varsigma$ ,  $v \delta \mu o v$ ,  $v \delta \mu \phi \phi$ , etc., are used to describe the type of

<sup>&</sup>lt;sup>65</sup> As mentioned before, it may be anachronistic to describe ancient systems of norms generally, or the Mosaic law in particular, as legal systems.

different real-world entities that  $v \delta \mu o \varsigma$  generally refers to. In short, positing a semantic core to  $v \delta \mu o \varsigma$  explains the variation we see in the different senses BDAG describes.

More precisely, we can posit some pragmatic factors or conditions that serve as explanatory hypotheses regarding the different meanings we see in actual usage of  $v \delta \mu o \varsigma$ .<sup>66</sup> These pragmatic factors explain *why*  $v \delta \mu o \varsigma$ , which basically means *custom*, can come to mean something like *scripture*. Two particular conditions can explain these general senses, although more might be posited to account for the further variation evident in the subheadings BDAG includes.

First,  $v \delta \mu o \varsigma$  as *custom* can be pragmatically modulated to mean  $v \delta \mu o \varsigma$  as *system* by means of pragmatic generalization. Thus,  $v \delta \mu o \varsigma$  as *custom* is related to  $v \delta \mu o \varsigma$  as *system* as token is to type, or instance is to system;  $v \delta \mu o \varsigma$  as *system* is a generalization of a set of multiple  $v \delta \mu o \varsigma$ as *customs*. By analogy, one might refer to an instance of a car by saying, "I commute in my car," where *car* has the sense of a single, particular car. The same term can be generalized, however to mean not an instance but a type of transportation, by saying, "I commute by car." In the latter example no particular car is in view, but rather a generalization. Notice, however, that the generalization is effected by the cotext of *car*—the words around *car* change, but *car* itself does not. This change is thus best described as a pragmatic inference on the basis of context regarding the term *car*.

Second, νόμος as *system*, which is a generalization of νόμος as *custom*, can in turn be pragmatically specified to have the third sense, νόμος as *scripture*. Another analogous example will serve to illustrate both conditions together. Take the English term *law* for example: one

<sup>&</sup>lt;sup>66</sup> This process of positing pragmatic conditions is described by Charles Ruhl, *On Monosemy: A Study in Linguistic Semantics* (SUNY Series in Linguistics; New York: SUNY Press, 1989) as a "monosemic bias."

might refer to an instance of a modern law by saying, "There is a law about that." The term law can be generalized, as in the example above, by asking instead, "Aspiring lawyers must pass the bar examination to practice law." In the first example, a specific law is in view—whether it exists or not—and in the second, no particular law is in view. This pragmatically generalized sense of *law*, however, can subsequently be pragmatically specified by saying, "The Royal Canadian Mounted Police catch those who have broken the law." In this final example, no particular custom or law is in view, but a generalized system of law is also not in view—the RCMP do not catch people who have broken Israelite law, but rather Canadian law. Thus, a particular system of law is in view, a pragmatically specified instance of the generalized type. While these examples do not establish the semantics of  $v \delta \mu o \varsigma$ , they do illustrate the operative pragmatic conditions that modulate the semantic meaning of  $\nu \delta \mu \sigma \varsigma$  as custom. Here, it is critical to bear in mind that even when  $v \delta \mu o \varsigma$  is pragmatically modulated, the modulations rely on  $v \delta \mu o \varsigma$  as custom. Put differently, it is specifically νόμος as custom that is modulated, and the other senses would be incomprehensible apart from this monosemic lexical substance.

Thus, I would offer the initial hypothesis that, given only the meanings supplied by BDAG —which outlines the types of variation that  $v \delta \mu o \varsigma$  undergoes— $v \delta \mu o \varsigma$  as *custom* is a justifiable description of the semantic meaning of  $v \delta \mu o \varsigma$ , bearing in mind that " $v \delta \mu o \varsigma$  as *custom*" here designates something like "a procedure or practice that has taken hold," or a "customary norm." Bear in mind as well that  $v \delta \mu o \varsigma$  as *custom* does not communicate very much on its own. We cannot tell simply from the presence of the word  $v \delta \mu o \varsigma$  whether an author is referring to something legal or non-legal, real or unreal, Jewish or Hellenistic, etc. L1 Analysis and Results: The Value of Νόμος

Next, the key contribution of this essay is the assessment of νόμος's paradigmatic value, both its relation to similar lexemes, as well as the semantic domains it is found in and is related to. Winger points out that, as mentioned above, the semantic field of νόμος probably overlaps with other domains: communication, especially written, and also the domain of command. Winger also claims that νόμος overlaps with words like γραφή, γράμμα, διχαίωμα, ἐντολή, ἔθος, and  $\pi$ αράδοσις, and is probably related in some way to  $\pi$ νεῦμα.

In order to test the degree of these connections, I have generated several

comparisons.<sup>67</sup> Complete lists of the words and semantic domains that have been analyzed are

given in the Appendix. First, I have attempted to measure the degree of similarity between

νόμος and the following semantic domains, drawn from Louw and Nida's lexicon:<sup>68</sup>

33.333–33.342 "Law, Regulation, Ordinance" 33.343–33.346 "Command, Order" 33.69–33.108 "Speak, Talk" 33.35–33.68 "Written Language" 41.25–41.28 "Custom, Tradition" 33.11–33.25; "Discourse Types" 33.224–33.250 "Teach."

I will refer to these domains in the figure below by the first word of Louw and Nida's description of them (i.e. "Law," "Command," etc.). I have also included a dummy domain ("Control"), consisting of mostly country and region names, as well as a few relatively unrelated nominals, in order to provide a contrasting example.  $N\delta\mu\sigma\varsigma$  occurs in the domains "Law" and "Written

<sup>&</sup>lt;sup>67</sup> These comparisons use the Word2Vec collection of algorithms created by Google and implemented in Python through GemSim. See, respectively, Tomas Mikolov et al., "Efficient Estimation of Word Representations in Vector Space," (paper presented at the International Conference on Learning Representations, Scottsdale, Az, 2013), 1–12; Radim Řehůřek and Petr Sojka, "Software Framework for Topic Modelling with Large Corpora," in Proceedings of the LREC 2010 Workshop on New Challenges for NLP Frameworks (Valletta, Malta: ELRA, 2010), 45–50.

<sup>&</sup>lt;sup>68</sup> Johannes P. Louw and Eugene A. Nida, *Greek-English Lexicon of the New Testament Based on Semantic Domains* (2 vols; New York: United Bible Society, 1988).

Language," so it has been omitted from those domains for the search. The results are a set of values between zero and one, where one indicates identity and zero indicates low similarity. Because these values show generally high similarity, due to problems of over- or under-fitting the model (low frequency and high frequency words tend to respond differently to parameters such as the total number of dimensions in the context vectors), I have taken the mean similarity and graphed the divergence from the mean. The results are plotted in Figure 1. The solid line represents the mean, and the dashed line represents one standard deviation above and below the mean.<sup>69</sup>



Figure 1: Deviation from the mean

<sup>&</sup>lt;sup>69</sup> However, the standard deviation in this case is of limited use due to the disturbance caused by the Control domain.

As can be seen in the graph, there are three domains in particular, Custom, Written, and Law, that score highly. In other words,  $v \delta \mu \omega \varsigma$  is very similar to those three domains, to more or less equal degrees. These results, at least, appear to validate BDAG's three general senses for  $v \delta \mu \omega \varsigma$ as *custom, system*, and *scripture*. In a surprising result, of the domains analyzed,  $v \delta \mu \omega \varsigma$ corresponds least with Command, but this finding supports my hypothesis that the sense of  $v \delta \mu \omega \varsigma$  as *custom* is the monosemic value that ties together its other uses, because the central idea of  $v \delta \mu \omega \varsigma$  is a socially established norm, not an authoritative pronouncement. While a common understanding of Torah is that it is a set of injunctions handed down by God—and I do not attempt to dispute this view—it is interesting that the Greek term chosen as a translation of the Hebrew term *Torah* is  $v \delta \mu \omega \varsigma$ , a term that has more to do with the social and societal function of Torah where and when it was translated, than with its divine origins. To clarify, these results do not imply that  $v \delta \mu \omega \varsigma$  is unrelated to the semantic domain Command, only that  $v \delta \mu \omega \varsigma$  is more closely related to the domains Custom, Law, and Written.

My second test attempts to compare and then visually plot νόμος in relation to similar terms suggested by Winger. Table 1 presents the values for each term in comparison with νόμος.

νόμος	1.0
γραφή	0.758
γράμμα	0.791
δικαίωμα	0.746
έντολή	0.677
ἐντολή ἔθος	0.677 0.947
ἐντολή ἔθος παράδοσις	<b>0.677</b> <b>0.947</b> 0.800

Table 1: Νόμος and similar terms

In the table, the terms on the left are compared to  $v \delta \mu o \varsigma$ . Thus,  $v \delta \mu o \varsigma$  compared with itself scores 1.0, a perfect match. As indicated, the most semantically similar term to  $v \delta \mu o \varsigma$ —on a distributional model of semantics—is  $\xi 0 \circ \varsigma$ . The most semantically dissimilar of the set, by contrast, is  $\delta v \tau o \lambda \eta$ . These findings are unexpected, but they accord well with my hypothesis that the monosemic lexical meaning of  $v \delta \mu o \varsigma$  is "customary norm." At the very least, the idea that  $\delta v \tau o \lambda \eta$  and  $v \delta \mu o \varsigma$  are synonymous is questioned by these findings. Figure 2 presents these findings as a graph.



#### Figure 2: Deviation from the mean for similar terms

In this diagram, each bar represents a word. As the graph makes evident, the semantic similarity being mapped is not simply synonymy, but paradigmatic interchangeability. That is, even though  $\pi\nu\epsilon\tilde{\upsilon}\mu\alpha$  is not a synonym of  $\nu\delta\mu\sigma\varsigma$ , it nevertheless is highly interchangeable with it, which is to say that  $\nu\delta\mu\sigma\varsigma$  and  $\pi\nu\epsilon\tilde{\upsilon}\mu\alpha$  show up in contexts that are roughly 91% similar. This would indicate that perhaps the semantic domains suggested by Louw and Nida do not correspond with the paradigmatic categories operative in the Greek language—almost certainly not. Vector space analysis, I would point out, provides a way to pursue further research into semantic domain theory for epigraphic languages like Hellenistic Greek.

In Figure 3, I offer an example of an alternative way of outlining semantic domains. This diagram maps the results of every term's relationship with every other term. All of the features of the diagram are weighted—stronger relationships are assigned thicker and darker lines, and words with stronger similarities are more darkly coloured. The result is a two-dimensional mapping of the high-dimensional context vectors for the terms identified by Winger as relating to  $v \phi \mu o \varsigma$ . What must be clearly communicated regarding this map is that the position of each node reflects the similarity measure between all of the terms it is related to, but the mapping of the terms is *relative* to the terms included in the "paradigm." Thus, using a different set of terms will result in a different mapping—though the connections will have the same weight and thus pull together with equal strength. Given this important caveat, relative to the terms included in this query, the picture sketched up until this point seems to be substantiated.



Figure 3: Semantic map of νόμος

# L1 Conclusion

In conclusion, it is appropriate to ask whether, in light of the analysis in this paper,  $v \delta \mu o \varsigma$  ought to be consistently glossed as "law." Through engaging with BDAG's definitions for  $v \delta \mu o \varsigma$ , I have explained why the monosemic substance for  $v \delta \mu o \varsigma$  is probably better understood as denoting a customary—that is, socially established and maintained—norm. Through further analyzing the distributional semantics of  $v \delta \mu o \varsigma$  in relation to both related semantic domains and related terms, I have offered an account of the monosemic value of  $v \delta \mu o \varsigma$  as well. Both sides of this analysis assume that every time the lexeme  $v \delta \mu o \varsigma$  appears in the corpus, we should assume that it contributes the same substance, and that this monosemic substance explains its value, or why it was chosen from among other paradigmatic alternatives. In light of this analysis, translation alternatives such as "custom" or "tradition" might be more appropriate in some cases where the term is used. At the very least, this study would indicate that the choice to gloss  $v \phi \mu o \varsigma$  as "law" must be substantiated on the basis of cotext and context, not merely assumed to be the correct or basic meaning of the term, unless it turns out that "law" in English itself can be assigned an abstracted sense of customary norm. To reiterate, this paper assumes that to understand Paul's use of  $v \phi \mu o \varsigma$  we ought to begin with a baseline understanding of the term as a part of the language system. I have argued, therefore, that the baseline semantic contribution of  $v \phi \mu o \varsigma$  is *customary norm*, and without contextual clues signalling a legal context of situation, it is probably not best to consistently gloss  $v \phi \mu o \varsigma$  as "law," but rather "custom."

# L1 Appendix

The following lists of lexemes constitute the content of the semantic domains used for comparison to the lexeme  $v \delta \mu o \varsigma$ . These domains are outlined by Louw and Nida in their lexicon (and can be found under the numerical reference heading each list) and as such are subject to the same limitations as Louw and Nida's work more generally. Such a comparison serves best as a further examination of the conclusions put forth by Winger, and future developments in the areas of computational linguistics as well as semantic domain theory will serve to improve further on the approach undertaken here. I have excluded phrases included as "idioms" by Louw and Nida. Terms with an asterisk beside them have also been omitted from the search, either because they occurred less than two times in the corpus, or else because the lemmatizer incorrectly classified them.

**33.333–33.342 'Law, Regulation, Ordinance':** νόμος, δόγμα, δικαίωμα, κανών\*, ἔννομος, νομικός\*, νομοθετέω, νομοθεσία, νομοθέτης

**33.343—33.346 'Command, Order':** κελεύω, διαστέλλομαι, κέλευσμα, τάσσω, συντάσσω, προστάσσω, ἐπιτάσσω, διατάσσω, ἐπιταγή\*, διαταγή\*, διάταγμα, ἀπαγγέλλω, παραγγέλλω, παραγγέλλω, παραγγελία, ἐντόλομαι, ἐντολή, ἔνταλμα\*, ἐπιτιμάω\*, δόγμα

**33.69–33.108 'Speak, Talk':** λέγω, λαλέω, προσλαλέω\*, προσαγωγή\*, ἐκλαλέω\*, στόμα, γλῶσσα, φθέγγομαι, ἀποφθέγγομαι, φωνέω\*, ἀναφωνέω\*, προσφωνέω\*, φωνή, βοάω\*, ἀναβοάω, βοή\*, κράζω, ἀνακράζω\*, κραυγάζω, κραυγή, ῥήγνυμι, προλέγω, πολυλογία, βατταλογέω\*, παρρησιάζομαι, ὀνομάζω, ῥητῶς, ἄρρητος, ἀλάλητος\*, λόγια, ῥῆμα, λόγος, λαλιά, φωνή, φθόγγος, κωφός, μογιλάλος\*, ἐνεός\*

**33.224–33.250 'Teach':** διδάσκω, διδαχή, διδασκαλία, κατηχέω\*, παιδεύω, διδακτός\*, θεοδίδακτος\*, σωφρονίζω, ὑποτίθεμαι\*, νουθετέω\*, νουθεσία, διδακτικός\*, ὀρθοτομέω\*, ἑτεροδιδασκαλέω\*, παραδίδωμι, παραλαμβάνω, παράδοσις, παρτοπαράδοτος\*, αἵρεσις, ἐντρέφω\*, διδάσκαλος, παιδευτής, καθηγητής\*, ἑαββί, ραββουνι, νομοδιδάσκαλος, καλοδιδάσκαλος\*, ψευδοδιδάσκαλος\*

**33.11–33.25 'Discourse Types':** διήγησις, κεφάλαιον, μῦθος, παροιμία, παραβολή, παρατίθημι\*, ἀλληγορέω\*, γένεσις, ἀσπάζομαι, ἀσπασμός\*, ἀπασπάζομαι\*, χαίρω, ἀποτάσσομαι, ῥώννυμαι\*, ποιητής

**33.35–33.68 'Written Language':** γράμμα, ἰῶτα\*, κεραία, βίβλος, χειρόγραφον\*, ἀποστάσιον\*, ἀπογράφω, ἀπογραφή\*, καταλέγω, ἐλλογέω\*, τίτλος, σφραγίς, ἐπιστολή, ἐπιστέλλω, λόγος, βίβλος, γραφή, γραφαί, νόμος\*, ἀνομος, Μωϋσῆς, προφῆται, γράφω, ἐγγράφω\*, καταγράφω, γραπτός\*, ἐπιγράφω, προγράφω, ἐντυπόω\*, ἀναγινώσκω

**41.25–41.28 'Custom, Tradition':** ἔθος, ἦθος, ἐθίζω, εἴωθα, παρατηρέω\*, νομίζομαι, [πατρικός]