Center for New Testament Restoration

Project Description

By Alan Bunning
Rough Draft
October 28, 2018

Copyright © 2018 by Alan Bunning. All rights reserved. This rough draft is intended for review purposes only. Distribution without the author’s prior consent is prohibited.

This publication is intended to be a work in progress and will continue to be updated as additional work is accomplished. Unlike other “Christian” organizations who are trying to make a profit off the Body of Christ, this book is made freely available for download on the Internet. The author does not make any profit from the sale of this publication or any of the other CNTR materials. For those who wish to contribute to this work, donations should be made out to:

Alan Bunning
Center for New Testament Restoration
1600 Hemlock Road
Lafayette, Indiana, 47906
Table of Contents

Table of Contents
Preface
1. Introduction
   1.1 Textual Corruption
      1.1.1 Translation Differences
   1.2 Textual Authority
      1.2.1 Preservation Theories
      1.2.2 Ecclesiastical Pronouncement
   1.3 Textual Criticism
      1.3.1 Unscientific Methodologies
      1.3.2 Subjective Storytelling
      1.3.3 Conjectural Emendation
      1.3.4 Questionable Results
   1.4 Scientific Textual Criticism
   1.5 Additional Challenges
      1.5.1 Incomplete Data
      1.5.2 Restricted Access
      1.5.3 Financial Barriers
      1.5.4 Biased Scholarship
      1.5.5 Educational Hurdles
   1.6 Textual Restoration

2. Witnesses
   2.1 Terminus Ad Quem
   2.2 Data Classes
   2.3 Identification
   2.4 Metadata

3. Transcriptions
   3.1 Graphemes
      3.1.1 Capitalization
      3.1.2 Diacritical Marks
      3.1.3 Punctuation Marks
      3.1.4 Special Characters
      3.1.5 Editorial Marks
   3.2 Character Condition
   3.3 Textual Accuracy

4. Textual Parsing
   4.1 Lexicology
      4.1.1 Words
      4.1.2 Lemmas
      4.1.3 Lexemes
      4.1.4 Enhanced Strong’s Numbers
   4.2 Morphology and Syntax
   4.3 English Glosses
   4.4 Capitalization
4.5 Versification

5. Data Analysis
   5.1 Collation Alignment
   5.2 Computer-Generated Texts
      5.2.1 Limitations
      5.2.2 Preliminary Results

Appendix – Database Design
Preface

I first learned Greek in 1991 at the Kensington Theological Academy under the tutelage of Dr. David R. Dilling, Th.D., Ph.D. I had heard about his Greek class from a coworker who said I could tag along. Dr. Dilling recalls that I pretty much just sat there unassumingly and said almost nothing. After completing the course, I eventually became aware of various debates over variant readings and different text-type theories. I naively thought it should be fairly simply to collect some of the modern Greek critical texts and compare them to see how they differed. To start with, I went to the Internet and downloaded a copy of Westcott and Hort. Just to be safe, I decided to download a second copy of it and to make sure they were the same. To my surprise they were different. So I downloaded yet another copy of Westcott and Hort, and it was different still. Indeed, I eventually obtained six different copies of Westcott and Hort and all of them were different! But which one of them was correct? To answer that question, I made a master list of all the differences between those texts and took a trip to the Taylor University library to examine an actual copy of Westcott and Hort. Again to my surprise, none of the texts obtained from the Internet were correct! So I painstaking went through over 1000 different verses to determine what the correct readings should be and finally created an accurate electronic copy of Westcott and Hort.\textsuperscript{3} Okay, but that was only one text.

I then proceeded to do the same thing with the 1550 Stephanus text, the 1894 Scrivener text, and the Nestle-Aland 27th text and again found that every one of those electronic texts contained errors and needed to be corrected through the exact same process. It was through that experience that I founded the Scientific Greek New Testament Interlinear (SGNTI) project in 2003 with the goal of providing accurate Greek texts in an interlinear fashion to enhance the study of the New Testament. But after I had finally created accurate copies of eight different Greek texts, I realized that I was no closer to knowing what the original text of the New Testament was than when I started. Those were merely modern critical texts created by men over a thousand years later, and of course, they all disagree with each other in thousands of places.

I realized that the only way to get an accurate picture of the Greek New Testament would be to obtain transcriptions of all the extant Greek manuscripts themselves and then compare them. With all of the seminaries and Bible societies working on this problem for hundreds of years, you might think that it would be relatively simple to obtain this data, right? Again, it was to my surprise to find that not only was the data unavailable,\textsuperscript{1,2} but worse, nobody really seemed to be working on this problem. Here I am constantly reminded of the analogy from the book of Haggai where the temple laid in ruins while everyone was occupied with their own houses (Hag 1:2-11). That began my introduction to the discombobulated world of textual criticism where I have observed so much misguided effort based on all manner of suspect theories with absolutely no scientific basis.\textsuperscript{3}

With that in mind, I knew that in order to tackle the problem properly, there could be no other course of action than to acquire the actual raw data by making transcriptions for all of the earliest manuscripts myself. This was obviously a major undertaking that would take over a decade to complete. But as William Carey once said, “I can plod.” As this process neared completion, I founded the Center for New Testament Restoration (CNTR) and created a new website in 2013 to display all the data in a collation.\textsuperscript{4} With the completion its first major milestone, the CNTR has released electronic transcriptions of almost every known extant Greek manuscript containing portions of the New Testament up to year 400 AD, which some had considered to be the “holy grail” of textual criticism. The CNTR database now contains over 1.5 million words featuring 193 early witnesses from extant manuscripts. How I wish that all of this information would have been available to me when I first started to learn Greek. This work will be used to create a scientifically determined Greek New Testament displayed in an interlinear fashion complete with morphological parsing\textsuperscript{4,2} and Enhanced Strong’s Numbering system.\textsuperscript{4,14}
I have now received many requests regarding my data because there are now many new opportunities for research that have never been possible before. Several organizations have expressed interest in receiving further enhancements to the data, but please be patient, for I have a family and a full-time job and I am working as fast as I can to continue this work. Obviously, I have stood on the shoulders of giants to reach this point, but I want to give glory to God who has given me perseverance for all that has been accomplished. This work is freely given as a gift to the Body of Christ, with nothing expected in return.

Alan Bunning
1. Introduction

Perhaps one of the first things you may be wondering from the title is, “What exactly about the New Testament needs to be restored?” Obviously, there are billions of copies of the New Testament offered in multiple versions and languages throughout the world, and it seems to be doing just fine, thank you! While occasionally there are debates about which version has the best translation, most any of them seem to be proficient enough to lead people into a saving knowledge of the Lord Jesus Christ. Yet, there are several significant differences between the various versions of the New Testament. For example, did you ever wonder about the footnotes in some Bibles that indicate a passage was not contained in the “most early reliable manuscripts”? Or when alternate readings are cited that are only contained in “some manuscripts”? Most do not realize that these footnotes really only represent the tip of the iceberg regarding textual variants in the New Testament. There are actually over 5,700 different Greek manuscripts1 which disagree with each other about 15% of the time. That doesn’t sound too bad until you consider that this represents over 20,000 word differences. Now before anyone becomes too unsettled, let it be stated that no major Christian doctrine is subverted by any of these differences. Indeed, most of the textual variants are minor and do not even make a translatable difference, and the remaining few result in little theological significance. But still it raises the question of why there are so many differences in the first place?

1.1 Textual Corruption

Most Christians begin with the position that the Bible is the inspired word of God and inerrant in the original autographs meaning that what the apostles originally wrote was without error. But that does not necessarily apply to the subsequent transcription, copying, and printing which may have introduced errors. The Chicago Statement on Biblical Inerrancy states:

“We affirm that inspiration, strictly speaking, applies only to the autographic text of Scripture, which in the providence of God can be ascertained from available manuscripts with great accuracy. We further affirm that copies and translations of Scripture are the Word of God to the extent that they faithfully represent the original.”2

C.S. Lewis gives the analogy that just as natural biological processes took over after the immaculate conception, and normal digestive processes took over after eating manna from heaven, so also “inspired books will suffer all the ordinary processes of textual corruption”.3 The original autographs of the New Testament no longer exist, and all of the texts we possess are either copies, or copies of copies made by fallible men, which indeed have led to many textual variations. There is no authoritative copy of the New Testament that can be identified as being handed down from the beginning. None of the early extant manuscripts we possess comes with a detailed explanation as to why it was copied, who copied it, or what it was copied from. External clues such as where a manuscript was found or how neatly the text was copied shed little light on how accurate the text might be. Comments from the church fathers do not describe any lineage of a pure text that can be traced, for they were fully aware that scribal errors had been introduced into their texts. Origen stated, “But it is a recognized fact that there is much diversity in our copies, whether by the carelessness of certain scribes, or by some culpable rashness in the correction of the text, or by some people making arbitrary additions or omissions in their corrections.”4 Jerome also commented, “...why not go back to the original Greek and correct the mistakes introduced by inaccurate translators, and the blundering alterations of confident but ignorant critics, and, further, all that has been
inserted or changed by copyists more asleep than awake?” Such alterations are readily evident in various manuscripts where the scribes tried to improve the authors’ grammar, harmonized passages from the gospels, added words of clarification, or performed their own attempts at textual criticism. And sometimes they simply made errors in copying the text!

1.1.1 Translation Differences

In spite of these variations, scholars today are confident that the original reading of every verse in the New Testament is contained among the Greek texts within our possession. But the problem is that it is often debatable as to which textual variants are the correct ones. Thus, at various times throughout our history various scholars have attempted to reconstruct the original autographs by choosing variant readings from a subset of the Greek manuscripts to produce an eclectic text through some form of textual criticism. Unfortunately, these New Testament texts reconstructed by the experts still disagree with each other about 11% of the time, representing over 15,000 word differences. Translators then have relied upon one of these eclectic texts to produce the major versions of the Bible such as the KJV, RSV, NASB, NIV, ESV, etc. Thus, when Christians today read their English Bibles, they have had to rely upon fallible men to complete several steps:

2. Select the correct variant readings to produce an eclectic text.
3. Parse the text into sentences since there were no spaces, punctuation, or capitalization.
4. Ascertain the meanings of the words of Koine Greek which is a dead language.
5. Translate the text into English.

Unfortunately, most of this process has been entirely obscured to the general public who possess little to no ability to evaluate their work. So did they do it right? How would you know? Notice that none of these compilers, editors, or translators ever claimed that their work was divinely inspired (including the editors of the 1611 KJV). Most people only consider step 5 when they select a particular version of the Bible. Is it a literal translation? Does it use modern English? Is it endorsed by their church leaders? But they are oblivious to steps 1-4 and merely rely upon the men who translated their Bibles. Those who want greater accuracy and comprehension may buy a Greek/English interlinear Bible which allows them to examine the Greek text in a more literal fashion. Coupled with reference books such as a lexicon, an interlinear can be a powerful tool even for those without any knowledge of Greek. This essentially opens up a whole new realm to the average Christian, because they are allowed to get closer to the Greek and scrutinize steps 3-4 for the first time. While this is a great improvement, most of the hotly contested issues reside all the way back at step 2, which is perhaps the most important step that remains completely obscured from most people. These problems have nothing to do with how the Greek text is translated, but rather which Greek text is translated. For example, consider the Lord’s Prayer contained in Luke 11:2-4:

“Our Father which art in heaven, Hallowed be thy name. Thy kingdom come. Thy will be done, as in heaven, so in earth. Give us day by day our daily bread. And forgive us our sins; for we also forgive every one that is indebted to us. And lead us not into temptation; but deliver us from evil.” (KJV)

Notice that the phrases in the bold font are missing from the NASB, NIV, ESV, and other modern versions of the Bible. Why is that? It is not because the translators did not translate properly, it is because they were translating from a Greek text that did not contain those phrases! The Greek text used to translate the KJV was radically different than the Greek text used to translate the NASB, NIV, and ESV.
So which Greek text has the correct readings? Obviously, Bible translations will vary from each other greatly if they are not even translating from the same underlying Greek text!

### 1.2 Textual Authority

One practical question that follows then is, “How can the Bible be authoritative with all of these differences in the Greek manuscripts?” It seems that new critical texts of the Greek New Testament are being released every few years now, and they do not agree with each other any more than they did before. Some have looked to the Nestle-Aland text as a standard, but they are now on their 28th edition, which differs from all their previous editions, with more revisions to come in the future. When are they ever going to get it right? Considering all of the misguided efforts done in the name of textual criticism, it is quite understandable that many have desired to identify a single Greek New Testament text that can be used as a definitive authoritative source. How else can the Church hold Christians accountable to follow the authority of a single standard, when there are so many divergent texts?

While such a goal may indeed be desirable, it should be pointed out that there are no significant variants for the vast majority on the New Testament, so there already is sufficient textual authority for any practical need. Most experts place the accuracy of the New Testament at over 99.5%. Most of the variants that exist are so minor that they are not even translatable, and the rest have little theological significance – nothing that is not already covered elsewhere in Scripture. Consequently, “not one fundamental doctrine of the Christian faith rests on a disputed reading.” Again, the current efforts of Biblical scholarship have been good enough that people are being born again into a saving knowledge of Jesus Christ despite all of the different variants in the Greek texts. So is it possible that the spirit of the meaning is more important than nitpicking over the individual words used to convey that meaning? Jesus said, “You search the Scriptures because you think that by them you possess eternal life, but it is these that testify about me.” (John 6:39). Many think that the Bible is the Word of God, but the Bible actually teaches that Jesus is the Word of God (John 1:1,14, Heb. 4:12-13, Rev. 19:11-13). Christianity can survive without the Bible as it exists in many people groups that have never had a Bible, but it cannot survive without Jesus who is the Word of God!

Notice that Jesus wrote no books during his ministry, nor is there any evidence that he made dictations to ensure that they got his words right. What was he thinking? Was this by design? The New Testament authors were not necessarily concerned about letter-perfect accuracy either as evident by the way that they quoted the Old Testament; and neither was the early Church considering the later forms of *nomina sacra* that were introduced and the number of spelling and grammatical variations that were transmitted. Perhaps the Holy Spirit is leading the Church into all truth (John 16:13), but not necessarily in the manner that some scholars would expect, particular those who have never personally met the Word of God. Don’t get me wrong, the accuracy of the Bible is extremely important, but all the textual criticism in the world will not enable you to experience a better personal relationship with Jesus Christ than has already been available. Clearly, there is no definitive authoritative New Testament text that is universally recognized throughout all of Christiandom today. But is there a possibility that a single authoritative Greek New Testament text could be established in the Church?

### 1.2.1 Preservation Theories

Scripture contains several verses regarding the preservation of God’s Word such as, “The grass withers and the flowers fall, but the word of our God stands forever” (Isa. 40:8; see also Psa. 126:7, Matt. 5:18, 24:35). Such verses have traditionally been interpreted to mean that God's Word is firmly established *in Heaven* (Psa. 119:89) and will be accomplished in spite of the schemes of men (Isa. 55:11). But some splinter groups
have interpreted them to mean that God must have supernaturally preserved a letter-perfect Bible on earth which has been carefully handed down from generation to generation through the Church. They point out that the Westminster Confession of Faith affirms the Bible has been “kept pure in all ages” by God’s providence, assuming that “pure” here means “letter-perfect.” Certainly, the New Testament has been generally preserved though thousands of copies we have in our possession, but with all of the variations between manuscripts, it is incumbent for these splinter groups to identify which manuscript contains the exact letter-perfect Word of God. Most of these groups simply start with the assumption that what ever Bible they have been using must be correct and then look for evidence after the fact to try to justify why their text is right and all of the other texts are wrong. But here they are faced with a number of insurmountable problems.

First of all, these verses in the Bible do not guarantee that all people from every generation will possess a letter-perfect text, or if they do possess it, that they will even know what it is. For example, the Bible itself records that the Book of the Law had been lost for several years before the reign of Josiah (2Kings 22:8-13, 23:1-3). Indeed, these various splinter groups cannot agree on exactly which text is the correct one. Is it the Textus Receptus text or the Byzantine Majority text (or perhaps even the King James Bible)? How could anyone know for certain? There is nothing in the Bible that specifies which of these texts is without error. Should it be the earliest text? Or the text used by the majority? Or rather would it be some minority text preserved by God’s remnant (Gen. 45:7, Hag. 1:14, Zech. 8:11-12)? If someone became a Christian apart from the dictates of one of these groups, how could they independently determine which Bible is the true word of God? What biblical criteria could another Christian use to know which version is correct? Is there any reason to accept one text over another beyond the splinter group’s authoritarian argument, “Believe our text is the true inspired word of God because we said so”?

Secondly, there is no evidence that any of those texts were passed down in a letter-perfect form to anyone. As previously stated, there is no definitive copy of the New Testament that can be identified as being handed down from the beginning. The church fathers were not aware of any pure text that had been passed down, but instead pointed out that errors had been introduced into their texts. Amazingly, out of all of the thousands of extant manuscripts we possess, “no two of them are exactly alike in their wording. They all differ.” Thus, there is no letter-perfect textual tradition between even two manuscripts! Accordingly, none of these splinter groups can offer any textual evidence of a letter-perfect lineage of textual transmission for their definitive text. The Textus Receptus and Byzantine Majority texts disagree with each other in thousands of places, and there are different Textus Receptus versions and different Byzantine Majority versions which all differ from each other. Consequently, every Textus Receptus text and Byzantine Majority text used by these splinter groups was created through the process of textual criticism. Ironically, this would mean that no one who lived before these modern critical texts were created ever had a letter-perfect text that was preserved for them!

Thirdly, perhaps the biggest fallacy is the idea that only “Byzantine” manuscripts were preserved through the Church. The authoritarian argument of the splinter groups claims that all the texts used by the Church followed the “Byzantine” tradition which just happens to agree with their predetermined text. But what about the ecclesiastical authority of the churches that followed the “Alexandrian” tradition, and can factually demonstrate an even earlier text? Were the Christians in Egypt and Caesarea not also part of the Church with similar lineages of apostolic authority, and were the Scriptures not also supernaturally preserved for them? The facts of the matter is, virtually all of the manuscripts we have were created and used by the Church, and thus carried the authority of the Word of God to the Christians that read and used them. Each one of those manuscripts was someone’s Bible! Certainly, mistakes were made in copying as there are many textual variations, but as far as we know, most manuscripts represented a sincere effort to transmit the words of God accurately without evil conspiratorial motives.

One variation of this argument claims we should only consider texts that are found within certain “apostolic” churches with the belief that whatever text they are still using today must have been handed down by apostolic authority. But there is no trail of evidence with a lineage of extant manuscripts to verify that claim, so you are supposed to simply believe them because they said so. On the contrary, all
of the texts of those apostolic churches disagree with each other, and thus textual alterations were accepted among them without objection. As a case in point, the 1904 Antoniades Patriarchal Greek Text used by the Greek Orthodox churches contains the Johannine Comma (1John 5:7-8) which didn’t appear in Greek until the 13th century, was absent from all of the writings of the Greek church fathers, and was not in any of the early Ethiopian, Aramaic, Syriac, Slavic, Armenian, Georgian, or Arabic textual traditions. Using their own argument, shouldn’t the Greek Orthodox churches have vehemently objected when someone later tried to insert these new words into their Bible? It is irrelevant if some churches later agreed to adopt the same text after the fact, otherwise they should adopt the Nestle-Aland critical text which was agreed upon by all of the major Bible Societies as well as the Roman Catholic church! This preservation theory is another example of historical revisionism which would be no different than going to nearest the Baptist church and seeing what version of the Bible they use, and then simply choosing to believe that it had been passed down to them like that in a letter-perfect lineage from the beginning.

If we were to really accept these splinter group’s premises, much to their chagrin, a better argument can be made that Codex Vaticanus would represent the true letter-perfect Word of God. It is an early manuscript that was handed down from generation to generation for 1700 years, and we know that for a fact that is was preserved because we still have it! Codex Vaticanus is believed to have been carefully produced under apostolic authority in a scriptorium in Caesarea using the most elaborate scribal hand and attention to detail. It could be argued that its special preservation from antiquity by the apostolic Church in Rome in the Vatican Library must speak to its incredible value, whereas no comparable “Byzantine” manuscript was preserved in that manner. And its text agrees very closely with manuscript P75 which is an even earlier text carefully produced under apostolic authority at the Saint Pachomius Monastery located in a different geographical region. It could also be argued that Codex Vaticanus still carries the most ecclesiastical authority because its text still serves as the influential basis for the most popular Bible translations used by the Church today. Why aren’t the authoritarian traditionalist splinter groups interested in this ecclesiastical tradition?

Aside from this, if God truly meant to supernaturally preserve the text, they why didn’t He simply preserve the original autographs? Or why didn’t He supernaturally prevent others from introducing variants? And why aren’t there any extant manuscripts from different generations that are exact copies of each other? The Textus Receptus and Byzantine Majority texts are still valid traditions that are worthy of study, but they should be evaluated on their own merits based on the evidence, not on faulty arguments based on unsubstantiated conspiracy theories.

1.2.2 Ecclesiastical Pronouncement

Since a single pure textual lineage cannot be found through the Church, why doesn’t the Church today simply make a pronouncement and declare which text is authoritative? That is, the authority of the Church which recognized the books to include in the New Testament in the first place, is the same Church which could recognize which variant readings in those books are valid. For example, some have suggested that whether or not the long ending of Mark (Mark 16:9-20) or the pericope adulterae (John 7:52-8:11) were part of the original autographs, they could still be regarded as Scripture because the Church has historically accepted the message of these passages. After all, the Church of the living God is “the pillar and foundation of truth” (1Tim. 3:15). This approach has nothing to do with weighing internal and external evidence to determine the most “likely” reading, but merely to receive revelation from God through the Holy Spirit as to what is the correct reading. The same Holy Spirit which inspired the Scriptures (2Tim. 3:16), is the same Holy Spirit that could just as easily specify the correct readings of those Scriptures today.

While such a notion would be possible in theory, it is apparently no longer possible in practice, as it would depend largely on two presumptions. The first presumption is that the Church at large could be assembled again to address this issue. Perhaps someone could imagine a modern ecumcnical gathering
like the Council of Nicea, but it would never be universally accepted today. Some denominations now consider other denominations to be apostate and therefore no longer part of the Church today. Thus, they would only want those who represent the “true” Church (i.e. those who agree with their theology) to consider these issues and translate their Bibles appropriately. Of course, this is what some groups think that they have been doing. (And if you are a true Christian you should automatically recognize that their group is the right one! ☯️) Making subjective textual criticism decisions based on what someone thinks the text ought to read or which readings make the most theological sense might seem like a more “spiritual” approach, but it has resolved nothing because not everyone agrees on the same theology. Thus, no definitive textual authority can be obtained from a divided Body of Christ.

The second presumption is that the Holy Spirit would disclose to the Church which variant readings are the correct ones. If the Holy Spirit has been leading Christian scholars up to now, then why are so many of them coming to different conclusions? And if the Holy Spirit has already led some scholar to divinely select the correct variant readings, the rest of Christiandom has certainly not recognized it, which then again leads us back to the first presumption. The Church as a whole would need to authorize such a process, or the resulting text would still lack the desired ecclesiastical authority. As a result, an ecclesiastical solution will remain elusive in practice because there is no agreement over the subjective determinations of what is the true Church and who is being led by the Holy Spirit. Obviously, various groups can make such authoritative pronouncements concerning the text of their choice, and some of them have, but that will not carry the desired authority from the united testimony of the Church.

1.3 Textual Criticism

Even if a single authoritative text cannot be established through an ecclesiastical approach, Christians would still want to know the wording of the Scriptures as precisely as possible, because they contain the objective and authoritative written words inspired by God. Thus, the normal way to go about answering questions about the original autographs usually involves the use of textual criticism. The field of textual criticism is not unique to the Bible, but is a generic science that can used to determine the original form of any text (apparently any text other than the New Testament that is ☯️). For example, consider what would happen if the Declaration of Independence were lost for two thousand years. How would you go about reconstructing the original text? Most people would simply compare a list of the earliest known copies and then recreate the original – any mistake that appeared in one copy would presumably be obvious when compared with all of the other copies. Simple enough? This approach would indeed lend itself quite nicely to the New Testament, which has numerous early textual sources from multiple geographical regions, and as far as we know, most scribes were not intentionally trying to alter the text. And yet this straight-forward approach has rarely been applied in the field of New Testament textual criticism! Instead, it has been replaced by all manner of unscientific methodologies, subjective storytelling, and conjectural emendation, resulting in a wide range of questionable results.

1.3.1 Unscientific Methodologies

Over the centuries, the field of New Testament textual criticism has had little to do with science, but instead has degenerated into a complicated mess of absurd theories and misguided efforts. Some textual critics seem to have trouble even understanding what a scientific approach would be as they certainly have not been applying it when it comes to the New Testament. It should be noted that most of what are being called “textual criticism theories” are not scientific theories, nor are they really even theories per se. Instead, most of them are unscientific methodologies that have been used to reconstruct the New
Testament. If we were to let the New Testament scholars today apply their modern textual criticism
theories to reconstruct the Declaration of Independence, we would have to endure countless absurdities:

- Only examine seven copies of the text that just happened to be at your local library which are all over
nine centuries old. When you realize that all of them are missing the Bill of Rights, back-translate the
missing portion from an old copy written in French. (1516 Erasmus Textus Receptus)
- Depend almost exclusively on only two early copies and then whenever they disagree, use the
version contained in a modern history book to break the tie. (1885 Westcott and Hort)
- Claim that all of the copies are wrong except one that was translated 15 centuries later into Chinese,
and then declare that the only correct versions of the Declaration of Independence must be translated
from this Chinese version. (King James Only)
- Claim that there were so many other similar documents like the Declaration of Independence that we
cannot be sure what the “original text” was. (E. Jay Epp)
- Form a committee to look at the manuscript evidence and then vote on what they think the text of the
Declaration of Independence should be. Then copyright the text and restrict its access so that others
cannot use it freely. (Nestle-Aland 28th)
- Claim that there was a vast government conspiracy to intentionally alter the Declaration of
Independence so that now it is impossible to reconstruct the original. (Bart D. Ehrman)
- Ignore most of the earliest copies and instead focus on a later text that started appearing in some of
the history books over four centuries later. (Byzantine Majority)
- Choose four modern history books and wherever they agree must be right, but whenever they
disagree, simply make a choice from among them. (2010 Society of Biblical Literature)

And that is just the tip of the iceberg. No rational person would accept any of those methodologies for
reconstruction the Declaration of Independence, and yet this is what has been done with the text of the
New Testament in the name of textual criticism! Notice that what is missing in all of these oversimplified
caricatures is that none of them seem to properly weigh the earliest evidence to determine what the
original text was in a scientific manner. Why is that? Well, in the case of the New Testament, it was
partly because none of them had sufficient access to all of the earliest materials. Notice that there has
never been an exhaustive apparatus that shows all of the variant readings among all the earliest
manuscripts. But that is not the only reason...

1.3.2 Subjective Storytelling

Much of textual criticism has degenerated into nothing more than the art of subjective storytelling,
which again has nothing to do with science. Some expert picks a particular passage, examines some of
the evidence, and then makes up a story to explain what may have occurred. But the problem is that
another expert does the exact same thing and makes up a different story that results in a different
conclusion. This is likened to the analogy of a student who doesn’t know the answer to a multiple-choice
question, so he looks at the length of the answers, common words of the answers, or the intent of the
teacher to help him guess which answer might be right. (And then the teacher marks it wrong. ) These
experts may base their stories on any number of speculative methods to justify their selection of a variant
reading:

- Lectio difficilior potior – choose the harder reading. (But what if the scribe simply lost his place and
accidently added some extraneous letters?)
- Lectio brevior – choose the shorter reading. (But what if the scribe simply lost his place and
accidently left out some letters?)
• *Lectio maioris* – choose the majority reading. (But what if the majority reading from later dates is different from the majority reading from earlier dates?)

• *Lectio animo* – choose the author’s intended meaning. (But why then can’t the modern critical texts agree on what that is?)

• *Lectio theologicas* – choose the best theological reading. (But what if everyone does not have the same theology.)

For every story that claims a scribe inserted extra words in the text to improve the grammar, there is another story that a scribe lost his place and accidently omitted those words. For every story that prefers the more difficult reading, there is another story that one scribe made an error and later scribes continued meticulously copying it. For every story that claims a scribe changed the words of a passage to make it harmonize with another gospel, there is another story that the passages originally were harmonized and it was later miscopied. For every story that accepts a factual apologetic error as original, there is another story that prefers the more theological satisfying reading. One story might seem plausible, but then later another story is told. If one is looking for textual authority, no consensus is ever reached by the storytellers because they have different theories, methods, and conjectures and thus they tell different stories. Five major critical texts disagree on Revelation 16:18, for example, so which experts should you believe? The “Alexandrian” text storytellers don’t agree with the “Byzantine” text storytellers, and oftentimes the storytellers within those camps don’t agree with each other either. Each storyteller simply thinks their judgement in weighing of the evidence is better than the other storyteller’s reasonings. And of course, there is no way ever to know for sure which subjective story is correct and thus there is no end to the storytelling method. New critical texts come out almost every year now with the editor(s) own personal bias for readings, and you are simply supposed to accept their stories over the others experts.

The basic problem with this storytelling approach is that *an explanation is not evidence*! An explanation of what might have happened is not necessarily evidence of what did happen. They are merely subjective assertions, not substantiated by data-driven scientific analysis. In the realm of science, these are referred to as “just-so stories”. As a result of this mindset, each person now feels entitled to challenge any critical text at any reading as long as they like their own subjective story better than some other “expert’s” subjective story. Ironically, many storytellers incorporate some of the exact same elements into their stories that they criticize the ancient scribes for doing, such as harmonizing parallel passages, making adjustments to the grammar, or worse yet, inserting their own conjectural emendations! Consequently, little has been accomplished using the storytelling method as many experts would rather sit around and argue about their stories in online groups and blogs, while overwhelming amounts of important textual criticism work involving data compilation and statistical analysis is left undone.

### 1.3.3 Conjectural Emendation

When confronted with a difficult passage, some storytellers resort to conjectural emendation where they *add their own new words or phrases that were not in any previous text* in an attempt to “iron out” the passage. Here they are no longer choosing between existing variants, but making up their own variants to explain what might have happened! They suppose that multiple scribes must have already messed up the text so that *every existing reading is wrong*, and so now it is up to them to alter the text again back to what *they think* the original should have been. Ironically, the experts often accuse the ancient scribes of changing words to fix the apostle’s grammar, but this is exactly what these modern textual critics are doing! Whenever a new conjectural emendation is added to the text, it effectively means that every scribe for nearly 2000 years had the discipline to maintain the “difficult” reading and resist the urge to tamper with the text, while the modern textual critics clearly did not! Thus, these textual
critics presume to have better knowledge than all the ancient scribes who were closer to the source. Conjectural emendation begins to border on a dangerous form of higher criticism, where the textual critic is no longer choosing between existing variants, but is sitting over the text and making up their own readings (Rev. 22:18-19). This is not an isolated practice as there is currently a large database of conjectural emendations.  

One classic example of a conjectural emendation was introduced for the first time in the Nestle-Aland 28th edition produced by the Institut für Neutestamentliche Textforschung (INTF). Here the editors chose to disregard all Greek manuscripts throughout history and added the word “ουχ” to 2nd Peter 3:10, which stands against every Greek manuscript as well as every other major critical text, including all their previous Nestle-Aland editions! Ironically, in their attempt to reconstruct the Greek New Testament, they ignored the readings of every Greek manuscript of the New Testament! Instead they back-translated the word “ΟΥΧ” from only two minor foreign manuscripts. (While it is acceptable to add words for clarity when translating a text, it is not acceptable for transcribing a text.) In this case, they even disregarded most of their normal storytelling principles and did not choose the harder reading, did not prefer the shorter reading, ignored the early readings of Codex Sinaiticus and Codex Vaticanus, and instead made up a new reading simply because it made more “sense” to them. How do they know what Peter intended? Should they be allowed to edit the apostle’s grammar if it makes more sense to them? Isn’t that what they accused the ancient scribes of doing? Not only did they add a word to the text, but they added the word “ΟΥΧ” meaning “not”, so that now the passage carries the opposite sense. Again, not one scribe throughout history in any geographical region was compelled to add the word “ΟΥΧ” to a single Greek manuscript to “fix” this passage, and yet the textual critics at the INTF did! To put this in perspective, the Church is being asked to accept that every Greek manuscript and every Bible translation made from the original Greek language was in error until the INTF invented a new conjectural emendation in 2015, which now makes the verse carry the opposite sense! Again, the problem is not their story is impossible, but that they are practicing the art of storytelling instead of using science. Notice that the manuscript evidence for 2nd Peter 3:10 did not change between the Nestle-Aland 27th and 28th editions, but only their story changed. A base text should only be changed when there is new evidence, not when there is a change of committee members along with their associated biases. Perhaps one day a new committee will come up with a different story and be convinced to “change it back”.

Of course, this type of “tinkering” with God’s Word is not acceptable to most Christians, and when they find out that this has been occurring, they are beginning to move away from the Nestle-Aland text as it is becoming apparent that their committee members can no longer be trusted. Making up new variants that did not previously exist does not make the text of the New Testament more reliable! Such use of conjectural emendation should be a wake-up call to anyone who cares about the integrity of the New Testament text.

1.3.4 Questionable Results

The failure to examine the earliest manuscript evidence in a straightforward scientific manner has produced some highly questionable results. This becomes quite evident when the critical texts are compared to the CNTR collation of early manuscripts. The lighter color represents the earliest class 1 and class 2 manuscript data available, the darker color represents various critical texts, and the bolded red text shows the questionable reading. For example, the Textus Receptus (KJTR) text was primarily based on late manuscripts, so it should not be surprising that it deviates from all the earliest manuscripts in thousands of places. Consider how the Textus Receptus text compares to the earliest manuscripts in Matthew 5:27:
Do you think you can determine what the original Greek text was? And yet, the Textus Receptus text, which often borrows readings from Codex Bezae (GA 05) and Codex Washingtonianus (GA 032), has departed from all of the earliest manuscripts and inserted the words “ΤΟΙ ΑΡΧΑΙΟΙ”. In order to defend themselves, many Textus Receptus supporters now base their arguments on what they think the text should have read and have come up with various conspiracy theories as justifications. But on what rational basis would you depart from the united testimony of all the available texts read and copied by the early Church for the first four centuries? The Textus Receptus text was later used in translating many older Bible versions such as the Tyndale New Testament, Geneva Bible, and the King James Version (KJV).

In a radical departure from the Textus Receptus tradition, the 1885 Westcott and Hort (WH) text heavily relied on Codex Sinaiticus (GA 01) and Codex Vaticanus (GA 03) which were two of the earliest complete manuscripts. But their methodology did not always fare very well when those two manuscripts disagreed with each other. Consider this passage in Matthew 7:13:

In this case, the original scribe of Codex Sinaiticus (GA 01) had accidently left off “Ν ΠΥΛΗ” and then corrected himself, but Westcott and Hort went with his uncorrected reading against the united testimony of all of the other early manuscripts. How is that a rational decision? Shouldn’t the original scribe be allowed to make corrections to his own work? The Westcott and Hort text was later used in translating Bibles such as the Revised Version (RV) and American Standard Version (ASV).

While some recent critical texts fare much better with the evidence, they still sometimes ignore the earliest texts and will even make up imaginary readings based on conjectural emendation. Consider this reading from 2nd Peter 3:10 in the Nestle-Aland 28th edition (NA28) text (which contains the same text as the United Bible Societies 5th edition):

| GA P64+ | 150-199 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ | ΤΟΙ ΑΡΧΑΙΟΙ |
| GA 01 | 325-360 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| GA 03 | 325-349 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| GA 03^ | 325-349 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| GA 05 | 375-499 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| GA 032 | 375-499 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| WH | 1885 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| NA28 | 2012 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| SBL | 2010 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| Byz | 2015 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |
| KJTR | 2014 | ΗΚΟΥΣΑΤΕ ΟΤΙ ΕΡΡΕΘΗ | ΟΥ ΜΟΙΧΕΥΣΑΙΟΙ |

| GA 01 | 325-360 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| GA 01^ | 325-360 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| GA 03 | 325-349 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| GA 04 | 375-499 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| GA 032 | 375-499 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| WH | 1885 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| NA28 | 2012 | ΕΙΣΕΛΘΑΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| SBL | 2010 | ΕΙΣΕΛΘΕΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
| Byz | 2015 | ΕΙΣΕΛΘΕΤΕ ΔΙΑ ΤΗς ΣΤΕΝΗΣ ΠΥΛΗΣ ΟΤΙ ΠΛΑΤΕΙΑ ΚΑΙ ΕΥΡΥΧΩΡΟΣ |
Is the reading of “ΟΥΧ” justified against all of the other early manuscript evidence? Because each variant reading was subject to a committee vote, there are dozens of places where the chosen reading seems inconsistent given the exact same conditions. Various editions of the Nestle-Aland text were later consulted in translating Bibles such as the New American Standard (NASB), New International Version (NIV), and the English Standard Version (ESV).

In reaction to the eclectic nature of the Nestle-Aland text, the Byzantine Majority (BYZ) text proponents aspire to follow the majority consensus of all the Greek texts. But since the majority of these texts usually have later dates, the earliest manuscript evidence tends to be ignored and thus the text ends up being very similar to the Textus Receptus texts, although not identical. Consider this passage from Matthew 3:11:

Notice that “ΚΑΙ ΠΥΡΙ” is missing from the Robinson-Pierpont27 and Hodges-Farstad28 and Pickering29 texts as representatives of the Byzantine Majority. While the modern eclectic texts are often accused of deleting passages, here the Byzantine Majority texts have chosen the “shorter reader” even though it is present in all of the earliest manuscripts as well as the other modern critical texts. There is no popular Bible translation so far based on a Byzantine Majority text, although several lesser-known translations are now available online.30

And then there is the Society for Biblical Literature (SBL) text31 which was primarily based on four modern Greek texts. Of course, that methodology seems suspect to begin with, so there are numerous places where it seemingly ignores the earliest manuscript evidence. For example, consider this passage in Hebrews 2:9:
Notice again that the reading "ΧΩΡΙΣ ΤΟ ΘΕΟΥ" goes against the united testimony of all early manuscripts. The SBL text has not been used for any Bible translation yet, but it is popular because it is offered as a free download on the Internet.

That is not to say that someone couldn’t attempt to make up a story to justify these types of textual decisions, but the more important point to consider is whether such justifications offer the most logical explanations given all of the available evidence. Notice that these oddball readings not only contradict the earliest manuscripts, but they usually contradict all of the other modern critical texts as well! One reason that so many ridiculous theories have been allowed to persist is that the public has not had access to all the earliest manuscripts so they could not see how absurd many of them are. No theory of textual criticism can be valid if it does not take into account the earliest manuscript evidence! Textual critics can continue to espouse all of the bizarre theories they want, but rational people will not accept them when exposed to the hard evidence. It does not matter how competent the Bible translators are, if the Greek text they are translating from does not reflect the original autographs of the New Testament.

1.4 Scientific Textual Criticism

As Christians become weary of the confusion caused by the creation of an endless number of contradictory subjective texts, more and more are beginning to consider a scientific approach to textual criticism. Indeed, a scientific approach based on data analysis which can be openly examined by all remains the most rational approach, and perhaps the only approach that could ever be universally accepted. And there is nothing to say that the Holy Spirit is not behind such a rational approach as God encourages Christians to use their minds in accomplishing His purposes (Matt. 22:37, Rom. 12:2, 1Cor. 2:12-13). It is no longer satisfactory to let various groups of “experts” mysteriously hammer out subjective critical texts behind closed doors in smoke filled rooms.32 Indeed, textual critics never have and never will come to agreement using unscientific methodologies, subjective storytelling, or conjectural emendation, and their questionable results speak for themselves!33 Any number of subjective texts could be similarly produced in the future, but they will not be able to demonstrate that they contain the most likely reading of the original autographs without a rational scientific approach based on evidence. In spite of all of the gobbledygook that has transpired in the name of textual criticism, textual criticism should still be properly thought of as a science that can be used to determine the original form of any text...including the New Testament!

In pursuit of the original autographs of the New Testament, textual critics have invented several terms along the way such as archetypal text, initial text, authorial text, etc. But there is really only one text of interest here and the average person already intuitively knows what that is – the original text that was written by the authors of the New Testament.35 Obviously, the original autographs no longer exist, so no one can prove what the original text was. Instead, what we are interested in is the text that
reconstructs the most likely reading of the original autographs. The New Testament has been thoroughly preserved through thousands of copies which agree with each other in the vast majority of cases, and where there are variant readings, the text can be established by weighing the preponderance of manuscript evidence. The text that can be objectively shown to contain the most probable reconstruction of the original autographs would therefore be the most authoritative text.\textsuperscript{12} And this lends itself quite nicely to scientific textual criticism which incorporates statistical data analysis of existing copies to reconstruct the most probable form of the original text. This technique is predicated on the assumption that most copyists get most of it right most of the time. In the case of the New Testament, the total amount of variation across all texts is only around 15\% and thus the amount of variation introduced by an individual scribe is significantly less than that, and all scribes don’t make the same mistakes in the same places. Scientific textual criticism distinguishes itself from the subjective storytelling approach in that it is based on objective verifiable evidence with methods that are both testable and repeatable. The \textit{prima facie} existence of raw data is neither a theory nor a story.

The reactions of the old-school storytelling textual critics towards scientific textual criticism are usually mixed. Many of them are warming up to the idea and like the emphasis on the statistical analysis of earliest textual evidence (although some still want to reserve the right to practice their art of making up their own stories to justify certain readings on occasion). A few hardcore storytellers, however, are openly hostile to the concept for their very careers based on the art of storytelling are on the line. Some of them are clearly agitated that a computer program could already spit out a text that is only about 500 words different than the Nestle-Aland text based only on class 1 and 2 data without any of their wonderful storytelling powers, and which also better accounts for the earliest data.\textsuperscript{2} (What were their stories needed for again?) Some of them are luddites who are completely unaware of the capabilities of computer science and are sure that no computer could ever select the right reading based on the unique story they have crafted. But surprise, other storytellers don’t agree with their story either, but instead agree with the computer’s reading! No attempt will be made to try to convert the storytellers, nor the preservationalist splinter groups for that matter, but simply to put out accessible data in scientific manner that will speak for itself. Those who understand the benefits of science know that the truth is its own reward.

Of course, there is no way to prove that the most statistically probable reading is always “right” either, but unlike the storytelling approach, the most probable reading remains the most probable reading based on the evidence. The base text does not change due to the biases of new editors or committee members, but only if there is actually new textual evidence to warrant a change! Any reading chosen through scientific textual criticism is certainly no worse off than the subjective storytelling approach, since there is always at least one storyteller that already supports the scientific based reading in their modern critical text. It might be the shorter reading, the harder reading, the majority reading, etc., \textit{but that was not the grounds for its selection}. In contrast to storytelling method, the “story” that science tells would be more along these lines: “The preponderance of the evidence weighing the earliest and most statistically reliable manuscripts across multiple geographical regions support this as the most probable reading.” Or to put it in terms for the preservationalist splinter groups: “Considering all of the extant manuscripts produced under the authority of the Church in multiple geographical regions by sincere scribes who occasionally made mistakes, this is the most plausible representation of the reading handed down in the Church and therefore the most authoritative.” Since a consensus of textual authority will never come through unscientific methodologies, subjective storytelling, or conjectural emendation, nor through spurious claims of divine revelation, conspiracy theories, or history revisionism, scientific textual criticism represents perhaps the most viable rational alternative.
Additional Challenges

While the tasks involved with restoring the New Testament in a scientific manner might seem fairly straightforward, it seems that little progress has actually been made over the centuries. In order to tackle this problem in an authentic transparent manner, all the early Greek manuscript evidence must be made available for public inspection so that everyone can examine these issues for themselves. No matter how many committees deliberate on this issue, there will always be suspicion and thus the only logical approach is to provide the public with the actual raw data. Then Christians will no longer have to rely solely upon the subjective editorial decisions of men, but can examine the evidence themselves as they are presented with all the Greek variants and allowed to inspect the process all the way back to step 1.\textsuperscript{1.1.1} Such a straightforward goal, however, has been hindered for years because of several obstacles: incomplete data,\textsuperscript{1.5.1} restricted access,\textsuperscript{1.5.2} financial barriers,\textsuperscript{1.5.3} biased scholarship,\textsuperscript{1.5.4} and educational hurdles.\textsuperscript{1.5.5}

1.5.1 Incomplete Data

As discussed in the examples above, no theory of textual criticism will produce correct results with incomplete information! The long-sought-after “holy grail” of textual criticism has been to obtain electronic access to all early extant Greek manuscripts of the New Testament. Until the creation of the CNTR collation of early manuscripts, the field of textual criticism has been operating without even a complete set of the most critical class 1 and class 2 data.\textsuperscript{2.2} For centuries, researchers could only base their works only on the limited number of manuscripts that they had access to. The materials they were working from (apparatuses, lexicons, concordances, collations, etc.) were usually done by hand, often introducing numerous errors along the way. And then many of these errors would appear in subsequent editions as they were passed on to subsequent generations.

The use of apparatuses in particular is one of the main tools in the textual critic’s toolbox, but have proven to be woefully inadequate for reliable textual critical work:

- They only show some of the variants while others are completely ignored.
- They only show a selection of manuscript sources, not a complete list.
- They do not indicate the coverage of where a text starts and or where a text stops.
- They do not disclose the condition of the characters or the extent of scribal corrections.
- They do not adequately display any orthographical differences.
- They make no distinction between the importance or reliability of the manuscripts.

And on top of this, they usually contain errors! Some apparatuses are merely derived from previous apparatuses and the same errors continue to be passed down without ever being checked for accuracy against the actual extant manuscripts. Apparatuses cannot be used to reverse engineer the text of the extant manuscripts, and they are no substitute for examining the extant manuscripts themselves. Sadly, some examples of modern scholarship today consist of nothing more than selecting variants based on these apparatuses rather than consulting the original source materials.

Continued reliance on these faulty apparatuses leads to distorted views of the text as they fail to provide a complete picture of the textual variation. As a result, the number of sources in a list are usually just counted without regard to earliness or reliability! Consider the apparatuses shown for the variant “ΤΟΙΟ ΑΡΧΑΙΟΙ” in Matthew 5:27 that was previously discussed:\textsuperscript{1.3.4}
If you read the United Bible Society 4th edition, you would not even be aware that a variant reading exists in that verse. Whether or not you agree with the Textus Receptus text, many people would still want know about the existence of that variant reading. If you read the Nestle-Aland 27th edition, you would be made aware that the variant exists and then given a list of witnesses that support that reading. Thus, you might conclude that the variant reading is preferred given such a long list of witnesses. But what you are not given is a list of all the early manuscripts which clearly do not support that reading! If you consulted the apparatus at LaParola, you would be presented with a longer list of witnesses that support each reading. With a longer list of witnesses in favor of the variant reading compared to the smaller list, perhaps you again might conclude that the variant reading should be preferred. (And if you bothered to look up the symbols listed in the smaller list, you would note that they are not actually manuscripts at all, but merely modern texts and translations.)

In all these cases, you are presented with an incomplete and distorted view of the text that suppresses the fact that this variant is absent in all of the earliest manuscripts (and all of the other major modern critical texts as well). Yet this is precisely the type of inadequate data that researchers have been using for centuries to make textual critical decisions. This is far from an isolated case as the major apparatuses typically show less than 10 percent of all variants. The problem is not really the use of an apparatus per se, but that they are grossly incomplete and therefore misleading.

1.5.2 Restricted Access

One of the reasons for the incomplete data is that many simply have not had access to the data. The Gospel was meant to be freely preached to all nations (Mark 13:10, 16:15, Matt. 24:14, Col. 1:23) and the authors of the New Testament clearly wanted their writings be made available to everyone (IThes. 5:27, cf. Acts 15:30, Col. 4:16). Yet contrary to the Spirit of Christ, many Bibles are not freely available as they are restricted by copyrights. The greed, politics, and egos of those involved in attempting to control access to various Biblical manuscripts over the centuries have been appalling. The original Greek manuscripts themselves were not copyrighted and indeed cannot be copyrighted. The New Testament is almost 2000 years old and thus any copyright claims by Matthew, Mark, Luke, and John have long since expired! Likewise, all ancient copies of their work also possess no copyright restrictions.

The fact of the matter is that no copyright can ever be enforced solely on the text of the Greek New Testament. This is not only intuitively obvious, but is also supported by U.S. copyright law. Consider a similar example concerning the public data contained in a phonebook. The publication of a particular phonebook itself, its layout, choice of cover, formatting, and arrangement of the data, is a copyrightable work in its entirety. The public data contained within it, however, is not! Another company may take a copyrighted phonebook and transcribe all the phone numbers and then publish their own copyrighted phonebook quite legally. Likewise, while a publication of Greek manuscript may be copyrighted in its entirety, the text itself is not copyrightable: “...copyright is not a tool by which a compilation author may keep others from using the facts or data he or she has collected.” Transcriptions of the extant Greek manuscripts therefore cannot be copyrighted for the same reasons. “A work that merely copies
uncopyrighted material is wholly unoriginal and the making of such a work is therefore not an infringement of copyright.\textsuperscript{41} Two independent transcriptions of the same text could even turn out to be identical, but one cannot claim that the other’s text is a copyright infringement.\textsuperscript{42} Again, the reduplication of a modern published work may be protected by copyright, but the ancient Greek text that is contained within it is not copyrightable!

For similar reasons, the public domain Greek New Testament that is reconstructed by modern critical texts also cannot be copyrightable. The amount of effort that went into its reconstruction does not matter at all. Consider again the example of the phonebook, but this time let’s imagine that the original phonebook were completely lost. By digging through the city dump and collecting fragments, examining phonebooks from adjacent years, and finding quotations from other sources, the public domain data contained in that phonebook is painstakingly reconstructed. The incredible amount of “sweat of the brow” employed to obtain the reconstruction, however, still would not provide a basis for establishing a copyright claim.\textsuperscript{43}

Regardless of the amount of effort, others would still be allowed to copy this non-copyrightable public domain data, including any errors that were made in the process!\textsuperscript{44} Of course, any particular publication of this work could still be copyrightable in its entirety, but the data contained in the publication was and will always remain in the public domain. In line with these principles, Maurice A. Robinson copyrighted his 2005 Byzantine Textform publication, but then stated that the text could be copied without restriction: “Copyright is not claimed nor asserted for the new and revised form of the Greek NT text of this edition...”\textsuperscript{45}

In contrast, the motives of the publishers of the Nestle-Aland 28th edition have been questionable as they have tried to prevent others from copying their base text.\textsuperscript{46,47} Such copyright claims, however, are highly dubious for if they assert that their reconstructed text represents the Greek New Testament, then by their own admission that text itself is not copyrightable (at least in the United States).\textsuperscript{48} The result of restoring the public domain Greek New Testament is a public domain Greek New Testament! Indeed, as researchers achieve their goal of restoring the public domain text to its original form, their texts begin to closely match each other. Consider that the copyrighted Nestle-Aland 28th edition is 98.5% identical to the public domain Westcott and Hort text, and if spelling differences are ignored they are 99.3% identical. Does a .7% change represent a new creative work or should that rather be considered plagiarism? “To be copyrightable, a derivative work must be different enough from the original to be regarded as a ‘new work’ or must contain a substantial amount of new material....The new material must be original and copyrightable in itself.”\textsuperscript{49} Of course, other unique features that are added to a published text such as apparatuses, punctuation, diacritical marks, formatting, etc., may indeed be copyrightable, but the representation of the ancient Greek text alone is not.

Since copyrights do not apply to ancient manuscripts, some museums, libraries, and even Christian organizations, have attempted to control them by limiting access to their materials. Suppressing scholars’ access to view the source materials has been often been an impediment to the field of textual criticism. Many of these institutions want to make a profit from their artifacts, so they refuse to let others examine their manuscripts unless they agree to contractually abide by their restrictions on publication. In this regard, some of them have allowed others to take photographs to be taken of their manuscripts as long as they remain restricted by contractual terms. However, such claims are no longer enforceable in the United States due to a landmark court decision which ruled that faithful reproductions of two-dimensional public domain works are considered to be in the public domain.\textsuperscript{50} Again, the amount of effort or quality of the image are irrelevant to making a copyright claim: “...a photograph which is no more than a copy of the work of another as exact as science and technology permit lacks originality. That is not to say such a feat is trivial, simply not original.”\textsuperscript{51} It also does not matter at all if the images come from foreign countries not under the United States jurisdiction\textsuperscript{52} (but copyright claims may apply in other jurisdictions). In keeping with these principles:
“Facsimile copies are simply reproductions that do not create a new copyright in the work. So, a microform copy of a public domain work is also in the public domain. If, however, the facsimile copy has new material that was added, such as a new preface or an index, that new material may be protected by copyright. The material that is in the public domain work remains in the public domain...” 53

Ironically, people have not exactly been beating down the doors of these museums to see their manuscripts, but after their images have been released online, many more become aware of them which actually increases the number who pay the entrance fee and go to see them. 54

1.5.3 Financial Barriers

The authors of the New Testament offered their teachings to others free of charge: “For we are not like many who peddle the word of God.” (2Cor. 2:17). Certainly the worker is worthy of his wages (1Tim. 5:18), but the Scripture itself is to be offered “free of charge” (1Cor. 9:18, 2Cor. 11:7, 1Thes. 2:9). Yet today, it is common for Bibles and related reference materials to be sold at Christian bookstores for profit. While many organizations should be applauded for offering their materials for free, many of the most important scholarly works and software for studying the Greek New Testament are still only available for purchase, often costing hundreds of dollars. Obviously, the very reason why most organizations copyright their works is so that they can make money off others. While some may debate the merits of selling other types of Christian literature, any organization that charges money for the Greek New Testament is quite literally selling the Gospel! Indeed, such “Christian” organizations are not ministries that freely serve the Body of Christ, but are businesses that self-perpetuate themselves by making money off the Body of Christ. Can you image Jesus charging an admission fee to hear the Sermon on the Mount? Ironically, the secular open source movement today puts these “Christian” organizations to shame as they understand the greater benefits of freely sharing their work.

In times past, there were considerable costs associated with the publication and distribution of Scripture that some organizations sought to offset by charging money. But now that materials can easily be placed on the Internet for almost no cost and downloaded for free, the greed of these organizations is blatantly obvious for they no longer have to bear any printing costs to distribute their materials. Such organizations have been deceived into thinking that “godliness is a means of financial gain” (1Tim. 6:5; cf. Tit. 1:7). They are conducting their business under a worldly materialistic mindset, but that is not how God’s economy is to function in the Church. Jesus said, “Do not make the house of My Father a house of merchandise.” (John 2:16). Those who are selling the Scripture should consider this similar warning: “May your money perish with you...You have no part or share in this matter for your heart is not right before God. Therefore repent of your wickedness and pray to the Lord that perhaps you may be forgiven of this thought in your heart.” (Acts 8:20-22). It is understandable that secular publishers would want to make a profit from the Scriptures, but that is not really a valid option for those who claim to be Christian organizations and ministries.

1.5.4 Biased Scholarship

Much of the New Testament scholarship over the years has been directed by non-Christians and liberal Christians who do not believe in the inerrancy of Scripture. Many of the leading experts in textual criticism over the centuries have not been “born-again” Christians, nor did they claim to be. For example, it is difficult to find clear evidence that even a single member of the editorial committee that produced the Nestle-Aland 28th edition was a born-again Christian. 55 Because of this, the care and respect of the
scholarship of the New Testament has often been suspect. It is inexplicable as to why so many atheists and agnostics want to become Biblical experts so they can tell Christians what they think their text means! Failing to believe in God is not a prerequisite for being an objective scholar. On the contrary, it seems that those who do not hold a high view of the Scripture tend to produce the most dishonest scholarship by exaggerating and sensationalizing their anti-Biblical claims and by purposely omitting the evidence that contradicts their position. (Of course, Christians are not helping themselves either when they do the same things and exaggerate the facts to make the Bible look more reliable than it already is.) If these experts were truly rational, then they would apply the teachings of the very text they are examining and accept Jesus Christ as Lord of their lives! Jesus said, “...unless one is born again, he cannot see the kingdom of God.” (John 3:3). Yet as it is, many of them “strain out a gnat but swallow a camel!” (Matt. 23:24).

Christians and atheists alike should both have no objection to adopting a rational approach to textual criticism based on scientific principles instead of subjective biases. Unfortunately, many evangelical Christians seem to shy away from issues in textual criticism involving variant readings for fear that it may somehow lessen the authority of Scripture. But that is not the case at all. Christians should not fear the scrutiny of the text, but are to love the truth (Prov. 23:23, John 3:19-21, John 8:32, 2Thes. 2:10), for after all, Jesus is the Truth (John 14:6). Most Christians hold to a statement of faith which states something like this: “The Bible, in the original autographs, is divinely inspired, infallible, inerrant, and authoritative in all matters of faith and conduct.” Christians should obviously therefore want to know as accurately as possible what the original autographs contained! The same Holy Spirit who inspired men to write the original autographs can also inspire men in their efforts to reconstruct those original autographs. Wouldn’t it make sense for those who believe the Scriptures to be at the cutting edge of Biblical scholarship? If you really love Jesus, shouldn’t you want to know more precisely what He said? Atheists and agnostics can argue about the words of the Bible all they want, but Christians have all the more reason to “get it right” because they are the ones who are actually trying to put the words into practice!

1.5.5 Educational Hurdles

The prospect of learning Greek is no easy task and only a small number of Christians ever attempt to study the New Testament in its original language. Although it is not necessary to learn Greek in order to understand the New Testament, it is certainly advantageous. Most students of Greek, however, are not being taught Koine Greek, but a form of Medieval Greek which is slightly more complicated and unnecessarily biases the text. As the Greek language continued to evolve up through the Middle Ages, the Greek New Testament was likewise altered to incorporate these changes such as capitalization, diacritical marks, and punctuation marks. Such embellishments, however, bias the text by referencing deity with capitalization that did not exist, imposing meanings with diacritical marks that did not exist, and parsing sentences with punctuation that did not exist. Granted, such editorial interpretations are unavoidable when translating Greek into another language such as English, but there is no reason to apply external interpretation to the Greek text for those who are reading the Greek text!

The orthography was also changed so that words are no longer spelled in a manner that they were spelled. In fact, there are over 35 places where every early manuscript is in agreement with how a word is spelled, but every modern critical text has changed that spelling to another form. They also have removed references to the nomina sacra which often give clear indication to the deity of Christ. On top of all of this, most students are taught an Erasmian phonetical system so that words are no longer pronounced in a manner that they were pronounced.

As a result, students today are now learning to read and pronounce Medieval Greek that is almost unrecognizable from its earlier form. Indeed, many who have learned Greek at a university have trouble reading the extant manuscripts of the New Testament because they look completely unfamiliar to them:
Those who endeavored to learn Greek in order read the New Testament with greater accuracy are often disappointed when they find out that they have not actually been learning Koine Greek. This information has largely been obfuscated by the educational establishment as they continue to promote a form of Greek developed in the Middle Ages. While some experts today are now beginning to extol the virtues of returning to the origins of Koine Greek, few educational materials currently exist to support this endeavor.

### 1.6 Textual Restoration

The Center for New Testament Restoration (CNTR) was founded to address all these obstacles by providing free, accessible, accurate electronic Greek materials in order to encourage a scientific approach to textual criticism. Not merely for the sake of head knowledge, but that many would apply the words of Scripture and be born again of the Spirit (John 3:3) by repenting of their sins (Acts 2:38) and receiving Jesus Christ as Lord of their lives (Rom. 10:9-10). The CNTR ascribes to an evangelical statement of faith which affirms: “The Bible, in the original autographs, is divinely inspired, inerrable, inerrant, and authoritative in all matters of faith and conduct.” While the CNTR primarily endeavors to promote scholarly research among Christians, this does not mean that non-Christians will not also benefit from a scientific approach to textual criticism.

The CNTR has now for the first time released electronic transcriptions of all references made to the Greek New Testament up to the *terminus ad quem* of 400 AD. All these electronic manuscripts can be searched, collated, parsed, and analyzed in an instance by the computer. Research can now be conducted into the nature of variant readings, textual transmission theories, orthographical patterns, and scribal tendencies that were never possible before. Collations, concordances, and statistical reports can now be accurately generated by the computer in seconds without introducing new errors. In the area of textual criticism, computer software can *automatically* generate new base texts with complete apparatuses, which can also be customized by user supplied parameters such as date, geographical location, etc.

In addition to electronic transcriptions of individual manuscripts, the CNTR has provided a *complete* collation of all the manuscripts by using a proprietary alignment algorithm. This eliminates the problems with apparatuses previously mentioned because all the variants can be seen for all of the manuscripts in a single view. Just as the clergy argued centuries ago that the “ignorant” public should not be given access to the Bible, some will undoubtedly argue that the public should not be exposed to these textual variants in the Greek texts. Too bad!

All CNTR Greek texts are depicted in Koine Greek instead of Medieval Greek for reasons previously discussed. For those who learned Medieval Greek taught by most universities, the differences between Koine Greek are not insurmountable and can be mastered very quickly. Since few educational materials exist for Koine Greek at this time, the CNTR has provided the New Testament Greek Reference Guide to help facilitate the transition.

Unlike some “Christian” organizations which literally sell the gospel for a profit, the services of the CNTR are humbly provided as a free gift to the Body of Christ, with nothing expected in return. “Freely you have received, freely give” (Matt. 10:8). All CNTR transcriptions are now available on the Internet for free download under a Creative Commons license and may not be sold for any price under any circumstances, nor may they be bundled with any materials that are sold for a profit. If you also
would like to donate time or finances to this project, or if you have any corrections or suggestions, please send e-mail to the address specified on the website.

1 This estimate is made from the number of manuscripts catalogued by the Institut für Neutestamentliche Textforschung (INTF); http://egora.uni-muenster.de/intf, accessed May 11, 2016.
10 The word “pure” here more likely refers to doctrinal purity, as the reformers were well aware of minor textual variants at that time.
13 Its earliest appearance found so far in Greek is translated from a Latin version of the Acts of the Lateran Council in 1215 AD.
14 Popular English Bible translations such as the NIV, ESV, NASB, and HCSB were translated from modern critical texts that are more “Alexandrian” in nature, with Codex Vaticanus being considered one of the most early and reliable witnesses.
15 Ironically, several years after this was originally written in 2013, the Document Resources Project was established to locate and examine the various copies of the Declaration of Independence, and indeed there were some differences! http://declaration.fas.harvard.edu, accessed April 26, 2017.
16 Speculations here as to why this field has largely been dominated by “touchy-feely” liberal arts majors instead of scientists will not be touched with a ten-foot pole. 😏
17 Johann Jakob Griesbach has been credited with the rule followed by many textual critics: “The reading is to be preferred as the original which best explains the existence of all other.” Eldon J. Epp and Gordon D. Fee, Studies in the Theory and Method of New Testament Textual Criticism, p. 181, Wm. B. Eerdmans Publishing Co.: Grand Rapids, MI, 1993.
For example, in Romans 1:19 some textual critics support the reading “ο θεος γαρ” with the story that its unusual construction makes it the harder reading and some later “Byzantine” scribe must have corrected it, while other textual critics support “ο γαρ θεος” with the story that it is the majority reading and one “Alexandrian” scribe must have mistakenly flipped the word order and others in that region merely copied the mistake.


Along similar lines: “Textual criticism is often regarded as an arcane subject that is rendered the more difficult by the impossibility of reaching final conclusions. According to this view, questions regarding the text of a classical Greek or Roman author are best left to be settled by a qualified editor....[who] will make up his mind while sipping claret in the seclusion of his study, and lesser mortals should defer to his superior judgment.” Daniel Kiss, What Catullus Wrote, preface, The Classical Press of Wales: Llandysul, Wales, 2015.

Theoretically, if an author had made corrections as he was writing it down or had previously made rough drafts, the original autographs would be the writing that the author released.


The information provided in this subsection is for informational purposes only and not for the purpose of providing legal advice. If you need legal advice, you should contact a professional attorney.


which merged with Richard Dawkins’ point, on February 4, 2016. At least that is what Dani Wallace told me at the Ratio Christi Symposium Luncheon held at Purdue University on February 4, 2016.

That does not mean that it could not be possible, but simply that no such evidence could be found. As a case in point, David Trobisch was a member of the liberal “The Jesus Project” produced by the atheistic Center for Inquiry which merged with Richard Dawkins’ Foundation for Reason & Science in 2016.

Alan Bunning, Rationality: From Ignoramus to Rationalist, Lafayette, IN, 2014.


2. **Witnesses**

The CNTR project attempts to include the text of all Greek witnesses which contain any portion of the New Testament up to the *terminus ad quem* (ending date) of 400 AD. This includes the text from inscriptions, amulets, talismans, and quotations from church fathers written on any material (papyrus, parchment, ostraca, stone, etc.). Each corrector of a manuscript counts as a separate witness to the text of the New Testament, provided that the corrections occurred prior to the *terminus ad quem*. It is important to note that a witness is not less important just because its text is fragmentary, since those fragments were once part of a complete manuscript. The CNTR collation also includes some of the more significant modern Greek critical texts for comparison purposes.

### 2.1 Terminus Ad Quem

In order to be included as a witness, the CNTR project has adopted a *terminus ad quem* of 400 AD. The “early Christian” era is generally accepted by many disciplines to be the time from Jesus Christ’s ascension around 30 AD up through the Council of Nicea in 325 AD. Around that time frame, there was a noticeable change where many Greek manuscripts had truly become eclectic texts, simply borrowing between different sets of variant readings among the available source materials. For example, there are several instances where the scribes were not merely making corrections to their handwriting, but were crossing out words and supplying other variant readings. Textual critic Kurt Aland states:

“It was assumed in the early period there were several recensions of the text (cf. von Soden), or that at the beginning of the fourth century scholars at Alexandria and elsewhere took as many good manuscripts as were available and applied their philological methods to compile a new uniform text (this was the view of our fathers, and is still that of many textual critics today as well).”

Aland considers early manuscripts to be those dated “no later than the third/fourth century, for in the fourth century a new era begins.” He contends that under Constantine’s influences, “the Byzantine church molded it to the procrustean bed of an ecclesiastically standardized and officially prescribed text.” Bruce Metzger concurs that after “Christianity received official sanction from the State” during the fourth century, “it became more usual for commercial book manufacturers, or scriptoria, to produce copies of the books of the New Testament.” Indeed, by the end of the *terminus ad quem*, this change in textual nature is readily apparent in later manuscripts such as Codex Bezae (GA 05) and Codex Washingtonianus (GA 32). Later manuscripts are also more likely to have crossed geographical boundaries of textual transmission as they gained greater dispersion over time, making it impossible to know what textual lineage they may have been copied from. For example, the Coptic Orthodox Church of Alexandria ironically no longer uses the “Alexandrian” text which was once native to their region, but now prefers a Textus Receptus text.

As a more practical matter, a *terminus ad quem* of 400 AD also just happens to provide a good tradeoff between earliness and coverage. Ideally, the *terminus ad quem* should be set as early as possible to minimize later corruptions of the text. Yet it must also be late enough to provide a sufficient amount of material. If we were to consider only class 1 data, for example, a *terminus ad quem* of 300 AD would not even provide enough material to cover all the verses of the New Testament. But moving the *terminus ad quem* to 400 AD, however, provides sufficient coverage of all the verses of the New Testament while minimizing the amount of later corruptions.
Aland points out that “practically all the substantive variants in the text of the New Testament are from the second century”, which is also confirmed by both Ernest C. Colwell and George D. Kilpatrick. If this is true, then any variant worthy of consideration was already on the table well before 400 AD.

The dates assigned to manuscripts usually involve a certain amount of subjectivity and so the sources of the dates used by the CNTR are listed along with other pertinent information influencing its assessment. Most of the manuscripts are dated based on paleography. That is, the hand writing of a manuscript is compared to the paleographic features of other documents that are more precisely dated by known historical events. The field of paleography for New Testament manuscripts is not an exact science and thus dates spanning no less than 50 years have typically been assigned beginning on 25 year boundaries. A few of the later manuscripts included would normally be assigned to the fifth century, but the general rule was adopted that a manuscript would be included if at least one expert dated it to the fourth century. Thus, the *terminus ad quem* is somewhat of a fuzzy line where anything that could have possibly have been fourth century is included. Erring on the side of inclusion was preferable over the possibility of excluding valuable data in some expert’s opinion.

The CNTR purposely has no aspirations to go beyond this *terminus ad quem*. That is because any new variant reading that occurs after that date must be viewed as highly suspect compared to the sufficient amount of earlier textual material that contradicts it. On what rational basis would you go against the collective testimony of all the earlier sources to adopt a new variant reading from a later witness? It is always amusing to read articles written by textual critics fawning over the discovery of a new manuscript dated to the ninth century. What value does such a late manuscript possibly have toward determining the original text of the New Testament? If the manuscript contains a new variant reading that was not found in any previous manuscript, then it should automatically be rejected because of united testimony all of the earlier manuscripts that contradict it. And if it merely adds support behind an existing variant reading, then it adds nothing new to the debate because of its late date. In other words, if a later manuscript does not have any early support, it cannot be trusted, and if it does have early support, then it is not needed. The number of times a variant reading appears in later manuscripts is irrelevant, *especially if it doesn’t exist in any of the earliest manuscripts!* What authority can a variant reading have that opposes every extant New Testament text that was used by the early Church in multiple geographical areas?

While it is possible that a later manuscript could contain readings that were directly copied from an earlier manuscript that had been lost, it is just as likely that it could have been copied from a manuscript that was made the previous year! There is simply no way to tell. Aliens from another planet could have obtained the originals directly from the apostles and given them to a monk in the ninth century, but we have no evidence to believe that either! The informed textual critic needs to understand that *apart from any additional documentation* regarding its origin, a manuscript from the ninth century has absolutely no advantage in determining the original text of the New Testament than a critical text made in the nineteenth century! There would be no reason to exclude a manuscript just because it came after the
printing press! A ninth century manuscript is no better off because there is no way to distinguish if the scribe was making an eclectic text, or if they were simply trying to copy an earlier manuscript. All that a manuscript from the ninth century can tell you is what someone thought the text of the New Testament was in the ninth century! Indeed, a monk who produces a manuscript in the ninth century may arguably have been in a worse position than those who create critical texts today, since he may have had access to fewer manuscripts or have been limited to manuscripts from only one geographical region.

Of course, this does not mean that every early manuscript necessarily contains a more accurate text than every later manuscript; for after all, an early scribe could have made mistakes in copying his text. For example, Codex Vaticanus is dated later than manuscript P46, yet it is often viewed as being more accurate; and Codex Bezae Cantabrigiensis is a relatively early manuscript and it is considered to be more inaccurate compared to almost any other manuscript. But what it does mean is that all unknown variables being considered equal, the corpus of early manuscripts by probability has had less opportunity for multiple generations of copying mistakes to be expressed. Thus, they provide earliest snapshots of the text in time and place, which provide important clues for how the text was transmitted. It is important to examine all of the earliest sources first, before endeavoring to surmise what later manuscripts may have been copied from, regardless of how many of them copied a particular form. In the realm of science, the prima facie evidence of an early manuscript must necessarily outweigh unsubstantiated speculations assigned to later manuscripts. There is a big difference from something that may have been copied from an early manuscript and something that is an early manuscript! Indeed, apart from additional evidence, it is entirely illogical to favor storytelling or conspiracies theories over the hard prima facie evidence.\footnote{In summary, a terminus ad quem of 400 AD was not set as an arbitrary cut-off date, it is a date well after the point after which there should be sufficient early material from all data classes,\footnote{so that the addition of any later data would simply be irrelevant for any rational basis for textual criticism when compared with the wealth of the earlier data spread across multiple geographical regions. (Of course, the CNTR would have no objection to adding another century’s worth of data to the collation, that is, if someone else is willing to do the work. ☺)}

2.2 **Data Classes**

The earliest witnesses necessary for establishing the original autographs of the Greek New Testament can be categorized into classes of data according to their relevance:

1. Greek copy of New Testament book(s) written as a continuous text from an extant manuscript dated before the terminus ad quem. This data represents the most reliable evidence for it was written by scribes with the intent of passing down copies of the New Testament.
2. Greek quotation of the New Testament in an extant manuscript dated before the terminus ad quem. This data is not as reliable since the author could be quoting the Scripture from memory or only making an allusion to a passage. For this project, a quotation is differentiated from an allusion in that it must contain at least four matching words unless there is some other supporting context.

These two classes represent the best prima facie evidence for establishing the original Greek text of the New Testament and for the first time in history have been provided in a complete collation by the CNTR. The next two most important classes of data to be included are:

3. Greek quotation of the New Testament attributed to a “time-stamped” source dated before the terminus ad quem, but retrieved from an extant manuscript dated after the terminus ad quem. This data is not as reliable as the quotations in the early extant manuscripts since the quotation of Scripture could have been altered just as easily as the Scriptures themselves (although it is
considered less likely). The church fathers were well aware that their writings could be corrupted by scribes in subsequent copies. There is also a danger that some of these works could be pseudepigraphal in nature.

4. Foreign translation of the New Testament contained in an extant manuscript dated before the terminus ad quem. These are also “early” manuscripts, but they cannot be used to establish the text of the Greek New Testament. A back-translation from these manuscripts cannot provide the precise wording of the Greek text, but they can be used to show support for or against particular variants.

There are other classes of data beyond these which continue to decrease in value towards reconstructing the text of the New Testament. Other categories of manuscripts such as minuscules and lectionaries (with the exception of GA 11604) are not included because these later texts are dated after the terminus ad quem.

One misguided approach has traditionally been to focus almost entirely on class 1 data, including manuscripts of much later dates, with only a limited awareness of the other classes of data. But a much better approach for reconstructing the earliest form of the New Testament would be to start with an exhaustive set of the earliest possible data for all classes of data.

Although all class 1 and class 2 data has already been compiled by the CNTR up to the terminus ad quem, the inclusion of class 3 and class 4 data would be crucial for any reconstruction of the original autographs of the New Testament. The class 3 data, for example, contains very early data from all geographical regions and could more than triple the amount of data currently in the CNTR collation. A complete set of this data has never been collated before and therefore has not been properly utilized by any critical text. Daniel Wallace points out, “If it could be determined what kind of text they used when they quoted from the New Testament, such information would naturally be highly valuable. But textual critics do not usually give much weight to the church fathers.” Modern critical texts that have placed an overemphasis on class 1 data present a distorted view of the New Testament because about 95% of that data comes from Egypt which only represents one geographical region. Readings from all the so-called “text-types” are found in Egypt before the terminus ad quem which tends to debunk the geography-based text-type theories, but that does not indicate the nature of the textual transmission in other geographical areas. Byzantine priority theories claim that a Byzantine text-type reflects the original autographs, but their early manuscripts were not preserved as well as they were in Egypt because of environmental conditions and that is why the Byzantine manuscripts hold later dates. Analysis done with the addition of the class 3 and class 4 data will either prove or disprove that notion. Obviously, textual criticism should not be decided based solely on the weather! As it stands, adherents to the “Alexandrian” and “Byzantine” positions are largely based on faith. The “Alexandrian” proponents have faith that the earliest Egyptian manuscripts are representative of other geographical areas, and the “Byzantine” proponents have faith that the majority of later manuscripts are representative of other early manuscripts that we don’t have. Without a comprehensive analysis of the geographical distribution of all the early classes of data, the field of textual criticism has largely been shooting in the dark.
2.3 Identification

Each CNTR witness containing portions of the Greek New Testament has been assigned a unique identifier according to its class of data. Class 1 identifiers consist of Gregory-Aland numbers prefixed with “GA” that were first introduced by Caspar Rene Gregory, and then updated by Kurt Aland, and are now maintained at the Institut für Neutestamentliche Textforschung (INTF) at the University of Münster. These represent manuscripts which originally contained one or more books of the New Testament written on papyrus (represented by the letter “P”), parchment (represented by the number “0”), or ostrac (represented here by the letter “O”). The GA numbers previously assigned to ostraca are no longer included in the “Liste Handschriften”. In a few instances, some manuscripts that were assigned more than one GA number have been combined because they were later determined to have originally been part of the same manuscript. In such cases, the manuscript is classified by the first GA number followed by the “+” sign to indicate that it includes other manuscripts:

- GA P15+ = P15 + P16
- GA P49+ = P49 + P65
- GA P64+ = P64 + P67
- GA P77+ = P77 + P103
- GA 029+ = 029 + 0113 + 0125 + 0139
- GA 059+ = 059 + 0215

Class 2 identifiers consist of Trismegistos numbers prefixed with “TM”. Trismegistos numbers represent content from several databases and have become the defacto numbering system for all documents of antiquity. The manuscripts in this category are not copies of the New Testament books, but contain citations of the Greek New Testament from any source including inscriptions, amulets, talismans, and “church fathers” quotations. Some manuscripts that were originally (mis)assigned GA numbers have been reclassified to this category since they were clearly not copies of books of the New Testament:

- TM 61715 = GA P7 (a Christian writing probably by a church father)
- TM 61868 = GA P10 (a writing exercise)
- TM 62312 = GA P12 (an isolated quotation in private correspondence)
- TM 61709 = GA P50 (an amulet or talisman)
- TM 61839 = GA P62 (a selection of Scripture passages)
- TM 61695 = GA P78 (an amulet or talisman)
- TM 61873 = GA P99 (a glossary of unconnected words and phrases)
- TM 61645 = GA P80 (a commentary on Scripture)
- TM 61795 = GA 0192 or GA-11604 (quotations from the earliest known lectionary)
- TM 61914 = GA 0212 (a harmonization of the Gospels known as the Diatessaron)
- TM 61871 = GA O24 (a Scripture quotation written on ostrac)

If an identifier is followed by another character, it denotes another scribe that corrected the manuscript. The “^” symbol indicates a correction by the original scribe who wrote the manuscript and thus should be considered to be a part of the original intent of the manuscript. After all, the original author should be allowed to correct his own mistakes! Subsequent corrections to the manuscript by other hands, however, are treated as separate witnesses and are assigned a letter (i.e. a, b, c), provided that the corrections themselves still fall within the terminus ad quem. All corrections done after the terminus ad quem have been ignored. Corrections made centuries later by other hands are no more useful in
determining the original autographs than if someone took an ancient manuscript and then applied corrections to it based on the Nestle-Aland 28th edition. The modern critical texts that have been included for comparison purposes have been assigned their own unique mnemonic abbreviations.

2.4 Metadata

Detailed metadata has been compiled and placed in a database for each witness used in the CNTR project. Such data is useful for conducting searches to provide new insights that have never been possible before. For example, queries such as “display the geographical distribution of all of the copies by John progressing by date”, “display the relationship between geographical distribution and certain variant readings”, or “display all the copies of Matthew that have so many columns or lines per page” are now possible for the first time and can be answered in seconds. Original research had to be done to collect much of this data, often discovering mistakes made in other publications (but perhaps introducing some new ones as well ☹). The following information has been collected for each witness:

Aliases: References made to the same manuscript in other catalogues or numbering systems. The Trismegistos (TM) number of the artifact is also included. Brackets depict which leafs belong with which alias.

Description: The material, dimensions, number of extant leafs, columns, lines and characters, and the languages used. The dimensions depict the largest fragment of the manuscript followed by an estimate for the reconstructed manuscript in parenthesis if they are different. The number of lines reflects the highest number of visible lines per page (followed by an estimate for the reconstructed manuscript in parenthesis if they are different). The number of characters reflects the average number of characters per line within 50% of the most frequent line character counts (when given sufficient data).

Publication: The first time the text of manuscript was published with either a transcription or images of the complete manuscript. Some manuscripts have been published numerous times, but only the first of these is listed here. The Online Computer Library Center (OCLC) number of the publication is also listed. Brackets depict which leafs were first published by which source.

Origination The date and place of origination. After the date is listed, the source for the estimate has been given followed by any other pertinent information influencing its assessment. The original name of the geographic location is listed followed by the modern name and the Getty Thesaurus of Geographic Names (TGN) number.

Provenance: The history of the artifact detailing the transfer of ownership. The bold headings indicate the library or museum where the extant manuscript is currently located. Brackets depict which leafs were transferred to which owners. Occasionally the earlier provenance is somewhat speculative in nature.
Scribes: The scribes that wrote or edited verses on the manuscript along with their dates (provided that they fall within the terminus ad quem). The original scribe is rated by his hand writing quality: professional hand (well-formed letters adhering to upper and lower boundaries with even spacing), reformed documentary hand (approaching a professional look but slightly less polished), documentary hand (common for legal documents or correspondence written for others with inconsistent letters and spacing), or common hand (untrained hand barely able to write). One might assume that a professional scribe may have gone to greater lengths to ensure an accurate copying process than an untrained person writing with a common hand for their own personal use.

Literature: For quotations of Scripture, the literary work or genre and the author are listed. The date of the literature is also provided when the identity of the work is known.

Content: The verses are listed in the order contained in the manuscript, noting that the order of New Testament books can vary from manuscript to manuscript. The list of omissions specifies verses that were explicitly missing from the manuscript. Verses listed in brackets were omitted or included by one of the hands.

Notes: Any other pertinent notes of interest about the manuscript.

The manuscript transcriptions are numbered in order reflecting the number of extant leaves of the entire manuscript, including any additional works besides the New Testament portions. The leaf has been selected as the basic numbering unit because every manuscript page always has a front (recto) and a back (verso). Scrolls are numbered by their columns on the front and columns on the back. The Inventory, Provenance, and Publication fields make reference to the applicable extant leaves when the entire manuscript does not reside in the same location, was not transferred as a single unit, and/or was published piecemeal by different sources. If additional leaves of a manuscript are found later, the transcription numbering will be updated accordingly. Other units involving folded pages such as folios and quires may prove useful in understanding a manuscript’s construction, but are often unknown and are not included here. It important to note that the leaf numbers do not necessarily correspond to any page numbers that might appear on the manuscript. Such page numbers are inadequate as a reference system for several reasons: some manuscripts are not numbered at all, some leading or trailing pages may not be numbered, some pages have been misnumbered, and some pages were numbered by later scribes and placed into a different order.

6 With only class 1 data, there are some verses in the books of 1 Timothy, 2 Timothy, Titus, Philemon, and Revelation that are limited to two witnesses. The inclusion of the other data classes would more than remedy this situation.
9 “Apart from errors which can occur anywhere as long as books are copied by hand, almost all variants can be presumed to have been created by 200 AD.” George D. Kilpatrick, “The Bodmer and Mississippi Collection of Biblical and Christian Texts”, Roman and Byzantine Studies, Vol. 4, No.1, p. 42, Winter 1963.
10 Some substantive variants are not found before 400AD if limited to the class 1 and class 2 data currently shown in the CNTR collation, but may be found in the other classes of data.
11 To offer an analogy, if the Nestle-Aland text were the most popular text 1000 years from now, someone might conclude that the word “OXY” was original to 2nd Peter 3:10, even though it was not invented by the INTF until 2015. With some many copies in existence, surely it must have copied directly from another Greek manuscript that we no longer possess right? And the fact that there would be so many extant copies of it must prove that it was correct right? Indeed, one could already claim that the Nestle-Aland text is the Majority Text today assuming there are more copies of it in circulation that other critical texts when using a straight nose-count approach.
12 Irenaeus wrote, “If, dear reader, you should transcribe this little book, I adjure you... to compare your transcript and correct it carefully by this copy from which you have made your transcript. This adjuration likewise you must transcribe and include in your copy.” (Eusebius, Ecclesiastical History, 5.20.2; G. A. Williamson tr., The History of the Church from Christ to Constantine, p. 227, Barnes & Noble Books: New York, 1995.) Jerome wrote, “If then you find errors or omissions which interfere with the sense, these you must impute not to me but to your own servants; they are due to the ignorance or carelessness of the copyists, who write down not what they find but what they take to be the meaning, and do but expose their own mistakes when they try to correct those of others.” (Jerome, Epistulae, 71.5; Phillip Schaff ed., Nicene and Post-Nicene Fathers of the Christian Church, series 1 and 2, Christian Literature: New York, 1886-1889.)
13 An estimate from Biblidex.com indicates that church father quotations up to 400 AD would contain approximately 147,279 total verses covering 89.4% of the New Testament. A large but unknown number of these, however, are merely allusions.
15 “The simple fact that all these papyri, with their various distinctive characteristics, did exist side by side in the same ecclesiastical province, that is, in Egypt, where they were found, is the best argument against the existence of any text types, including the Alexandrian and the Antiochian [Byzantine]”. Kurt Alan, “The Significance of the Papyri for Progress in New Testament Research” in J. Phillip Hyatt ed., The Bible in Modern Scholarship, p. 325-346, Abingdon Press: New York, 1965.
3. Transcriptions

CNTR electronic transcriptions endeavor to faithfully represent the text of all Greek witnesses which contain any portion of the New Testament up to the *terminus ad quem* without correcting any spelling or grammatical errors. These transcriptions coupled with the CNTR metadata allows for detailed orthographical studies that were never before possible. Some editorial marks have been retained as discussed below, but all other types of scribal marks, diacritical marks, and punctuation marks which would have not been present in the Koine Greek of the original autographs have been ignored. The modern Greek critical texts also have been represented in the same fashion in order to capture what would have been their essence in the Koine Greek. In other words, they have been reverted back from Medieval Greek to something closer to the original form.

3.1 Graphemes

The CNTR texts use standard Unicode characters to represent the Greek letters. When working with different character sets, it is important to recognize the difference between a character and the font that is applied to a character. In the beginning, personal computers only used ASCII characters and there were no fonts that could be applied. Later, as word processing programs evolved, the ability to apply different fonts to characters began to emerge. Thus, the ASCII character “α”, for example, could be made to *look* differently by applying different fonts such as Arial “α” or Courier New “α”. The Symbol font was also developed which makes the character “α” look like the Greek alpha “α”, even though the underlying character was still just an English “a”. Later, other Greek fonts were developed that would make standard ASCII characters look like letters in the Greek character set.

When Unicode was developed, however, each international character (Greek, Hebrew, Chinese, etc.) was assigned its own unique character code. Then it was no longer necessary to use a font to make English characters *look* like Greek characters because each Greek character has been assigned its own unique character code. Thus, the characters “α”, “α”, and “ξ” in Unicode are all completely different characters and are generated by typing in different keystroke combinations. The normal fonts were then extended to cover these new international codes so that now the Unicode Greek alpha character can be rendered by different fonts such as Arial “α” or Courier New “α”. (These fonts are all applied to the Greek character “α”, not the English letter “a”). To add diacritical marks to these Greek characters usually requires special combinations of keystrokes and they are not always represented by every font. Characters that are not represented with a particular font often appear as a square box “□”.

Unicode characters can be represented in different computer formats, but UTF-8 and UTF-16 are the most common formats. The following table shows the relationship between the older ASCII characters and the newer Unicode characters.

<table>
<thead>
<tr>
<th>Name</th>
<th>UTF-8</th>
<th>UTF-16</th>
<th>Arial</th>
<th>KoineGreek</th>
</tr>
</thead>
<tbody>
<tr>
<td>alpha</td>
<td>CEB1</td>
<td>03B1</td>
<td>α</td>
<td>Α</td>
</tr>
<tr>
<td>beta</td>
<td>CEB2</td>
<td>03B2</td>
<td>β</td>
<td>Β</td>
</tr>
<tr>
<td>gamma</td>
<td>CEB3</td>
<td>03B3</td>
<td>γ</td>
<td>Γ</td>
</tr>
<tr>
<td>delta</td>
<td>CEB4</td>
<td>03B4</td>
<td>δ</td>
<td>Δ</td>
</tr>
<tr>
<td>epsilon</td>
<td>CEB5</td>
<td>03B5</td>
<td>ε</td>
<td>Ε</td>
</tr>
<tr>
<td>zeta</td>
<td>CEB6</td>
<td>03B6</td>
<td>ζ</td>
<td>Ζ</td>
</tr>
<tr>
<td>eta</td>
<td>CEB7</td>
<td>03B7</td>
<td>η</td>
<td>Η</td>
</tr>
<tr>
<td>theta</td>
<td>CEB8</td>
<td>03B8</td>
<td>θ</td>
<td>Θ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASCII</th>
<th>Arial</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>a</td>
<td>α</td>
</tr>
<tr>
<td>62</td>
<td>b</td>
<td>β</td>
</tr>
<tr>
<td>67</td>
<td>g</td>
<td>γ</td>
</tr>
<tr>
<td>64</td>
<td>d</td>
<td>δ</td>
</tr>
<tr>
<td>65</td>
<td>e</td>
<td>ε</td>
</tr>
<tr>
<td>7A</td>
<td>z</td>
<td>ζ</td>
</tr>
<tr>
<td>68</td>
<td>h</td>
<td>η</td>
</tr>
<tr>
<td>71</td>
<td>q</td>
<td>θ</td>
</tr>
</tbody>
</table>
Notice that the Unicode characters rendered with the KoineGreek font differ in appearance from the same characters rendered with the Arial font.

The CNTR texts do not differentiate between the medial sigma and final sigma characters because there was no such distinction present in the original Greek manuscripts. Originally, there was only one type of sigma, the lunate sigma, which does not resemble the modern uppercase, lowercase, or final sigma, but had a crescent shape “C”. The concept of a final sigma was not added until centuries later. The inclusion of final sigmas today can be misleading for they appear to signify the definite ending of the word when there was no such distinction in the original manuscripts.

### 3.1.1 Capitalization

The CNTR texts do not use any capitalization because it did not exist in the original autographs of the New Testament. There was no such thing as uppercase and lowercase characters for there was only a single form for each letter which was written in a majuscule (or uncial) script. Around the 9th century, a cursive minuscule script emerged which eventually developed into the Greek lowercase letters used today. This minuscule script was used because the more compact style used less parchment and could be written more quickly. The earliest minuscule Greek text with a known date is the Uspenski Gospels (MS 461) bearing the year 835. Even then, however, there was still no concept of capitalizing words; it was merely a change in the style of script. The practice of capitalization developed even later in the Middle Ages as the first letter of a word was sometimes capitalized to provide a form of emphasis in some formal documents. The modern uppercase letters were derived from the majuscule script (with a few letters borrowed from an even older archaic script used for inscriptions), and the lowercase letters were derived from the minuscule script. Thus, any capitalization present in the Greek New Testament texts today is due entirely to an editor’s subjective additions. Arguments over which words should be capitalized to refer to a deity are entirely speculative and bias the text since such distinctions did not exist in the original Greek manuscripts.
3.1.2 Diacritical Marks

The CNTR texts do not contain any diacritical marks (acute accent ᾳ, grave accent ἀ, circumflex accent ᾱ, rough breathing ᾲ, smooth breathing ᾳ, dieresis ᾴ, iota subscript ι, or elision ι’) because they were not present in the original autographs of the New Testament. The authors of the New Testament did not use diacritical marks in their writings for they were not added to Greek texts until hundreds of years later. (While some marks such as the dieresis, iota subscript, and elision existed at that time, they were rarely used and not reflected in the early New Testament manuscripts in any consistent fashion.) It is also impractical to try to add diacritical marks to a badly fragmented manuscript since the recessive position cannot be determined when the ending of a word is missing, enclitics and proclitics cannot be determined when the adjacent word is missing, and heteronyms cannot be properly marked when the context of the sentence is missing.

Aside from this, the value of diacritical marks is questionable anyway when it comes to pronunciation. Diacritical marks were reputedly first introduced by Aristophanes of Byzantium in order to help preserve the pronunciation of ancient Greek. Unfortunately, the rising and falling of the original tonal accents of Greek were changed into stress accents many centuries later. When this was combined with a new phonetic scheme later contrived by Erasmus, the Greek pronunciation system that is traditionally taught today does not sound anything like the original Koine Greek. In short, Greek educators have applied marks that didn’t exist to pronounce the text in a way that it wasn’t pronounced! (The phonetics of modern Greek is actually closer to the pronunciation of Koine Greek than this manufactured system and some have begun teaching students using the modern Greek pronunciation.)

Even though the traditional pronunciation system is admittedly flawed, some educators continue to use these diacritical marks to provide a consistent method of verbal exchange. But memorizing the diacritical marks for the lexical entry of a word is not at all helpful when the position of the accent can change depending on the ending of the word. Does requiring someone to learn the different pronunciations of πίστεως, πιστεύω, and πιστεύοντος really provide the desired pedagogical consistency? If one person says ἀγάπη but another says αγάπη, is that any more of a barrier than an American trying to understand an Australian’s accent? The ancient Greeks spoke a wide variety of different dialects, so reconstructing the exact pronunciation is debatable anyway. If it is acceptable to continue to use a false system of pronunciation in the name of consistency, then why not arbitrary make a simple rule to always accent the first syllable? This would always be consistent, easier to learn, and eliminate the need for any diacritical marks (and still be just as wrong as the current system).

Diacritical marks also add an unnecessary level of complexity to learning Greek. The rules to correctly place an accent mark are exceedingly complicated and often misapplied even by experts. Such diacritical marks needlessly clutter the Greek text hindering the reader’s natural fluency. Students are often slowed down as they strain to see whether a tiny mark is turned one way or the other and sometimes mistake it to be part of the letter. That is as unnatural as trying to read English with syllable and vowel markings: ἵς thēs-‘tēnce ēas-‘iēr tō ōkēad? It is quite unnatural to encumber readers with the “training wheels” of pronunciation by embedding them within the language itself. Indeed, modern Greeks have now abandoned the diacritical marks of the complex polytonic system in favor of a simpler monotonic system. The diacritical marks were originally added to the ancient texts to keep step with the evolution of the Greek language, but now that modern Greek has dropped such markings, will they continue to keep in step and revise their materials to use the new monotonic system, or will they continue to be stuck in the Middle Ages?

Perhaps a more serious problem, however, is that adding diacritical marks to the words of the New Testament sometimes imposes a bias on the text which forces a specific interpretation. For those who believe in the inerrancy of the Scriptures, if a diacritical mark is applied to a heteronym that could have several meanings, and the wrong one is chosen, these additions have correspondingly misrepresented the
author’s intended meaning. Consider this ambiguous phrase in English, “The invalid drawer bowed.” Does this refer to a warped piece of metal furniture, or a crippled architect taking credit? Normally, the reader is trusted to interpret such a sentence by the surrounding context, 

but not by adding phonetic markings from the dictionary. Likewise, numerous ambiguous heteronyms exist in Greek which have different meanings depending on the context (ΑΥΘ, ΕΝ, ΤΙΚ, ΒΑΛΩΝ, etc.). Do students recognize the differences between ἥ, ἢ, and ἦ? Students should be taught to distinguish a definite article from a relative pronoun, a present from a liquid future, and a nominative from a dative by the context, not by straining over an editor’s choice of extraneous marks. This is how the ancient Greeks understood their own language since these diacritical marks did not exist.

3.1.3 Punctuation Marks

The CNTR texts do not use any punctuation marks because they were not present in the original autographs of the New Testament. Aland points out that the original texts “naturally also lacked punctuation”. The authors of the New Testament did not use any periods, question marks, commas, semicolons, quotation marks, etc. in their writings for such punctuation did not become prevalent in Greek texts until hundreds of years later. Later efforts to standardize punctuation such as paragraph marks, pauses, or stops, based on markings in some early manuscripts, could perhaps show an earlier understanding of the text, but this does not necessarily give any indication at all of what the original authors wrote. In keeping with this idea, Metzger states: “The oldest manuscripts (P66, 75*) Α* Β) have no punctuation here, and in any case the presence of punctuation in Greek manuscripts, as well as in versional and patristic sources, cannot be regarded as more than the reflection of current exegetical understanding of the meaning of the passage.” Like diacritical marks, punctuation marks can often bias the interpretation of the text by externally influencing the connection of phrases and ideas. There is also wide range of disagreement in many verses between editors who have added punctuation to their Greek texts.

3.1.4 Special Characters

In addition to the normal Greek alphabet, the following special characters and ligatures have also been retained in the CNTR transcriptions:

<table>
<thead>
<tr>
<th>Name</th>
<th>UTF-8</th>
<th>UTF-16</th>
<th>KoineGreek</th>
</tr>
</thead>
<tbody>
<tr>
<td>overline</td>
<td>CC85</td>
<td>0305</td>
<td>~</td>
</tr>
<tr>
<td>number sign</td>
<td>CDB5</td>
<td>0375</td>
<td>~</td>
</tr>
<tr>
<td>kai</td>
<td>CF97</td>
<td>03D7</td>
<td>Κ</td>
</tr>
<tr>
<td>stigma</td>
<td>CF9B</td>
<td>03DB</td>
<td>Σ</td>
</tr>
<tr>
<td>kappa</td>
<td>CF9F</td>
<td>03DF</td>
<td>Ψ</td>
</tr>
<tr>
<td>staurogram</td>
<td>E2B3A8</td>
<td>2CE8</td>
<td>Π</td>
</tr>
<tr>
<td>implied nu</td>
<td>EE8080</td>
<td>E000</td>
<td>Ν</td>
</tr>
<tr>
<td>mou</td>
<td>EE8081</td>
<td>E001</td>
<td>Μ</td>
</tr>
<tr>
<td>unknown</td>
<td>EFBFBD</td>
<td>FFFD</td>
<td>⬤</td>
</tr>
</tbody>
</table>

The CNTR transcriptions retain any ligatures that were present in manuscripts before the terminus ad quem. A ligature is a character which represents multiple letters that have been combined together to form a single glyph. So far, the only ligatures used include Κ (ΚΑΙ), Ν (ΜΟΥ), and Π (ΤΠ). Most other transcriptions do not retain these characters, but spell the letters out in full. For purposes of textual
criticism, however, it is important to maintain the correct character spacing in the manuscripts whenever possible. If the letters were spelled out in full, it would alter the correct line lengths of a column.

The unknown character represents a letter that was clearly present, but it could not be made out at all. This often occurs when a letter was erased or rubbed out by a corrector and then overwritten. These characters are distinguished from the supplied characters in lacunae for those characters were not present, while the unknown characters were present but simply not decipherable.

The overline character was used by scribes for several different situations. Sometimes an overline character was placed over the last letter at the end of a column to imply the presence of the letter nu that was left off to save space. This scribal mark can even occur if a column breaks at a nu in the middle of a word, and so it should not be confused with the concept of “movable nu”. This character is represented by the implied nu character (n̄) in the collation since the formatting of column breaks is not retained in that format. The overline character was also placed above abbreviations of nomina sacra to indicate a reference to a “sacred name”. An ordinary word such as “son” would be written out fully in other contexts, for example, but then abbreviated with an overline if it was used in reference to the “Son of God”. The most common examples of early nomina sacra include:

<table>
<thead>
<tr>
<th>Lemma</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἀνοροτος</td>
<td>ἀνος, ἀνοι, ἀνος, ἀνω, ἀνος, ἀνος, ἀνος, ἀνος, ἀνος, ἀνος, ἀνος</td>
</tr>
<tr>
<td>θεος</td>
<td>θε, θη, θω, θη, θε</td>
</tr>
<tr>
<td>κυριος</td>
<td>κς, κη, κω, κη, κε</td>
</tr>
<tr>
<td>ἠγους</td>
<td>ις, ιη, ιη, ιη, ιη, ιη, ιη, ιη, ιη</td>
</tr>
<tr>
<td>ιεροςαλημ</td>
<td>ια, ας</td>
</tr>
<tr>
<td>ιερα</td>
<td>ια, ις</td>
</tr>
<tr>
<td>παθρ</td>
<td>πρ, πηρ, πηρ, πηρ, πηρ, πηρ, πηρ, πηρ, πηρ</td>
</tr>
<tr>
<td>πνευμα</td>
<td>πνα, πνα, πνα, πνα, πνα, πνα, πνα, πνα</td>
</tr>
<tr>
<td>σταυρος</td>
<td>στρω, στρω, στρω, στρω, στρω, στρω</td>
</tr>
<tr>
<td>υιος</td>
<td>υς, υς, υς, υς, υς, υς, υς, υς, υς, υς</td>
</tr>
<tr>
<td>χριστος</td>
<td>χς, χς, χς, χς, χς, χς, χς, χς, χς, χς</td>
</tr>
</tbody>
</table>

Although evidence of nomina sacra is present in most of the earliest manuscripts, it is unknown if they were present in any of the original autographs. After the 2nd century, this practice was expanded to include more words causing some to doubt whether the practice truly denoted sacred names or whether they were simply common abbreviations:

<table>
<thead>
<tr>
<th>Lemma</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ααγια</td>
<td>αααα</td>
</tr>
<tr>
<td>μηθρ</td>
<td>μηρ, μηρ, μηρ, μηρ, μηρ, μηρ</td>
</tr>
<tr>
<td>ουρανος</td>
<td>ουνα, ουνα, ουνα, ουνα, ουνα</td>
</tr>
<tr>
<td>κωθθρ</td>
<td>κωρ, κωρ, κωρ, κωρ, κωρ, κωρ</td>
</tr>
</tbody>
</table>

The overline character was also used to indicate an abbreviation of a number. When used for this purpose, each letter of the Greek alphabet represents a numerical value. The stigma and koppa characters
were no longer used as letters in the Greek alphabet at that time, but they still retained their numerical values and were used for that purpose.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ι</td>
<td>10</td>
</tr>
<tr>
<td>μ</td>
<td>40</td>
</tr>
<tr>
<td>σ</td>
<td>200</td>
</tr>
<tr>
<td>τ</td>
<td>300</td>
</tr>
<tr>
<td>υ</td>
<td>400</td>
</tr>
<tr>
<td>φ</td>
<td>500</td>
</tr>
<tr>
<td>χ</td>
<td>600</td>
</tr>
<tr>
<td>ψ</td>
<td>700</td>
</tr>
<tr>
<td>θ</td>
<td>900</td>
</tr>
<tr>
<td>ια</td>
<td>1000</td>
</tr>
</tbody>
</table>

3.1.5 Editorial Marks

The CNTR texts contain the following editorial marks which obviously were not part of the original Greek manuscripts:

- The underscore character is used in the modern Greek critical texts to indicate where a word in the original publication was divided in order to conform to CNTR word division conventions. If a word begins with an underscore, then that word was originally appended to the end of the previous word. If an underscore appears in the middle of a word, then the word was originally divided into two words.

- The asterisk character is used to indicating the spacing of the text relative to the verse in the collation. An asterisk on a line by itself denotes that the verse was explicitly omitted.

- Curly brackets indicate words that were corrected by the original scribe or another hand on the same manuscript.

- Square brackets are used by some of the modern critical texts to indicate that words or letters in a reading are suspect. “A secondary reading consisting of the omission of words retained in the primary reading is marked by simple brackets [ ] in the text, enclosing the omitted word or words.”

The double bracketed text used in the 1885 Westcott and Hort, 2010 Society of Biblical Literature, and Nestle-Alan 28 texts was not retained since it was not considered to be part of the original text. “Double brackets [[ ]] have therefore been adopted...where the omitted words appeared to be derived from an external written or unwritten source, and had likewise exceptional claims to retention in the body of the text...” Likewise, the colophons used at the ends of the 2005 Byzantine Textform texts were not retained because they were not considered to be part of the original text.

3.2 Character Condition

The CNTR texts follow the normal trinary transcription standard based on the Leiden convention and its subsequent refinements which differentiates the clear text from the damaged text and missing text (lacuna). CNTR transcriptions present these distinctions using the following format:
The implementation of this trinary standard can be subjective and is often inconsistently applied by different transcriptionists. A transcriptionist’s criteria for designating an underdot may range anywhere from “damaged” to “small trace” to “uncertain”. In practice, many transcriptionists do not always evaluate an individual character in isolation from its surrounding context. For example, a transcriptionist who is familiar with the text may place an underdot under the trace of a letter that makes up part of an anticipated word, while another transcription would use a question mark since the character could not be identified on its own. In addition to this, there are other factors which influence a transcription’s quality:

- Some transcriptions were done by inspecting the original manuscript, while others were done from photographs of varying quality.
- Some transcriptions made use of more sophisticated forensic techniques, while others were limited to visual inspection.
- Some transcriptions were done when a manuscript was in better condition, while others were performed years after its discovery and the manuscript had begun to degrade.

As to the latter point, consider how much the manuscript GA P72 has degraded over time through three successive images:

A transcriptionist who examined the third image which is the most recent (and highest resolution) would show several letters as damaged and missing that were completely visible to the earlier transcriptionist who examined the first image (of lower resolution). Indeed, among the many transcriptions consulted for this project, there was often inconsistency in the condition of the damaged letters (and the CNTR transcriptions are not particularly consistent either). The idea that a consensus could be reached among scholars for the level of certainty of every letter in every manuscript is highly impractical.
As a result, the CNTR texts tend to use an optimistic transcription standard. That is, if another transcription specified greater certainty for a particular letter, then the CNTR transcription would often be altered to accept that designation, trusting that they had access to better images or technology. That is, provided that there was no disagreement on what the letter in question actually was. Thus, any debates would only be over the condition of particular letters, but not what the letters actually were. If someone were to contest a questionable letter in order to advocate a new reading, they would have to go back and examine the original manuscript anyway to see if any remnants of the letter would be consistent with their proposed reading. Any disagreements between transcriptions over the identity of a particular character were resolved by examining the images of the extant manuscripts.

Many manuscripts contain lacunae (or gaps) in the text where a damaged portion of a manuscript was missing or illegible. Missing words were supplied for a lacuna in the CNTR texts if the extent of damage did not extend beyond the next verse. Thus, there is no single verse in the CNTR texts that consists entirely of supplied words. Obviously, the larger the lacuna, the more speculative the supplied reading becomes. For this reason, there was no attempt to supply long speculative reconstructions to the imagined edges of a manuscript which could have contained any reading. While the supplied words for lacunae are sometimes speculative in nature, they become significant when a limited amount of space indicates a certain variant reading while excluding others. In some apparatuses these readings are marked as vid which stands for videtur in Latin, meaning “apparently”. The supplied words for lacunae tend to follow the equivalent readings from other texts while attempting to retain the manuscript’s conventions of spelling and abbreviations in a manner that is consistent with its column spacing.

### 3.3 Textual Accuracy

There is nothing special about a computerized transcription that makes it inherently immune from errors, and in fact many of the same types of scribal errors were made in the creation of the CNTR transcriptions. Consider that professional transcription standards which allow 1 error per 20,000 characters would amount to about 37 errors in the New Testament. Thus, whenever possible, the CNTR transcriptions were compared against electronic texts from other sources. Each text was normalized to a standard format and then compared with the equivalent CNTR transcription. Any differences between the CNTR transcriptions and these other sources were resolved by examining images or publications of the original extant manuscripts. This comparative methodology does not guarantee that all CNTR transcriptions are without errors, but it greatly improves their accuracy compared to many of the other texts that were examined. In the cases where three or more original electronic transcriptions were compared, it is highly likely that those texts do not contain any transcription errors. Several CNTR transcriptions, however, were the first electronic transcriptions ever made so it is possible that they may still have some errors since there were no other electronic transcriptions to compare them with. The CNTR texts continue to be checked against other new electronic transcriptions whenever possible and are updated whenever errors are found. One advantage of computerized transcriptions is that when errors are corrected, then tend to stay corrected.

Of course, it is understandable that there would be some typographical errors or disagreements over the conditions of letters in the manuscript transcriptions. But what is unexpected is that the electronic versions of the modern Greek critical texts also contained errors, and at a much higher rate than normal! For example, most of the well-known modern Greek critical texts that were obtained from the Internet and various Bible programs contained errors! For example, here are the number of errors that were discovered when transcribing the 1885 Westcott and Hort text:
Similar errors were found in almost every other Greek modern critical text found on the Internet and various Bible programs! Several errors were even found in the Nestle-Aland 28th online text hosted on the organization’s own website! Unfortunately, these same errors continue to find their way into different websites and Bible programs as copies are merely being made of these same errant copies. While some of this analysis was done several years ago, it would not be surprising if most of the copies available on various websites and Bible programs still contain the same errors.

Such errors have proliferated a new form of electronic textual criticism, whereas the lineage of an electronic manuscript can often be determined by examining a few verses that contain these known errors. It should be noted that having multiple copies of an electronic text is not the same thing as having multiple unique transcriptions. For example, many downloads of the 1550 Stephanus text are widely available today, but most of them were all derivatives from the same transcription source containing an orthography that is greatly different from the original text. Instead of complaining about all of the textual variants caused by scribes who made careless copies by hand, perhaps the critics ought to be concerned about all of these new electronic textual variants that are being propagated all over the world by the Internet! Ironically, errors were passed down by hand because there were no computers, and now errors are passed down by the computers!

---

5 This archaic script used for inscriptions is sometimes referred to as “capitals” because some of the modern capital letters (alpha, epsilon, xi, sigma and omega) letters were borrowed from it after the fact. But this is somewhat of a misnomer because they were not actually capital letters at that time; there was only a single form for each letter and there was no such thing as uppercase and lowercase letters.
25 For example, as of May 2016, the online Nestle-Aland 28th Edition had lost all of its double-brackets around words, left off an opening bracket at John 21:23, and introduced an undocumented textual change at James 5:10; and this was from their own text contained on their own website (http://www.nestle-aland.com/en/read-na28-online).
4. **Textual Parsing**

Several additional features have been added to the CNTR texts as aids to the reader that were not present in the original manuscripts. Displaying the CNTR collation of texts in an interlinear format with lexical entries, morphological parsing, Enhanced Strong’s Numbers, and English word glosses allows those who have no knowledge of Greek to not only observe the textual differences, but to understand what the variants mean in a way that has never been possible before. Here is an example of some of the additional features described in the subsections below:

<table>
<thead>
<tr>
<th>Word</th>
<th>Medieval Word</th>
<th>Medieval Lemma</th>
<th>ESN</th>
<th>Syn</th>
<th>Morph</th>
<th>Gloss</th>
<th>Punct</th>
<th>Caps</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΟΥΣΙΣ</td>
<td>ούτως</td>
<td>ούτως</td>
<td>37790</td>
<td>D.</td>
<td>......</td>
<td>thus</td>
<td>¶</td>
<td>P</td>
</tr>
<tr>
<td>ΓΑΡ</td>
<td>γάρ</td>
<td>γάρ</td>
<td>10630</td>
<td>CC</td>
<td>......</td>
<td>for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΗΓΑΠΗΣΕΝ</td>
<td>ἡγάπησεν</td>
<td>ἁγαπάω</td>
<td>250</td>
<td>VT</td>
<td>IAA3..S</td>
<td>loved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ο</td>
<td>ὁ</td>
<td>ὁ</td>
<td>35880</td>
<td>EA</td>
<td>.....NMS</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΘΣ</td>
<td>θεός</td>
<td>θεός</td>
<td>23160</td>
<td>N.</td>
<td>.....NMS</td>
<td>God</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>ΣΟ</td>
<td>τόν</td>
<td>ὁ</td>
<td>35880</td>
<td>EA</td>
<td>.....AMS</td>
<td>the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΚΟΜΟΝ</td>
<td>κόμον</td>
<td>κόσμος</td>
<td>28890</td>
<td>N.</td>
<td>.....AMS</td>
<td>world ,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΩΣΤΕ</td>
<td>ὠστε</td>
<td>ὠστε</td>
<td>56200</td>
<td>CS</td>
<td>......</td>
<td>so_that</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΣΟ</td>
<td>τόν</td>
<td>ὁ</td>
<td>35880</td>
<td>EA</td>
<td>.....AMS</td>
<td>the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΙΟΝ</td>
<td>Ἰόν</td>
<td>ἰός</td>
<td>52070</td>
<td>N.</td>
<td>.....AMS</td>
<td>Son</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>ΣΟ</td>
<td>τόν</td>
<td>ὁ</td>
<td>35880</td>
<td>EA</td>
<td>.....AMS</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΜΟΝΟΓΕΝΗ</td>
<td>μονογενής</td>
<td>μονογενής</td>
<td>34390</td>
<td>AR</td>
<td>.....AMS</td>
<td>only_begotten</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΕΔΩΚΕΝ</td>
<td>ἐδώκεν</td>
<td>δίδωμι</td>
<td>13250</td>
<td>VT</td>
<td>IAA3..S</td>
<td>he gave ,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΙΝΑ</td>
<td>ἵνα</td>
<td>ἰνα</td>
<td>24430</td>
<td>CS</td>
<td>......</td>
<td>in_order_that</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΠΑΣ</td>
<td>πᾶς</td>
<td>πᾶς</td>
<td>39560</td>
<td>RI</td>
<td>.....NMS</td>
<td>everyone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ο</td>
<td>ὁ</td>
<td>ὁ</td>
<td>35880</td>
<td>RD</td>
<td>.....NMS</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΠΙΤΣΕΥΝ</td>
<td>πιστεύων</td>
<td>πιστεύω</td>
<td>41000</td>
<td>VI</td>
<td>PPA.NMS</td>
<td>believing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΕΙΣ</td>
<td>εἰς</td>
<td>εἰς</td>
<td>15190</td>
<td>P.</td>
<td>......A..</td>
<td>in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΑΥΤΟΝ</td>
<td>αὐτόν</td>
<td>αὐτός</td>
<td>8460</td>
<td>RP</td>
<td>.....3AMS</td>
<td>him</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΜΗ</td>
<td>μη</td>
<td>μή</td>
<td>33610</td>
<td>D.</td>
<td>......</td>
<td>not</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΑΠΟΛΛΗΤΑΙ</td>
<td>ἀπόλλητα</td>
<td>ἀπάλλυμι</td>
<td>6220</td>
<td>VI</td>
<td>SAM3..S</td>
<td>may perish ,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΑΛΛΑ</td>
<td>ἀλλά</td>
<td>ἀλλά</td>
<td>2350</td>
<td>CC</td>
<td>......</td>
<td>but</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΕΧΗ</td>
<td>ἔχη</td>
<td>ἔχω</td>
<td>21920</td>
<td>VT</td>
<td>SPA3..S</td>
<td>may_be_having</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΖΩΗ</td>
<td>ζωή</td>
<td>ζωή</td>
<td>22220</td>
<td>N.</td>
<td>.....AFS</td>
<td>life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΑΙΩΝΙΟΝ</td>
<td>αἰώνιον</td>
<td>αἰώνιος</td>
<td>1660</td>
<td>AA</td>
<td>.....AFS</td>
<td>eternal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each word in the CNTR texts is accompanied by its lexeme and its morphology in order to uniquely identify each occurrence of a word in a text:

- If the lexeme were missing, it would not be possible to distinguish between identical word forms that come from different lexemes. (Is ΗΑΙΟΥ from ΗΑΙΑΣ or ΗΑΙΟΣ?)
• If the morphology were missing, it would not be possible to distinguish between different conjugations or declensions of a word that result in the same word form. (Is ΤΕΚΝΟΝ nominative or neuter?)
• If the word were missing, it could not be reconstructed from the lemma and the morphology alone, because of orthographical differences. (Was the original word ΔΑΛ or ΔΑΛΑ?)

Only the lexeme and the parsing, however, are necessary for assigning a unique “translational unit” to each entity, since the orthography of the underlying Greek word would be irrelevant.

Such additional features are sometimes subjective as there are often alternative interpretations, particularly with morphological parsing and word divisions, which correspondingly affect the meaning. Such a massive undertaking has never been done before, so please report any errors that you find that they might be duly corrected.

4.1 Lexicology

Lexicology is a part of linguistics that analyzes the properties of words and identifies the rules of their composition. Various attributes of words, lemmas, and lexemes are contained in the CNTR database allowing complex searches that were never before possible, across all CNTR witnesses. It should be noted that because of the extensiveness of the CNTR transcriptions, there are many words that were not covered by any previous lexicon, including the LSJ and the BDAG lexicons.

4.1.1 Words

A word is the smallest unit of syntax in a language that cannot be broken into smaller units capable of independent use. The CNTR texts employ the use of word divisions as a convenience to the reader, even though they were not present in the original autographs of the New Testament. There were no spaces between words in the original Greek manuscripts, for they were written scriptio continua meaning that all words were run together without any consideration of word boundaries. This was not especially difficult to read, however, as the syllables in the words could be sounded out phonetically and the end of the words could be identified by either a vowel or the consonants N, P, or C. Consider the following example in English:

ITISNOTANYNOREDIFFICU
LTFORYOUTOREADTHISTH
ANITWASFORTHEGREES

Someone may recognize unintended words in this text such as “red”, “tore”, and “twas”, but then the sentence would not correctly follow rules of grammar and the context would not make any sense. On rare occasions, however, there are situations where the divisions of the words are ambiguous. For example, an English phrase such as, “GODISNOWHERE” could be read as either “God is nowhere” or “God is now here” resulting in radically different meanings. Examples in the New Testament Greek include “ἈΛΛΟΙϹ” vs. “ἈΛΛΟΙϹ” (Mark 10:40), “ΟΙΔΑΜΕΝ” vs. “ΟΙΔΑ ΜΕΝ” (Rom. 7:14), “ΜΑΡΑΝΑ ΘΑ” vs. “ΜΑΡΑΝ ΑΘΑ” (1Cor. 16:22), and “ΟΜΟΛΟΓΟΥΜΕΝΟϹ” vs. “ΟΜΟΛΟΓΟΥΜΕΝ ΥϹ” (1Tim. 3:16). Translation of words should never be decided on whether the editor chose to divide a word or not, but by the surrounding context on a case by case basis. For example, the phrase “IAMGOINGTOBREAKFAST” could be mean you are about to eat your morning meal, or that you are going to eat for the first time after a period of fasting. The correct meaning, of course, would be determined by the surrounding context.
The CNTR texts follow the standard linguistics rule for word divisions that words should be divided into the smallest units possible that can stand alone as individual words without sacrificing any loss of meaning. One common mistake that some have made is to parse the Greek words down to their smallest possible units in a “concordant method” which sacrifices the meaning of compound words. For example, consider the English word “understand” where the words “under” and “stand” can stand alone separately, but when joined together have a completely different meaning (“to comprehend something” not “standing beneath something”). In this case, dividing the compound word into its apparent roots using a concordant method would clearly be invalid for it would result in a loss of meaning. Likewise, there are many examples where dividing a Greek compound word into its apparent roots would cause a loss of meaning, or worse, provide the wrong meaning. For example, if the word “ἀποκρινομαι” were divided into the words “ἀπο” (meaning “from”) and “κρινομαι” (meaning “to judge”) it would literally mean “to judge from” which is quite different than its actual meaning “to answer”.

On the other hand, there are many compound words which can be split apart without any significant loss of meaning. For example, the English word “homeschool” can be divided into the words “home” and “school” which still means the same thing in either representation. There are many examples where the editors of the modern critical texts have divided words in an inconsistent manner which do not necessarily have any effect on the meaning. Some of these words include: “ἈΝΑ ΜΕΣΩΝ”, “ἈΠ ΆΡΤΙ”, “ἈΡΑ ΓΕ”, “ΔΙΑ ΠΑΝΤΟΣ”, “ΔΙΑ ΤΙ”, “ΕΙ ΓΕ”, “ΕΚ ΠΕΡΙΣΣΟΥ”, “ΕΖ ΑΥΤΗΣ”, “ΙΝΑ ΤΙ”, “ΚΑΙ ΤΟΙ ΓΕ”, “ΜΗ ΓΕ”, “ΜΗ ΠΙΣΣ”, “ΜΗ ΠΟΤΕ”, “ΜΗ ΤΙ(Κ)”, “ΟΥΚ ΕΤΙ”, and “ΤΟΥΤ ΕΤΙ(Ν)”. A.T. Robertson points out that “no very clear principles in this matter can be set forth”. In many cases, the differences in word divisions are not meaningful, since there was no space in the Greek and thus there was never any difference to them! For now, the CNTR texts typically break these words according to the conventions of most of the modern critical texts, but this is entirely arbitrary and needs to be studied more thoroughly at a later date. Word divisions in non-conforming modern critical texts have been altered according to match this convention and the underscore character is used to show where the original word divisions were.

4.1.2 Lemmas

A lemma represents the abstract form of a word and is typically used as the headword to a lexical entry. Every word in the CNTR texts has been identified with its associated lemma so that its definition could be looked up in a Greek lexicon. The rules governing what constitutes a separate lexical entry vary between different Greek lexicons and are often applied inconsistently within the same lexicon. The CNTR lexicon attempts to adhere to a set of consistent rules which include some of the following conventions:

- Adverbs which were formed from neuter adjectives are given their own separate lexical entries. A.T. Robinson points out that grammarians have generally neglected the adverb and discusses the common formation of adverbs from neuter adjectives. Morphologically speaking, adverbs are not declinable and thus do not belong under their related adjective entries which are declined. (This is not the same as substantive adjectives which are equally declinable.)
- Comparatives and superlatives are given their own separate lexical entries. Morphologically speaking, suffixes such as “ετερος” or “τατος” are not declensions, nor are they especially different than other types of adjective suffixes such as “ητος”, “οιος”, “ινος”, or “ικος” which form other adjectives that are given separate lexical entries. Neither are comparatives and superlative forms predictable since other suffixes can be used to form them and some of the forms are quite irregular.
Diminutives are given their own separate lexical entries. There are several suffixes that are used to form diminutives and not every noun that ends in “ιον” is a diminutive. Swanson’s list of diminutives was consulted for establishing distinct lexical entries.

Unlike modern critical texts and lexicons which usually only show one sanitized form of a word, the CNTR database contains all forms of the words as they exist “in the wild.” Indeed, as A.T. Robertson states, “Among the strictly illiterate papyri writers one can find almost anything.” Separate lemmas were created for all word forms including alternative spellings and abbreviations. An alternative spelling is defined as word that is a homophone of another word in adherence to common phonetical substitutions such as “AI” = “E,” “EI” = “I,” “O” = “Ω,” “OI” = “Y,” “TT” = “N,” “MPI” = “T,” “Π” = “Φ,” “Ω” = “Θ,” etc. and also handles doubled consonants. Friedrich Blass states that there was “no one fixed orthography in existence, but writers fluctuated between the old historical spelling and a new phonetic manner of writing.” Separate lemmas were also created for the irregular principle parts of verbs and words derived from different etymologies. All words in the CNTR texts were then associated with these lemmas, including misspelled words and errors. A word was considered to be misspelled if it deviated beyond the common phonetical substitutions. A word was considered to be an error if it could not be determined what word it was trying to be.

In some cases, the alternative spelling of one word can be the same as a different word. For example, the two different words “ΚΑΙΝΟΣ” (meaning “new”) and “ΚΕΝΟΣ” (meaning “empty”) are both alternative spellings of each other according to the common phonetical substitution “AI” = “E,” and both spellings are used for both words in the early manuscripts (1Cor. 15:58, 2Cor. 6:1, Gal. 2:2, Eph. 4:5, Phil. 2:16, Col. 2:8, Jas. 2:20, 2Pet. 3:13, Rev. 2:17, Rev. 3:12, Rev. 21:1, 21:5). One approach to identifying the proper lemma would be to examine each word in context, and then choose the lemma with the definition that makes the most sense. But in this case, there are many places where the choice is ambiguous (Eph. 4:5, Col. 2:8, 2Pet. 3:13, Rev. 2:11). The CNTR’s approach, however, was to always choose the lemma whose preferred spelling most closely matches the word’s spelling (i.e. “ΚΑΙΝΟΣ” always means “new” and “ΚΕΝΟΣ” always means “empty”). This occasionally makes nonsensical readings which could have easily been explained by orthographical differences, but it preserves all the possible variant readings which was deemed to be more important. Other examples include: ΓΕΝΕΙΟΣIC VS. ΓΕΝΝΗΙΟΣIC (Matt. 1:18, Luke 1:14), ΙΔΙΗΤΕ VS. ΕΙΔΙΗΤΕ/ΕΙΔΙΗΤΑΙ (Matt. 9:6, 24:33, Mark 2:10, 13:14, Luke 5:24, 12:54, 21:20, 21:31), ΣΥΝΗΛΛΑΣΣΕΝ VS. ΣΥΝΗΛΛΑΣΣΕΝ (Acts 7:26), and ΤΡΙΙΟC VS. ΤΡΙΙΙIC (Matt. 26:34, 75, Mark 14:30, 72, Luke 22:34, 61, John 13:38, Acts 10:16, 11:10, 2Cor. 11:25, 12:8).

### 4.1.3 Lexemes

The lemmas were then grouped together into lexemes. A lexeme represents all word forms, alternative spellings, misspellings, and abbreviations which cover the same semantic domain(s) of meaning. For example, the following lemmas have been tied together as one lexeme:

<table>
<thead>
<tr>
<th>Lemma</th>
<th>Word</th>
<th>Count</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΙΕΡΟΣΟΛΥΜΑ</td>
<td>ΙΕΡΟΣΟΛΥΜΑ</td>
<td>198</td>
<td>Canonical</td>
</tr>
<tr>
<td></td>
<td>ΙΕΡΟΣΟΛΥΜΟΙΙΙ</td>
<td>85</td>
<td>Canonical</td>
</tr>
<tr>
<td></td>
<td>ΙΕΡΟΣΟΛΥΜΩΙΝ</td>
<td>61</td>
<td>Canonical</td>
</tr>
<tr>
<td></td>
<td>ΙΕΙΕΡΟΣΟΛΥΜΑ</td>
<td>2</td>
<td>Alternative spelling</td>
</tr>
<tr>
<td></td>
<td>ΕΠΙΕΡΟΣΟΛΥΜΑ</td>
<td>2</td>
<td>Alternative spelling</td>
</tr>
<tr>
<td></td>
<td>ΙΕΡΟΣΟΛΑΜΑ</td>
<td>1</td>
<td>Misspelling</td>
</tr>
<tr>
<td></td>
<td>ΙΕΡΟΣΟΛΟΜΟΙΙΙ</td>
<td>1</td>
<td>Misspelling</td>
</tr>
<tr>
<td></td>
<td>ΙΕΡΟΣΟΛΥΣΟΛΥΜΑ</td>
<td>1</td>
<td>Misspelling</td>
</tr>
<tr>
<td></td>
<td>ΙΕΡΟΥΣΑΛΥΜΗΜΑ</td>
<td>1</td>
<td>Misspelling</td>
</tr>
<tr>
<td></td>
<td>ΡΟΣΟΛΥΜΑ</td>
<td>1</td>
<td>Misspelling</td>
</tr>
</tbody>
</table>
In this example, four distinct lemmas have been grouped together as one lexeme that all cover the same range of meanings. There can also be misspellings of alternative spellings, but they were not present in this example. The various lemmas grouped together in a lexeme could come from different etymologies as long as the semantic domain(s) of meaning is the same.

Again, it should be stressed that there was not necessarily one correct form of a word, and thus it is not necessary to designate one particular lemma to represent the entire lexeme. A.T. Roberston states, “There has never been a fixed orthography for the Greek tongue at any stage of its history.” The frequency count showing the number of occurrences among the early manuscripts was used to help determine the difference between the preferred forms, alternative spellings, and misspellings. This does not mean that any particular word form was necessarily “wrong”, but it does indicate the most popular forms of usage.

4.1.4 Enhanced Strong’s Numbers

While any numbering system could have been used to represent the lexemes, the CNTR has created a system using Enhanced Strong’s Numbers (ESN) to represent the meanings of the words in the CNTR texts. Although the definitions from the Strong’s Exhaustive Concordance are inadequate for scholarly use for a number of reasons, the Strong’s numbering system itself has become the de facto standard and is extensively used in many other reference works and Bible programs. Thus, in order to maintain some “backward compatibility” with Strong’s numbers, the ESN’s were created by modifying the Strong’s numbering system in the following manner:

1. Numbers that were assigned to redundant or derivative forms of the same lexeme were eliminated and replaced by the number of the preferred lexical form.

<table>
<thead>
<tr>
<th>Number</th>
<th>Lemma</th>
<th>Eliminated Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>ΝΙΟΙΟϹ</td>
<td>39</td>
</tr>
<tr>
<td>71</td>
<td>ΑΓω</td>
<td>33</td>
</tr>
<tr>
<td>150</td>
<td>ΑΙϹΧΡΟϹ</td>
<td>149</td>
</tr>
<tr>
<td>159</td>
<td>ΑΙΤΙΟϹ</td>
<td>158</td>
</tr>
<tr>
<td>217</td>
<td>ΑΑΑϹ</td>
<td>251</td>
</tr>
<tr>
<td>483</td>
<td>ΑΝΤΙΛΕΓω</td>
<td>471</td>
</tr>
<tr>
<td>568</td>
<td>ΑΠΕΧω</td>
<td>566, 567</td>
</tr>
<tr>
<td>681</td>
<td>ΑΡΤω</td>
<td>680</td>
</tr>
<tr>
<td>757</td>
<td>ΑΡΧω</td>
<td>756</td>
</tr>
<tr>
<td>846</td>
<td>ΑΥΤΟϹ</td>
<td>848</td>
</tr>
<tr>
<td>872</td>
<td>ΑΦΟΡΑΩ</td>
<td>542</td>
</tr>
<tr>
<td>934</td>
<td>ΒΑϹΙΑΙΟϹ</td>
<td>933</td>
</tr>
<tr>
<td>1182</td>
<td>ΔΕΚΑΤΟϹ</td>
<td>1181</td>
</tr>
<tr>
<td>1210</td>
<td>ΔΕω</td>
<td>1163</td>
</tr>
<tr>
<td>1427</td>
<td>ΔΕΚΑΔΑΥΟ</td>
<td>1177</td>
</tr>
<tr>
<td>1473</td>
<td>ΕΓω</td>
<td>1691, 1698, 1700, 3165, 3427, 3450, 2248, 2249, 2254, 2257</td>
</tr>
</tbody>
</table>
2. Numbers that were assigned to lemmas in improper lexical form were updated if there was not an associated number for the proper lexical form.

<table>
<thead>
<tr>
<th>Number</th>
<th>Lemma</th>
</tr>
</thead>
<tbody>
<tr>
<td>5504</td>
<td>εχθεσ</td>
</tr>
<tr>
<td>3062</td>
<td>ΛΟΙΠΟΣ</td>
</tr>
<tr>
<td>4287</td>
<td>ΠΡΟΘΕΣΜΙΑ</td>
</tr>
<tr>
<td>4992</td>
<td>ΣΩΤΗΡΙΟΣ</td>
</tr>
</tbody>
</table>
3. Numbers that were assigned to compound words and phrases were eliminated if they were separated according to the CNTR word division rules. Some of these entries, however, will be retained in the CNTR lexicon as “see” entries pointing to the separated words.

<table>
<thead>
<tr>
<th>Number</th>
<th>Lemma</th>
<th>Substituted Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>534</td>
<td>ΑΠΑΡΤΙ</td>
<td>575, 737</td>
</tr>
<tr>
<td>697</td>
<td>ΑΡΕΙΟΣ ΠΑΓΟΣ</td>
<td>6965, 3803.5</td>
</tr>
<tr>
<td>1275</td>
<td>ΔΙΑ ΠΙΝΤΟΣ</td>
<td>1223, 3956</td>
</tr>
<tr>
<td>1302</td>
<td>ΔΙΑΤΙ</td>
<td>1223, 5101</td>
</tr>
<tr>
<td>1489</td>
<td>ΕΙΓΕ</td>
<td>1487, 1065</td>
</tr>
<tr>
<td>1499</td>
<td>ΕΙ ΚΑΙ</td>
<td>1487, 2532</td>
</tr>
<tr>
<td>1508</td>
<td>ΕΙ ΜΗ</td>
<td>1487, 3361</td>
</tr>
<tr>
<td>1509</td>
<td>ΕΙ ΜΗΤΙ</td>
<td>1487, 3385</td>
</tr>
<tr>
<td>1513</td>
<td>ΕΙ ΠΙΣΚ</td>
<td>1487, 4458</td>
</tr>
<tr>
<td>1527</td>
<td>ΕΙΣ ΚΑΘ ΕΙΣ</td>
<td>1520, 2596, 1520</td>
</tr>
<tr>
<td>1536</td>
<td>ΕΙ ΤΗ</td>
<td>1487, 5100</td>
</tr>
<tr>
<td>1768</td>
<td>ΕΝΝΕΝΚΟΝΤΑΕΝΝΕΑ</td>
<td>1752.5, 1767</td>
</tr>
<tr>
<td>1888</td>
<td>ΕΙΤΙ ΑΥΤΟΦΥΡΟΣ</td>
<td>1909, 847.5</td>
</tr>
<tr>
<td>2444</td>
<td>ΙΝΑΤΙ</td>
<td>2443, 5101</td>
</tr>
<tr>
<td>2534</td>
<td>ΚΑΙ ΓΕ</td>
<td>2532, 1065</td>
</tr>
<tr>
<td>2568</td>
<td>ΚΑΛΟΙ ΛΙΜΕΝΕΣ</td>
<td>2570, 3040</td>
</tr>
<tr>
<td>2651</td>
<td>ΚΑΤΑΜΟΝΑΣ</td>
<td>2596, 3441</td>
</tr>
<tr>
<td>3362</td>
<td>ΕΑΝ ΜΗ</td>
<td>1437, 3361</td>
</tr>
<tr>
<td>3363</td>
<td>ΙΝΑ ΜΗ</td>
<td>2443, 3361</td>
</tr>
<tr>
<td>3364</td>
<td>ΟΥ ΜΗ</td>
<td>3756, 3361</td>
</tr>
<tr>
<td>3378</td>
<td>ΜΗ ΟΥΚ</td>
<td>3361, 3756</td>
</tr>
<tr>
<td>3387</td>
<td>ΜΗΤΙΣ</td>
<td>3361, 5100</td>
</tr>
<tr>
<td>3569</td>
<td>ΤΑ ΝΥΝ</td>
<td>3588, 3568</td>
</tr>
<tr>
<td>3603</td>
<td>Ο ΕΣΤΙ</td>
<td>3739, 1510</td>
</tr>
<tr>
<td>3381</td>
<td>ΜΗ ΠΙΣΚ</td>
<td>3361, 4459</td>
</tr>
<tr>
<td>3386</td>
<td>ΜΗΤΙ ΓΕ</td>
<td>3385, 1065</td>
</tr>
<tr>
<td>3801</td>
<td>Ο ΩΝ ΚΑΙ Ο ΗΝ ΚΑΙ Ο ΕΡΧΟΜΕΝΟΣ</td>
<td>3588, 1510, 2532, 3588, 1510, 2532, 3588, 2064</td>
</tr>
<tr>
<td>5123</td>
<td>ΤΟΥΤ ΕΣΤΙΝ</td>
<td>3778, 1510</td>
</tr>
<tr>
<td>5516</td>
<td>ΧΖΩ</td>
<td>1812, 1835, 1803</td>
</tr>
</tbody>
</table>

4. Numbers that were assigned to words that were not used in the CNTR texts were eliminated. The numbers 2717 and 3203-3302 were eliminated because they were not originally used in the Strong’s Greek Dictionary.

<table>
<thead>
<tr>
<th>Number</th>
<th>Lemma</th>
</tr>
</thead>
<tbody>
<tr>
<td>1418</td>
<td>ΔΥΣ</td>
</tr>
<tr>
<td>1970</td>
<td>ΕΠΙΠΝΙΓΩ</td>
</tr>
<tr>
<td>2312'</td>
<td>ΘΕΟΛΟΓΟΣ</td>
</tr>
<tr>
<td>2526'</td>
<td>ΚΑΘΟΛΙΚΟΣ</td>
</tr>
<tr>
<td>2858</td>
<td>ΚΟΛΑΣΣΑΕΥΣ</td>
</tr>
<tr>
<td>2997</td>
<td>ΛΑΣΧΩ</td>
</tr>
<tr>
<td>3390</td>
<td>ΜΗΤΡΟΠΟΛΙΣ</td>
</tr>
<tr>
<td>3505</td>
<td>ΝΕΡΩΝ</td>
</tr>
<tr>
<td>3620</td>
<td>ΟΙΚΟΔΟΜΙΑ</td>
</tr>
<tr>
<td>3818</td>
<td>ΠΑΚΑΤΙΑΝΗ</td>
</tr>
<tr>
<td>4452</td>
<td>ΠΙΩ</td>
</tr>
<tr>
<td>5104</td>
<td>ΤΟΙ</td>
</tr>
</tbody>
</table>
5. After this, almost 400 new numbers were assigned to words used in the CNTR texts that were not found in the Strong’s Greek Dictionary. Others have dealt with this problem by placing all of the words at the end, giving them higher numbers in a specific range, but this places them out of sorted order and any new words added in the future would continue to be placed out of order. To remedy this problem, the CNTR has chosen to merely add another digit to the right of all Strong’s numbers. For example, Strong’s number 2424 for ἰησοῦς becomes the number 24240. By making use of this additional digit, new lexical entries are then inserted into the correct places while keeping Strong’s sorted order. For example, three new words have been inserted between the existing Strong’s words 647 ἈΠΟΣΤΑΣΙΟΝ and 648 ἈΠΟΣΤΕΓΑΖΩ as follows:

<table>
<thead>
<tr>
<th>Number</th>
<th>Lemma</th>
</tr>
</thead>
<tbody>
<tr>
<td>6470</td>
<td>ἈΠΟΣΤΑΣΙΟΝ</td>
</tr>
<tr>
<td>6473</td>
<td>ἈΠΟΣΤΑΣΙΟΝ</td>
</tr>
<tr>
<td>6475</td>
<td>ἈΠΟΣΤΑΣΙΟΝ</td>
</tr>
<tr>
<td>6477</td>
<td>ἈΠΟΣΤΑΣΙΟΝ</td>
</tr>
<tr>
<td>6480</td>
<td>ἈΠΟΣΤΕΓΑΖΩ</td>
</tr>
</tbody>
</table>

The words could alternatively be displayed by computer programs using a decimal point: 647, 647.3, 647.5, 647.7, 648.

It should be pointed out that not all lemmas will be in sorted order using this scheme since different orthographical forms of lemmas of one lexeme may result in different alphabetical positions. There were also several entries in Strong’s that were not numbered in alphabetical order to begin with (2858, 2994, 3451, 4211, 4696, 3569, 5506). The number itself is not especially important as it merely represents a lexical unit of meaning, so the fact that most of the lemmas associated with the number will be in sorted order is an incidental advantage.

4.2 Morphology and Syntax

Morphology is a part of linguistics that studies patterns of word-formation and attempts to formulate rules that model the implementation of a language. There are several different morphological schemes with different grammatical categories that have been applied to the Greek New Testament over the years. And within any given scheme, there are many word forms that are ambiguous which can be parsed in multiple ways, resulting in more than one possible meaning. The general approach of the CNTR parsing scheme is to keep the syntactical, morphological, and lexical attributes of a word separate. For example, the lexical attributes of a word (such as whether a word is a number, abbreviation, indeclinable, diminutive, etc.) do not change depending on a word’s particular occurrence in a text and thus do not need to be encoded with the morphology for each word. Such lexical elements could be displayed with the morphology in computer programs, but in that case, they merely need to be retrieved from the lexicon. Likewise, the syntactical attributes of a word related to sentence structure are also distinct from the morphological form of a word and are kept separately. Ultimately, other parsing scheme’s such as Robinson’s and Tauber’s can be reconstructed from the morphological parsing system used here without data loss, and indeed, both of them have been compared with the CNTR’s texts resulting in greater accuracy.

The CNTR texts are encoded with a parsing scheme where the morphological form of each Greek word in the New Testament is represented by a nine-character code:
The syntactic function of a word, of course, determines which of the other morphological attributes may apply. Closed function morphemes such as determiners, pronouns, and conjunctions have detailed grammatical subtypes that are different from open content morphemes such as nouns, adjectives, adverbs, and verbs which could be categorized by semantic domains of meaning obtainable from the lexicon.¹⁶
The CNTR parsing scheme offers greater linguistical distinctions that are not found in other parsing schemes:

- The substantive noun subtype is used for marking adjectives that are used substantively. Sometimes this can lend itself to a difference in translation. For example, “ἀμαρτώλος” is usually translated as “sinful” when used as an adjective and “sinner” when used as a substantive adjective (instead of “sinful [one]”). Likewise, the predicate noun subtype is used for marking predicate adjectives for similar reasons.

- The ascriptive adjective subtype is used for marking descriptive adjectives that may occur either before or after the noun they modify. The restrictive adjective subtype is used for distinguishing the article/noun/article/adjunctive pattern which could be translated either as a substantive (i.e. “Jesus, the Nazarene”) or as a regular adjective (i.e. “the Nazarene”).

- Determiners are a relatively new concept in the field of linguistics, but are significantly different than adjectives in both syntax and meaning. Concerning syntax, determiners can occupy syntactical positions that do not apply to descriptive adjectives. For example, you could say, “some happy people”, but not “happy some people”. Concerning meaning, determiners are typically not gradable and cannot form comparatives or superlatives. For example, you could say “very happy”, “happier”, or happiest”, but not “very some”, “somer” or “somest”.

- Determiners are also distinct from pronouns in that a word normally used as a determiner only becomes a pronoun when it is used substantively. For example, the word “οὔτος” is always marked as a demonstrative pronoun in many parsing schemes, but actually it is only a demonstrative pronoun when it is used substantively (i.e. “This is where I live.”) and is a demonstrative determiner when it modifies a noun (i.e. “I live in this house.”).

- The correlative adverb subtype is used for marking the head of paired correlative conjunctions such as “either...or”, “both...and”, etc. This concept is based on some general syntactical analysis in linguistics along with the observation that the words that serve as the head of correlative conjunctions are normally considered adverbs.

- The transitive verb subtype is used to mark verbs that have an explicit direct object (normally indicated by the accusative case) or could be a clause. The direct object must exist syntactically, supplied ideas do not count. Passive verbs are normally marked as intransitive unless an associated direct object is present.

- The modal verb subtype is used for marking verbs that are coupled with another infinitive verb. This is not necessarily how modality is traditionally understood linguistically, although there is a great amount of overlap between the concepts.

For those who prefer a simpler parsing system, it is quite easy to convert these codes to broader parsing categories. For example, if someone preferred to consider all of the determiners to be adjectives, they can easily change all of the different “E” codes to the single “A” code, but the converse is not true – it is a one-way street. It is easy to lose information and reduce the CNTR codes to Robinson’s or Tauber’s parsing system, but their codes cannot be converted to this parsing system because they lack the necessary granularity of information.
Here are some examples of this morphological parsing system:

<table>
<thead>
<tr>
<th>Word</th>
<th>Lemma</th>
<th>Syn</th>
<th>Morph</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἄγαπας</td>
<td>αγαφ</td>
<td>N.</td>
<td>....DFP</td>
<td>dative feminine singular noun</td>
</tr>
<tr>
<td>ἄγιος</td>
<td>αγιοσ</td>
<td>A.</td>
<td>....GNS</td>
<td>genitive neuter singular adjective</td>
</tr>
<tr>
<td>ο</td>
<td>ο</td>
<td>EA</td>
<td>....NMS</td>
<td>nominative masculine singular definite article determiner</td>
</tr>
<tr>
<td>ΠΑΝΤΑΣ</td>
<td>ΠΑΣ</td>
<td>EQ</td>
<td>....AMP</td>
<td>accusative masculine plural quantifier determiner</td>
</tr>
<tr>
<td>ἐμε</td>
<td>ἐμω</td>
<td>RF</td>
<td>....IA3, S</td>
<td>first person accusative singular personal pronoun</td>
</tr>
<tr>
<td>ἐμὰυτος</td>
<td>ἐμαυτοσ</td>
<td>RR</td>
<td>....IGMS</td>
<td>genitive masculine singular first person reflexive pronoun</td>
</tr>
<tr>
<td>ἡλθον</td>
<td>ερχομαι</td>
<td>V.</td>
<td>IAA3, P</td>
<td>indicative aorist active third person plural verb</td>
</tr>
<tr>
<td>λεγων</td>
<td>λεγω</td>
<td>V.</td>
<td>PFA,NMS</td>
<td>present active nominative masculine singular participle</td>
</tr>
<tr>
<td>εκ</td>
<td>εκ</td>
<td>P.</td>
<td>....G...</td>
<td>preposition (used with genitive case)</td>
</tr>
</tbody>
</table>

Words formed by krasis were parsed primarily to reflect the force of the second word. For example, “καγω” is considered a type of personal pronoun rather than a type of conjunction. Neuter adjectives which share an adverbial form are parsed as adjectives if they are preceded by an article or preposition.

There are also orthographical considerations similar to those previously discussed regarding words that are homophones. The issue this time is not in identifying the lemma, but identifying the correct morphological form of the word. For example, there are hundreds of verbs with the ending of “ται” or “τε” containing the common phonetical substitution “αι” = “ε” that are used interchangeably. While the context may indicate a preference between a third person singular word or a second person plural word, there are occasions where the choice is ambiguous. The CNTR’s approach was always to choose the morphological form according to the preferred spelling (i.e. “ται” is third person singular and “τε” is second person plural). Again, this occasionally makes nonsensical readings which could have easily been explained by orthographical differences, but it preserves all the possible variant readings which was deemed to be more important.

### 4.3 English Glosses

Each Greek word in the CNTR texts has been associated with the closest equivalent English word(s) according to its usage and context, essentially providing an English/Greek interlinear for all CNTR texts. In some Bible interlinear programs, only one general gloss is assigned to each lexical entry, but the CNTR assigns a separate gloss to each different semantic domain of a lexical entry. It is a classic mistake by novice students to assume that every Greek word can be represented by the meaning of a single English word. Such a “concordant method” often fails to acknowledge the diverse wealth of meanings that can be contained in a single homonym. For example, what single meaning would you ascribe to the word “draft”? Does it involve a leaky door, military conscription, or a preliminary writing? Similarly, in Greek the word “κοσμοσ” could mean “adornment”, “world”, or “universe” which cover three different semantic domains of meaning.

On the other hand, some Bible interlinear programs and translations use multiple synonyms for a single word in an inconsistent manner, even when it contains the same usage and meaning. They just use what ever word sounds good in one particular context without considering what words they previously used in the exact same context. For example, the King James Bible translates “ΘΛΙΨΙΣ” as “afflicted”, “affliction”, “anguish”, “burdened”, “persecution”, “tribulation”, and “trouble”, when one or two glosses could have sufficed for all of them. The BDAG seems to be guilty of this problem as well as it often invents numerous unnecessary subcategories for a word that really only has a few semantic domains of meaning. For example, the entry for “ΠΡΟΦΗΤΗΣ” has six major categories (which probably should have been subcategories or examples of usage) covering a full page of material when in all cases the word
could simply be translated as “prophet”. Many other large BDAG entries could be reduced to just two or three different semantic domains of meaning.23

To address both these issues, the CNTR has selected English glosses according to the following principles:

1. Identify the fewest number of unique semantic domains possible for each Greek word. These typically correspond to the top-level meanings of a normal lexical entry. For example, the word “κόσμος” would have three different semantic domains, and “προφήτης” would only have one semantic domain as cited in the examples above.
2. The word form of each English gloss should reflect the same part of speech as the associated Greek word. In other words, Greek verbs should be rendered in English verbs, adjectives should be rendered as adjectives, adverbs should be rendered as adverbs, etc.
3. Reuse the same English components (roots, prefixes, and suffixes) to correspond to the equivalent Greek components whenever possible. For example, “κηρυκτία” and “κηρύγμα” are associated with “proclaim”, “proclaimer”, and “proclamation” respectively.
4. Assign different English glosses to different Greek words whenever possible, as long as there could be a discernable difference in meaning. For example, “κειμαι” is associated with “lie”, while “κατακειμαι” is associated with “lie down” even though “down” is seemingly redundant to us in English.
5. If two different Greek words are synonyms in meaning, associate them with two equivalent English synonyms whenever possible. For example, “βρεφός” is associated with “baby” and “παιδιον” is associated with “infant”, even though they are essentially interchangeable in both Greek and English. This then makes little difference in meaning, but can still indicate that a different Greek word was used by looking at the glosses.

English glosses then are consistently assigned to each Greek word so that the same Greek word is always used to represent the same semantic domain of meaning according to its usage and context. These glosses are also directly tied to the CNTR lexicon, typically representing the top-level meanings for each lexical entry. Subcategories showing the different senses and usages of a word within each semantic domain of meaning may be further delineated. Reliance on such glosses, of course, can lead to a very stilted translation, but are still adequate for conveying the correct semantic domains of meanings for most words.

4.4 Capitalization

As previously discussed, the original autographs of the New Testament did not contain any capitalized words because there was no such thing as uppercase and lowercase letters. However, since many desire the ability to include capitalization in reader’s versions of their texts, the following codes were introduced to CNTR critical texts to indicate possible locations for customized capitalization schemes:

- L – lexical entry capitalized
- W – proper noun
- N – named entity
- V – vocative title
- G – reference to deity
- h – partial word capitalized
- n – named but not proper name
The lowercase letters mark other significant places where the words are not normally capitalized.

4.5 Versification

The CNTR texts follow the definitive standard in versification for the New Testament which was first introduced by Robert Estienne (also known as Roberti Stephani and Robertus Stephanus) in his 1551 publication of the Greek New Testament.24 His son Henry wrote of this endeavor: “As the books of the New Testament has been already divided into the sections (themata) which we call chapters, he himself subdivided them into those smaller sections, called by an appellation more approved of by others than by himself, versicles....He accomplished this division of each chapter on his journey from Paris to Lyons, and the greater part of it inter equitandum.”25 Some jest that the bumpiness of riding on horseback surely caused his pen to jerk resulting in some very awkward verse boundaries, but a more natural inference of “inter equitandum” is that the work was done while resting at inns along the road.26 The chapter divisions previously mentioned had been established in the 13th century by Stephen Langton, Archbishop of Canterbury.27

Bibles today attempt to follow Estienne’s versification scheme for the most part, yet all of them deviate from it in various places. The first complete Bible in English to contain verses was the Geneva Bible, for example, and it too strays from Estienne’s standard in several places. There is not any consistency to these deviations as every Bible translation seems to make up a few new verse boundaries of its own. Different electronic editions of the same text often contain different versification schemes depending on which software it was derived from. While differences in versification do not diminish the text, it has caused much confusion over the years and makes comparisons of verses among different texts somewhat problematic for Bible programs.

The methodology used by the CNTR for recovering the verse boundaries originally specified by Estienne involved constructing a master list of discrepancies between the verse boundaries used in various Bibles. These discrepancies were then resolved by consulting an original copy of Estienne’s 1551 text on reserve in the Special Collections at the University of Chicago. Out of all of the Bibles examined, the Nestle-Aland text was the closest in adhering to Estienne’s versification standard: “The verse divisions...with a few exceptions, are identical with the verse divisions first introduced by Stephanus in his 1551 edition of the Greek New Testament, and are widely adopted in modern editions.”28 Yet, even the Nestle-Aland text still deviated from Estienne’s standard in the following verses: Matt. 12:49, Luke 24:45, Acts 2:47, 1 Cor. 7:33, Eph. 5:13, and Rev. 6:1. There was also an instance where the text of the verses was switched at Phil 1:16-17.

The implementation of Estienne’s versification scheme, however, was not always straightforward. When a variant reading not present in Estienne’s text fell on a verse boundary, for example, it could be placed either at the end of the previous verse or at the beginning of the next verse. In such cases, the versification of the Nestle-Aland text was followed since it carried the honor of being the closest to
adhere to Estienne’s standard. Estienne’s 1551 text also contained several printing errata which have been corrected as follows:

- Matthew 12:50 was added where an indentation in the Latin text indicated a new verse, but the number was missing as the Greek did not have a corresponding indentation.
- Mark 11:33 was realigned to the text indentation as it had been placed too low.
- Luke 16:31 was added where an indentation indicated a new verse but the number was missing.
- John 4:53 had been repeated twice and thus the second reference was renumbered as 4:54.
- John 13:38 had been skipped and thus 13:39 was renumbered as 13:38.
- Acts 23:25-26 had shared one line and were split into two separate verses.
- Acts 23:35 was added where an indentation indicated a new verse, but the number was missing.
- Acts 24:19-20 had shared one line and so 24:21-28 were renumbered 24:20-27.
- 1 Thes. 2:12 was realigned to the text indentation as it had been placed one line too low.
- 2 John 1:12 had been juxtaposed one line below 1:11 and so it was realigned to the indentation and 1:13 and 1:14 were renumbered as 1:12 and 1:13 leaving a total of 13 verses.

Differences in verse divisions found in the modern critical texts have been altered to conform to Estienne’s standard for use in the CNTR project.

There, of course, were no verse numbers in the original Greek manuscripts. Verse numbers are merely supplied here for reference and should never be construed to have any relationship with the beginning of sentences or phrases. “The Stephanic verses have met with bitter criticism because of the fact that they break the text into fragments, the division often coming in the middle of the sentence, instead of forming it into convenient and logical paragraphs, an arrangement which has seldom found favor. But their utility for reference outweighs their disadvantage.”29 Because of this, the careful reader should always consider the verses before and after any reference to obtain the proper context.

A verse is only included in a CNTR text where there is a least one character present in the extant manuscript (even if it is partially damaged). An explicit verse omission occurs when the previous and following verses run together consecutively and the words for the verse in-between are missing. The following verses do not yet appear in any Greek extant manuscript found before the terminus ad quem: Mark 15:28, Acts 8:37, 24:7, 28:29, Rom. 16:24.

---

5 A. E. Knoch, “The Concordant Method”, Concordant Greek Text, Concordant Publishing Concern: 1975; http://www.scripture4all.org/help/isa2/Articles/The_Concordant_Method/The_Concordant_Method.htm, accessed April 14, 2017. The Concordant Method is not without value, however, as its glosses for the root meanings in some cases may better express how Greeks actually thought about the meaning of some words that are not easily translated into English.
7 For example, for the conventions listed, the BDAG sometimes has a separate lexical entry, sometimes tucks the category under an existing lexical entry, and sometimes has a “see” entry – all in an inconsistent manner. Other lexicons usually fare worse.
21 Exceptions were made for relatives pronouns affected by attraction.
23 See entries such as “ΔΥΝΑΜΙϹ”, “ΟΙϹΟϹ”, “ϹΥϹΑΓΩ”, “ΤΕϹΝΟΝ”.
5. Data Analysis

All data used in the CNTR project (metadata, transcriptions, collation, lexical, morphology, syntax, etc.) has been incorporated into an SQL accessible relational database, enabling advanced data analysis that has never before been possible. Such data analysis has enabled several new innovations to advance the field of scientific textual criticism. The CNTR data is not tied to any particular scientific approach as many different kinds of data analysis can benefit from accessing the CNTR database.

5.1 Collation Alignment

The CNTR collation of early manuscripts was generated to alleviate the myriad of problems that stem from using apparatuses commonly found in the modern critical texts. The CNTR collation currently contains a complete set of variants for the class 1 and class 2 data (along with several modern critical texts for comparison) showing orthographical differences, scribal corrections, and the condition of characters, while not being tied to any particular base text. Each uncollapsed column in the CNTR collation represents a distinct morphology or word form. All the words in a column are homophones of each other according to a standard set of phonetic rules, ignoring any orthographical differences such as elision and movable nu or sigma. The set of phonetic rules include the following substitutions as prevalent sound-alikes:

\[
\begin{align*}
\alpha &= \lambda \lambda, & \beta &= \beta \beta, & \Delta &= \Delta \Delta, & \Gamma &= \Gamma \Gamma, & \Theta &= \Theta \Theta, & \kappa &= \kappa \kappa, & \lambda &= \lambda \lambda, & M &= \mathbb{M} \mathbb{M}, & N &= \mathbb{N} \mathbb{N}, & \Pi &= \Pi \Pi, & P &= \Pi \Pi, & C &= \mathbb{C} \mathbb{C}, & T &= \mathcal{T} \mathcal{T}, \\
\Gamma &= \kappa, & \Gamma &= \chi, & \kappa &= \chi, & \Delta &= \Theta, & \Delta &= \Theta, & \theta &= \Theta, & \zeta &= \mathbb{C}, & \mu &= \mathbb{N}, & \Pi &= \phi, \\
\Pi &= \zeta, & T \Theta &= \mathcal{T} \mathcal{T}, & M \Pi &= \Pi \Pi, & M \Upsilon &= \Upsilon \Upsilon, & N \beta &= \beta \beta, & N \gamma &= \gamma \gamma, & N \kappa &= \kappa \kappa, & N \lambda &= \lambda \lambda, & N \mu &= \mathbb{M} \mathbb{M}, & N \zeta &= \zeta \zeta, & N \Pi &= \Pi \Pi, \\
N \chi &= \chi \chi, & N \rho &= \mathbb{M} \mathbb{M}, & N \Upsilon &= \Upsilon \Upsilon, & N \phi &= \phi \phi, & N \chi &= \chi \chi, & N \mu &= \mathbb{C} \mathbb{C}, & N \zeta &= \mathbb{C} \mathbb{C}, & N \zeta &= \zeta.
\end{align*}
\]

Words that deviate from these phonetic rules but belong to the same lexeme are considered to be separate lexical forms and therefore placed in a separate column. Errant letters or misspelled words that deviate from these phonetic rules, but could be no other plausible word, are placed in the intended column and marked as errors.

The collation was generated by using three different computer algorithms. First, the maximum text was created as a templet containing all known variants for each verse by using a recursive longest common sequence first algorithm without reference to any base text. Each individual witness was then aligned to this templet using a non-recursive longest common sequence algorithm considering multiple sequences. By utilizing the CNTR parsing information, a separate column was thus generated for each word with distinct morphology without regards to orthographical differences. The resulting column information was then saved in the database and then manually adjusted to minimize the number of variant units. (There are often several different ways that variants can be aligned in a given verse.) The collation displayed on the CNTR website is then shown in collapsed mode which was achieved by using a gap-reducing algorithm that eliminates space and attempts to align words with similar form or meaning even though they may have different morphologies.

Any statistical processing of columns, however, is done with the data in uncollapsed mode. One such application is the autoparse program which will automatically parse any new Greek manuscript by aligning it with the existing collation and obtaining the associated lexical, syntactical, and morphological information from the appropriate column according to its context. If the text to be parsed contains a new variant reading, then those words are added to the appropriate place in the collation and flagged in the output so that the associated parsing data can be added manually. Another application is the ability to
compare any two Greek texts for differences, either word for word or by variant units, which automatically accounts for any orthographical differences.

5.2 Computer-Generated Texts

Another application of a scientific approach to textual criticism, is the ability to produce a computer-generated Greek New Testament text based on a data-driven statistical model using the CNTR collation of early manuscripts. There are at least six objective external criteria which can be used to scientifically determine the most likely reading of the original autographs:

1. Date – the date of the texts can reasonably be determined through the field of paleography and other methods.
2. Reliability rating – the relative statistical reliability of a text can be precisely determined based on its adherence to the textual corpus.
3. Data class – the transmission format of the text can correlate to the expected reliability of the text.
4. Scribal effort – the amount of care that a scribe used may show a relationship to the intended reliability of the text.
5. Textual affinity – the textual relationships of genealogical ancestry can determine lineages of textual transmission.
6. Geographical zone – the geographic origin of a manuscript offers clues to the history of its textual transmission.

Each variant unit in the text can be given a score indicating its probability of occurrence based on a formula using these six objective criteria. Obviously, the date should be weighted heavily in the equation since it is a prima facie witness to the text of the manuscript at a given point in time. The reliability rating, data class, and scribal effort factors in the equation could be weighted to express aspects of textual accuracy. The textual affinity (based on stemmatics) and geographical region factors in the equation could be weighted to express the uniqueness of the witnesses. (In other words, a close copy of an earlier copy from the same geographical area does not get to vote twice). A simplistic formula using values from the CNTR database might look something like this:

\[
\text{weight} = \frac{\sum_{i=1}^{n} (\text{uniqueness} \times \text{reliability} \times \text{earliness})}{\text{totalWitnesses}}
\]

where,

\[
\text{uniqueness} = \frac{1}{\text{uniqueZones} \times \text{zoneWitnesses}} - \text{affinity}
\]

\[
\text{reliability} = \text{corpusRating} \times \frac{5 - \text{class}}{4} \times \frac{5 - \text{effort}}{4}
\]

\[
\text{earliness} = \frac{400 - \frac{\text{date2} - \text{date1}}{2}}{400 - \text{earliestDate}}
\]

The weight of each individual witness has a maximum value of 1 and these values are totaled for each distinct variant unit and then divided by the total number of witnesses to arrive at the overall percentage
of certitude. The portions of text that do not contain any variant readings would thus have a value of 100%. Note that this formula does not utilize any Artificial Intelligence (AI) processes, which presumably could find larger data patterns and make more detailed determinations.

Notice that the computer is not making any decisions on its own based on interpretation, but simply analyzing the text based on the criteria supplied by humans. The creation of a computer-generated critical text has several advantages over other modern critical texts made by the old storytelling approach:

- The readings chosen by the computer-generated text contains no theological bias, subjective opinion, or guesses about the author’s original intent which is problematic for other modern critical texts. Instead, the computer makes objective decisions based on scientific data-driven statistical analysis which is more accurate and consistent. No speculative conjectural emendations are made as the computer only makes determinations based on the existing variant readings. \( ^{31,33} \)

- The computer can weigh more detailed data that is not discernable by human intuition. Storytellers are at a definite disadvantage because they are not able to keep track of complex statistical relationships between manuscripts regarding geographical distribution, textual affinity, and textual reliability. And this may become more obvious with the application of AI, as the computer discovers other inferences that would otherwise go unnoticed by humans.

- The computer can weigh data using the humans’ own preferred schemes more consistently and quicker than they can. Storytellers are often inconsistent in applying their own methods because it is hard for them to remember what they previously did under the exact same conditions. This personally became quite apparent in several dry runs before the Bunning Heuristic Prototype (BHP) text was created. \( ^{5,22} \) The computer is able to maintain consistency while humans are often swayed to change their minds if they don’t like how the resulting text reads.

- A new base text can easily be regenerated in minutes to incorporate any new analysis or recent discoveries, while they would take years to creep into an existing base text using the old storytelling approach. For example, if a later 4th century date for manuscript P75 became widely accepted as Brent Nongbri has proposed, \(^2\) the Institut für neutestamentliche Textforschung (INTF) which produces the Nestle-Aland text would have to rethink P75’s relationship with Codex Vaticanus and that could take years to painstaking reweigh every passage it covers (if they ever got around to it at all). This would be true for the change of status in any manuscript as well as any new manuscript discoveries that are made.

- In a similar manner, the computer can generate the most probable orthography for each word in the text. Most modern critical texts have purposely changed the original Koine Greek spelling of the words and removed all references to nomina sacra in the text. \( ^{31,55} \) The computer-generated text can retain the earliest forms of each word based on a statistical model that accounts for both author preferences and scribal tendencies.

- The resulting computer-generated text is more rational than any modern critical text and its results can be openly and independently verified. When compared against the CNTR collation of early manuscripts, the illogical oddball readings chosen by the storytellers stand out like sore thumbs. \( ^{31,34} \) The results of the computer-generated text, on the other hand, always logically follow from all the available data. If there ever were situations where human intuition could be shown to be superior to the computer’s algorithm, the data could simply be tagged with a new attribute and incorporated into the algorithm.

As with other eclectic approaches, critics might think that this method could result in an artificial text that rapidly degenerates into one possessing no support among manuscript, versional, or patristic witnesses. \(^3\) On the contrary, an eclectic approach is perhaps the most scientific approach because that is the nature of errors. An error can occur anywhere by anyone and be passed down to anyone, which is well suited to an eclectic approach which winnows out these errors. (Indeed, this approach has even
winnowed out errors made in the CNTR transcriptions as the volume of correct data simply outweigh any minor anomalies.) Theoretically, it is possible that the resulting text could end up not matching any text in a particular verse, but in practice that has usually not been the case. The fact of the matter is that all modern critical texts (as well as many of the early manuscripts) are eclectic texts – whether the eclecticism favors Alexandrian or Byzantine material is irrelevant. The non-eclectic alternative would be to simply pick a single manuscript and declare it to be correct, but no one seems to be espousing that. That said, it should be pointed out that this computer-generated approach is not limited to processing variants only on a word by word basis, but can be expanded in a similar manner to give value to phrases or even entire verses.

5.2.1 Limitations

Obviously, this formulaic approach is merely a tool that could be used to produce any number of computer-generated texts. For example, if you currently wanted to get more Byzantine readings to appear with only the class 1 and class 2 currently available, you would simply weigh the date with almost no value (or give it opposite value), minimize the textual reliability term, and greatly increase the penalty for coming from the same region (i.e. Egypt). That would still produce a computer-generated text, but not a very rational one. Certainly, any number of texts could be produced using this computer-generated method. So while this data-driven method is scientifically valid, it is not limited to a single solution. Subjectivity due to theological bias can be eliminated through the application of a formula, yet there is still a different form of subjectivity in the creation of the formula itself. Thus, the more rational approach would be to achieve a consensus on the best weighting of the formula before the text is generated! It would not be fair to generate the text, and then tweak the formula again just because it had left out someone’s favorite variant reading.

Besides changing the formula, another thing that could affect the results would be the inclusion of additional data. But adding later data would have little effect on the resulting text if the date is given any kind of rational weighting in the formula. That is one of the reasons why the resulting text can already approximate the Nestle-Aland text by only using data up to the terminus ad quem of 400 AD. Any data after that point would not outweigh the sufficient volume of earlier data and becomes almost meaningless as previously discussed.\textsuperscript{2} Data that could make a greater difference, however, would be the addition of the class 3 and class 4 data, which preserves early readings from more geographical regions and could support the early existence of many Byzantine readings.\textsuperscript{2} The CNTR is agnostic to the issue of Alexandrian vs. Byzantine text-type theories, but simply collects the data and processes it with scientific analysis. This computer-generated approach is not biased against any theory, \textit{it is simply more rational to process the actual evidence that we have} than to base a theory on evidence that we don’t have. Future computer-generated base texts will continue to be released as additional data is added to the CNTR collation. If someone doesn’t like the outcome, they are invited to either provide more data or suggest a more objective method to process the data.

Reliance on external evidence alone, however, may prove to be inadequate in some cases. For example, the statistical confidence for choosing one reading over another could be 51\% to 49\%. While that is adequate for indicating a preference, it is inadequate for establishing any level of confidence in a reading. The expectation of this scientific approach is that a sufficient volume of early data will eliminate or minimize the number of such close calls, and that theory will be tested with the inclusion of class 3 and class 4 data.\textsuperscript{2} For any remaining close calls up to some threshold, it would then be appropriate to \textit{secondarily} examine the internal evidence. Not subjective internal evidence based on someone’s theology or guesses about the author’s intent, but objective internal evidence based on transcriptional and intrinsic probabilities.
5.2.2 Preliminary Results

In order to create a template for the morphological parsing of all the CNTR texts, a preliminary base text was created by hand in 2012 based on the existing class 1 and class 2 data to approximate the results of the computer-generated model. Precise numbers were not available for the textual reliability or textual affinity and so there was a certain amount of additional subjectivity to the process. Many will be surprised to learn that the resulting text ended up being about 500 words different than the Nestle-Aland 28th edition text. How is that possible? The New Testament is a fixed work that isn’t changing and, as far as we know, the majority of scribes were not intentionally trying to alter the text. As a result, the objective weighing of external data alone is apparently sufficient to eliminate the need for subjective storytelling, conjectural emendation, guessing the author’s intent, etc. While this text was never intended to be publicly released, it was later made available at the request of Unfolding Word and Wycliffe Associates for use in their translationCore Bible program. This text later became known as the Bunning Heuristic Prototype (BHP) text and a preliminary draft was publicly released online on December 29, 2017.4

One of the reasons that the Nestle-Aland text is so similar to these results is because the methodology used by the Nestle-Aland text is similar to the same eclectic methodology described here. The real question then is why the Nestle-Aland 28th edition text is wrong in about 500 places? (Did you think the question should be the other way around?) Perhaps it is because they did not consider the exact same data (as they ignored the class 2 data and may have considered other data), choose some variants on the basis of storytelling, §1.3.2 and voted so they their results were often inconsistent given the exact same conditions. What would make the Nestle-Aland text wrong in these places is if it is not the most rational choice given all of the earliest evidence, and that becomes more obvious when displayed against the CNTR collation of early manuscripts. The computer-generated text simply does some of what the Nestle-Aland text was perhaps trying to do, but can do it more consistently with more accurate data. For whatever faults may exist with the computer-generated process, they should be weighed against all the illogical oddball readings already present in the modern critical texts resulting from human intuition that contradict all of the early manuscript evidence as well as all the other modern critical texts!§1.3.4 Objective evidence will always trump the subjective bias of storytelling and conjectural emendation.

When the new computer-generated text is released, scholars will be invited to find any places where they think the Nestle-Aland text or any other text contains a superior reading based on the available evidence, and then the process will be reevaluated. If there are any readings where the computer-generated text is found to be deficient, those readings could be subsequently be tagged so that a human-specified reading could automatically be given precedence in those cases. But so far, this has not been the case. Yet, some critics have been delusional in their insistence that the computer could never select the correct reading as well as they can. The committee that produced the Nestle-Aland 28th text, for example, may indeed feel a certain superiority knowing that no computer program would ever insert “チョックス” in 2 Peter 3:10, but then again, neither did the editors of any Greek critical text throughout history, including every previous version of the Nestle-Aland text!§1.3.3 Indeed, based on preliminary results, it appears that there is no case where any critical text has chosen a reading that is superior to the computer-generated text based on the given set of data. Seeing that the critical texts produced by storytellers do not agree with each other anyway, it is more rational to let matter to be settled by the computer in a scientifically objective manner. A scientifically based computer-generated analysis that is open to public scrutiny is perhaps the biggest step forward toward providing the textual authority and accuracy deserving of the New Testament.


