

WHAT DOES THE GREEK FIRST CLASS CONDITIONAL IMPLY? GRICEAN METHODOLOGY AND THE TESTIMONY OF THE ANCIENT GREEK GRAMMARIANS

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Debate has been engaged for more than a century over what implications, if any, a Greek First Class Conditional (FCC) has concerning the proposition in its protasis. Some pedagogical grammars claim that the Greek FCC is well translated with the English causative construction introduced with "since." In this paper a twofold approach is used to show that this claim is in error.

First, a methodology for formulating and testing hypotheses concerning historical languages is established. The methodology is based on a Popperian view of hypothesis testing. In this case a testable hypothesis is formed utilizing the descriptive apparatus of H. P. Grice. The hypothesis is that the FCC is well translated with English "since" and it is proven false.

Second, the testimony of four ancient Greek grammarians is evaluated. The grammarians examined are: Dionysius Thrax (1st century BCE), Apollonius Dyscolus (2nd century CE), Stephanos and Heli-dorus (Byzantine period). It is shown that these grammarians agree with the conclusion that it is not appropriate to translate the FCC with an English causal introduced by "since."

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I. INTRODUCTION

DOES a Koine Greek conditional sentence introduced by εἰ ("if") with the indicative imply the truth of the proposition in its protasis? Debate on this issue has been engaged for over 100 years. In the 19th century two of the major participants in the debate were William

Goodwin¹ and Basil Gildersleeve.² Early in this century, A. T. Robertson,³ claiming to be in the Gildersleeveian tradition, asserted that the truth of the proposition in the protasis is implied to be true or at least assumed true for the sake of argument. Some modern pedagogical grammars follow Robertson's assertions and carry them to an extreme that Robertson himself did not.

These pedagogical grammars claim that a Greek conditional introduced by $\epsilon\iota$ with the indicative should be translated with an English causal construction. That is, a sentence like:

(1a) $\text{Ei o\ddot{u}\nu\ \sigma\upsilon\nu\eta\gamma\acute{\epsilon}\rho\theta\eta\tau\epsilon\ \tau\tilde{\omega}\ \text{X}\rho\iota\sigma\tau\tilde{\omega}\ \tau\acute{\alpha}\ \acute{\alpha}\nu\omega\ \zeta\eta\tau\epsilon\iota\tau\epsilon}$ (Col 3:1)

should be translated with the causal (1b) below and not with the conditional (1c).

(1b) Since then you have been raised up with Christ, keep seeking the things above.

(1c) If then you have been raised up with Christ, keep seeking the things above.

They claim that sentence (1a) implies that the proposition in its protasis, namely, "You have been raised up with Christ," is true and for this reason an English causal sentence should be used. Recently, James Boyer⁴ argued that such a claim is in error.

This debate has been clouded by at least two factors: ambiguity of terms and hypotheses formulated in an untestable manner. For this reason, no one has achieved a level of proof on which all can agree. However, H. P. Grice⁵ has developed linguistic theory which provides a descriptive apparatus in which testable hypotheses concerning implications can be formulated. Using Grice's descriptive apparatus it is pos-

¹William Goodwin, "The classification of Conditional Sentences in Greek Syntax," in *Journal of Philology* 15 (1874) 188-205; "'Shall' and 'Should' in Protasis, and Their Greek Equivalents," in *Journal of Philology* 18 (1877) 18-38; *Syntax of the Moods and Tenses of the Greek Verb* (London: MacMillan, 1889); *Greek Grammar* (London: MacMillan, 1879, reprinted by St. Martin's, 1878) §§ 1381-1424.

²Basil L. Gildersleeve, "Studies in Pindaric Syntax," in *American Journal of Philology*, 3 (1882) 434-55; "A Reply to E. B. Clapp," in *American Journal of Philology* 9 (1888) 491-92; "Stahl's Syntax of the Greek Verb," in *American Journal of Philology* 30 (1909) 1-21.

³A. T. Robertson, *A Grammar of New Testament Greek in Light of Historical Research* (Nashville: Broadman, 1934).

⁴James L. Boyer, "First Class Conditionals, What Do They Mean?" in *Grace Theological Journal* 2.1 (1981) 75-114.

⁵H. P. Grice, "Logic and Conversation," in *Syntax and Semantics 3, Speech Acts*, ed. P. Cole and J. P. Morgan (New York: Academic, 1975) 41-58; H. P. Grice, "Further Notes on Logic and Conversation," in *Syntax and Semantics 9, Pragmatics*, ed. J. M. Sacks (New York: Academic, 1978) 113-27.

sible to define a clear and unambiguous hypothesis to test whether or not the claim of these pedagogical grammars is indeed sound. In the following paper, the assertions of some grammarians over the past century are reviewed. The claim of the pedagogical grammars which assert that a first class conditional should be translated with English "since" is formulated into a testable hypothesis. The methodology employed proves unambiguously that conditional sentences introduced with εἰ plus the indicative do not imply the truth of the proposition in the protasis.

In the debate over the implications of Greek conditionals, no one has gone back to examine what ancient Greek grammarians said about the issue. A second purpose of this paper is to do just that. The relevant claims of Greek grammarians from 200 B.C. to A.D. 600 are reviewed. These confirm that conditional sentences introduced with εἰ with the indicative do not imply that the proposition in the protasis is true.

II. NOTATIONAL CONVENTION

There are two conditional particles in Greek: εἰ and ἕάν. Readers of this paper not familiar with Greek may, for the time being, consider both εἰ and ἕάν to mean "if" neglecting any differences in meaning between them. Greek also has a causal particle ἐπεὶ which is well translated by the English "since."

Many grammarians categorize the Greek conditionals in different ways and use different names for their categories. Only two of the forms of the conditionals will be discussed in this paper: the forms many grammarians call the first and third class conditionals. The causal construction will also be discussed. The following notational shorthand will be used to refer to these constructions.

Shorthand	Syntactic form	Common name
εἰ p,q	εἰ + indicative, indicative	first class conditional
ἕάν p,q	ἕάν + subjunctive, indicative	third class conditional
ἐπεὶ p,q	ἐπεὶ + indicative, indicative	causal construction

In this notation, "p" and "q" are variables representing clauses in the protasis and apodosis respectively.

III. A BRIEF HISTORY OF THE ARGUMENT

A. *William Goodwin*

William Goodwin sets forth his claims in no uncertain terms:

- (2) Probably no grammarian would now maintain the absurdity that the indicative in the protasis expresses either "certainty in fact" or "what is believed by the speaker to be true." . . . Most grammarians

are eager to disclaim any connection between the “certainty” here intended and the matter of fact or even opinion; and thus they reduce the “certainty” to a harmless abstraction, which is utterly valueless as a definition . . .

I have now nothing to change the statement which I made in 1864, . . . Every example that I have met has only confirmed the opinion, which I now express with the greatest confidence that there is no inherent distinction between the present indicative [$\epsilon\iota$ p,q] and present subjunctive [$\acute{\epsilon}\acute{\alpha}\nu$ p,q] in the protasis, except that of *time*⁶ (Goodwin’s emphasis).

Goodwin spends the bulk of his article on aspectual and temporal differences between conditionals of the form $\acute{\epsilon}\acute{\alpha}\nu$ p,q and $\epsilon\iota$ p,q when the proposition q is expressed with a future indicative.

B. Basil Gildersleeve

Concerning the first class condition Gildersleeve says:

- (3) It is used of that which can be brought to the standard of fact; but the standard may be for or against the truth of the postulate. All the logical condition [$\epsilon\iota$ p,q] asserts in the inexorable connection of the two members of the sentence. It is the favorite condition in argument . . . when one wishes to be or seem fair . . . when one is sure of the premise. . . . But so long as the negative continues to be $\mu\eta$, the conditional and the causal do not coincide. . . . In prose, it is semi-causal.⁷

An observation to make concerning this passage is that Gildersleeve does not say that $\epsilon\iota$ p,q implies that the proposition p is true like a causal $\acute{\epsilon}\pi\epsilon\iota$ p,q does. On the contrary, he even says it does not do so. Robertson claims to be in the Gildersleeveian tradition. However, the terminology he uses is not as concise as Gildersleeve’s and he has been interpreted by some to suggest more than Gildersleeve did, namely that $\epsilon\iota$ p,q implies the truth of p.

C. A. T. Robertson

Robertson says concerning these conditionals:

- (4) This theory in brief is that there are four classes of conditions which fall into two groups or types. The two types are the deter-

⁶Goodwin, “Conditional Sentences in Greek Syntax,” in *Journal of Philology* 15 (1874) 189–90.

⁷Gildersleeve, “Studies in Pindaric Syntax,” in *American Journal of Philology* 3 (1882) 435.

mined [$\epsilon\dot{\iota}$ p,q is in this group] and the undetermined [$\acute{\epsilon}\acute{\alpha}\nu$ p,q is in this group]. The point in “determined” [$\epsilon\dot{\iota}$ p,q] is that the premise or condition is *assumed* to be true. . . . The indicative is used for this type . . . The other type is the undetermined condition. Naturally the indicative is not allowed here. The element of uncertainty calls for the subj. or the optative. . . .⁸ In broad outline these four classes of conditions may be termed Reality [$\epsilon\dot{\iota}$ p,q], Unreality, Probability [$\acute{\epsilon}\acute{\alpha}\nu$ p,q] and Possibility. . . . This brings us to the other theory . . . expounded by Goodwin. . . . Goodwin confuses the “fact” with the “statement” of the fact. He describes his first condition thus: “When the protasis *simply states* a present or past particular supposition, implying nothing as to the fulfillment of the condition, it takes a present or past tense of the indicative with $\epsilon\dot{\iota}$.” The words to which I object . . . are “implying nothing as to the fulfillment of the condition.” This condition [$\epsilon\dot{\iota}$ p,q] *pointedly* implies the fulfillment of the condition. . . . This is the *crux* of the whole matter⁹ (Robertson’s emphasis).

Robertson moderates his stance slightly to account for the many examples in which $\epsilon\dot{\iota}$ p,q clearly does not imply truth of the proposition in the protasis. Such an instance is Matt 12:27, where Jesus says, “If [$\epsilon\dot{\iota}$] I cast out demons by Beelzebul . . .” Concerning this Robertson says,

- (5) This class of condition [$\epsilon\dot{\iota}$ p,q] assumes the condition to be a reality and the conclusion follows logically and naturally from that assumption . . . This condition therefore, taken at face value, assumes the condition to be true. The context or other light must determine the actual situation. This is a good example (cf. also Gal 5:11) to begin with, since the assumption is untrue in fact, though assumed to be true by Jesus for sake of argument.¹⁰

What Robertson is saying here is that Matt 12:27 should be translated, “Assuming for the moment that I do cast out demons by Beelzebul . . .” instead of with the causative, “Since I cast out demons by Beelzebul . . .” In this statement Robertson makes it clear that he is not asserting that the propositions in the protasis are in fact true.

However, Robertson’s claims are vague and untestable. He calls the condition of the type $\epsilon\dot{\iota}$ p,q “determined,” in contrast to “undetermined.” He calls it a condition of “reality,” in contrast to “possibility.” He says that this condition assumes the premise to be true, in another that it pointedly implies the fulfillment of the condition and finally that

⁸Robertson, *Greek Grammar* (Nashville: Broadman, 1934) 1004.

⁹Robertson, *Greek Grammar*, 1005–6.

¹⁰Robertson, *Greek Grammar*, 1007–8.

it assumes the condition to be a reality. Apparently misunderstanding Robertson, some pedagogical grammars, which claim Robertson as their authority, have gone so far as to identify conditionals of the form εἰ p,q with causal constructions.

D. *The Claim of Summer's Pedagogical Grammar*

Only one of the pedagogical grammars is quoted here as an example of what some of Robertson's followers claim. Others may be examined by the interested reader.¹¹ Ray Summers, in his pedagogical grammar says,

- (6) The first class condition [εἰ p,q] *affirms* the reality of the condition . . . “εἰ μαθηταὶ τοῦ κυρίου ἔσμεν σωθήσεται” . . . This construction is best translated, “Since we are disciples of the Lord, we shall be saved.”¹²

E. *Boyer's Rebuttal*

Boyer attributes much of the confusion in this argument to Robertson's unclear terminology. Furthermore, he notes that Robertson is inconsistent in the application of his theory to conditionals in his commentary *Word Pictures*. In *Word Pictures* sometimes Robertson notes that a protasis is assumed true, but in many cases where it is obviously false, he fails to mention that a first class conditional is used in the Greek.¹³

Boyer sought to bring some focus to this debate by examining all of the conditionals in the New Testament. He used *gramcord* to search the New Testament for all the examples of each kind of condition.¹⁴ He then sorted first class conditionals into three groups: (1) instances where the condition was obviously true, (2) instances where the condition was obviously false, (3) instances where the condition was undetermined. According to his classification, 115 of the condition in the NT are obviously true and 36 are obviously false.¹⁵ He considers these

¹¹Some other grammars which assert claims like Summers' are: F. Blass, A. Debrunner and R. Funk, *A Greek Grammar of the New Testament and other Early Christian Literature* (Chicago: University Press, 1961); H. E. Dana and J. R. Mantey, *A Manual Grammar of the Greek New Testament* (Toronto: Macmillan, 1957); Huber L. Drumwright, *An Introduction to New Testament Greek* (Nashville: Broadman, 1980).

¹²Ray Summers, *Essentials of New Testament Greek* (Nashville: Broadman, 1950) 108-9.

¹³Boyer, "First Class Conditionals," *GTJ* 2.1 (1981) 79-80.

¹⁴Boyer's work is reported in four articles in *Grace Theological Journal*. In addition to the one cited above there are: "Second Class Conditions in New Testament Greek," 3.1 (1982) 81-88; "Third (and Fourth) Class Conditionals," 3.2 (1982) 163-75; "Other Conditional Elements in New Testament Greek," 4.2 (1983) 173-88.

¹⁵Boyer, "First Class Conditionals," *GTJ* 2.1 (1981) 76.

36 conditions in the obviously false category to be counterexamples to those who would translate the $\epsilon\iota$ p, q with "since."

Boyer's work is exhaustive and convincing. However, there is still an element of uncertainty in Boyer's analysis because the methodology by which he separated the conditions into categories of "obviously true" and "obviously false" is apparently his own intuition. There are many examples in his obviously false category concerning which it is not so obvious that they are false. For example:

(7a) If [$\epsilon\iota$] you are the Christ, tell us. Luke 22:67

(7b) If [$\epsilon\iota$] to others I am not an apostle, yet I am to you. 1 Cor 9:2

In sentence (7a), Jesus was in fact the Christ, though the speakers of this sentence may not have believed He was. In (7b) there were in fact others who believed Paul was not an apostle, which makes the protasis in fact true, even though Paul was in fact an apostle and believed himself to be one.

IV. GRICEAN DESCRIPTIVE APPARATUS

Significant progress has been made in linguistic description in the past two decades in the area of implications. The work of H. P. Grice¹⁶ is foundational in this area. Many unambiguous tests for identifying and proving the existence of implicatures¹⁷ have been developed. One of these tests will aid us in this endeavor.¹⁸

Grice made a useful distinction between two kinds of implicature: conventional implicature and conversational implicature. A conventional implicature is one which is associated with the meaning of the words and the grammar of a sentence, which cannot be canceled by the context. For example, factive verbs¹⁹ have the conventional implicature

¹⁶See n. 5 above.

¹⁷Grice defined the term "implicature" saying, "I wish to introduce as terms of art, the verb *implicate* and the related nouns *implicature* (cf. *implying*) and *implicatum* (cf. *what is implied*). The point of this maneuver is to avoid having, on each occasion, to choose between this or that member of the family of verbs for which implicature is to do general duty" (Grice [1975] 43, 44). Generally speaking, one may think of an implicature as an implication. But Grice introduced this unique term, because terms like "implication," "presupposition," and "assumption" have been used for a variety of different and poorly defined uses.

¹⁸Some helpful introductory texts on Gricean implicature are: Stephen C. Levinson, *Pragmatics* (Cambridge: University Press, 1983) 97-166; John Lyons, *Semantics* (Cambridge: University Press, 1977) 592-606; John McCawley, *Everything that Linguists Have Always Wanted to Know About Logic* (Chicago: University Press, 1981) 214-34.

¹⁹Factive verbs are verbs which presuppose the truth of their complements. This class of verbs was first identified by Paul and Carol Kiparsky in their article "Fact" in *Progress in Linguistics*, ed. M. Bierwisch and K. Heidolf (The Hague: Mouton, 1970)

that the proposition in their complement is true. Evaluative verbs²⁰ have a conversational implicature that the proposition in their complement is true. Consider the following sentences with the factive verb “regret” and the evaluative verb “criticize.”

(8a) I regretted that John told a lie.

(8b) I criticized John for telling a lie.

The complement’s proposition in both cases is the same: “John told a lie.” But what about the implicatures? Does a person who utters (8a) or (8b) implicate that John told a lie? It may seem that both sentences do, but on closer inspection we find that they are different with respect to implicature.

A common test for implicature is to place the utterance in a context which attempts to cancel the implicature. If a sentence with a conventional implicature is placed in a context which attempts to cancel the implicature, a pragmatically ill-formed sentence results. If a sentence with a conversational implicature is placed in a context which attempts to cancel the implicature, the implicature is canceled and the sentence remains well formed. For example the sentences in (8) are put in such contexts in (9) below.

(9a) #I regretted that John told a lie, but I shouldn’t have regretted it because it was Joe who lied.

(9b) I criticized John for telling a lie, but I shouldn’t have criticized him because it was Joe who lied.

I use a pound symbol (#) to the left of a sentence to indicate that the sentence is pragmatically ill-formed. Since (9a) is ill-formed, this proves that the sentence (8a) has a conventional implicature that John told a lie. In sentence (9b) the implicature that John told a lie is canceled by the

143–73. Some examples of factive verbs in English which take object clause complements introduced by *that* are: *regret*, *resent*, *deplore*, *be odd*, *be glad*. Some examples of factive verbs in Greek which take object clause complements introduced by *ὅτι* are: *θαυμάζω*, *λανθάνω*, *χαίρω*, *λυπέομαι*, *μεταμέλομαι*. See L. W. Ledgerwood, “Syntactic Insulation of Factive Clauses,” in *The Journal of the Linguistic Association of the Southwest* 5.2 (1982) 105, 112.

²⁰Evaluative verbs are verbs like *criticize*, *accuse*, *praise*, *congratulate*. Filmore first identified this class of verbs in C. Filmore, “An Exercise in Semantic Description,” in *Studies in Linguistic Semantics*, ed. C. J. Filmore and D. T. Langendoen (New York: Holt, 1972) 273–89. Karttunen and Peters showed that the implicature associated with them was not conventional but conversational. Lauri Karttunen and Stanley Peters, “Conventional Implicature,” in *Syntax and Semantics 9, Presupposition* (New York: Academic, 1979).

context without resulting in a pragmatically ill-formed sentence. Therefore the implicature in (8b) was a conversational implicature.²¹

English causal sentences have a conventional implicature that the proposition in their protasis is true but English conditionals do not. Sentences (10) below illustrate this. Sentence (10a) implicates conventionally that the moon is full, but sentence (10b) does not.

(10a) Since the moon is full, it is opposite the sun.

(10b) If the moon is full, it is opposite the sun.

To speakers of English this seems intuitively obvious. However, this claim may be moved beyond the realm of intuition by placing both sentences in a context that attempts to cancel the implicature as shown in sentences (11) below.

(11a) #Since the moon is full, it is opposite the sun; but the moon is not full today.

(11b) If the moon is full, it is opposite the sun; but the moon is not full today.

This suggests a way to formulate a test of Summers' claim that $\text{ei } p, q$ is best translated with English "since p,q." Summers' claim entails $\text{ei } p, q$

²¹By using Gricean terminology in this paper I do not mean to imply that Grice has said the last word on implicature. There have been challenges to Grice's methodology.

Most recently several books and papers have appeared proposing relevance theory as superior to the Gricean framework. Relevance theory and discussions of the problems with Grice's theory are contained in: Dianne Blakemore, "The Organization of Discourse," in *Linguistics, The Cambridge Survey Vol. 4*, ed. Frederick J. Newmeyer (Cambridge: University Press, 1988); Dianne Blakemore, *Semantic Constraints on Relevance* (Oxford: Blackwells, 1987); Ruth Kempson, "Grammar and Conversational Principles," in *Linguistics, The Cambridge Survey Vol. 1*, ed. Frederick J. Newmeyer (Cambridge: University Press, 1988); D. Sperber and D. Wilson, *Relevance, Communication and Cognition* (Oxford, Blackwells, 1986).

Two comments are offered in defense of applying Gricean terminology in this paper. First, most of the challenges to Grice's work have come in the area of what he called conversational implicatures (for example, Jerrold M. Sadock, "On Testing for Conversational Implicature," in *Syntax and Semantics 9, Pragmatics*, ed. P. Cole [New York: Academic, 1977]). The notion of conversational implicature is not used in this paper; conventional implicatures are. (For more on conventional implicature see the following papers by Lauri Karttunen and Stanley Peters: "Requiem for Presupposition," in *Papers from the Third Annual Meeting of the Berkeley Linguistic Society*, 360-71; "Conventional Implicature," in *Syntax and Semantics 11, Presupposition* (New York: Academic, 1979); "Presuppositions of Compound Sentences," in *Linguistic Inquiry*, vol. 4 (1973) 169-93. Secondly, the goal of this paper is to show that by making use of a methodology like that of Grice, one can formulate clear and testable hypotheses which facilitate communication and advance research in applied areas such as this. These arguments could be reformulated in terms of relevance theory without changing the result.

having a conventional implicature that the proposition p is true. Summers' claim can be formulated in a hypothesis based on this entailment:

- (12) Summers' hypothesis: Sentences of the form $\epsilon\iota$ p, q have the conventional implicature that p is true.

Formulating his hypothesis in this manner yields one that is very testable. If indeed $\epsilon\iota$ p, q does have a conventional implicature that the proposition p is true, then it will not occur in contexts which cancel implicature.

In an investigation of Koine Greek, it is not possible to record speech of native speakers nor to quiz them concerning their intuitions about their language. So, a disciplined methodology is needed for testing hypotheses from texts. David Lightfoot says in his *Principles of Diachronic Syntax*,²² "One can never demonstrate the truth of a theory, only its falsity. Thus progress in scientific endeavors can be viewed as the successive elimination of theories shown by empirical investigation to be false." I take this somewhat Popperian view of scientific progress to be axiomatic. Thus the historical grammarian's goal is to formulate hypotheses that are well enough defined that they can be proven false. No hypotheses will ever be proven true in an inductive endeavor such as this; they will only be supported by arguments from silence. The confidence that may be placed in a hypothesis will be a function of how "silent" the text is; that is, of how many possibilities were examined in which the hypothesis could have been proven false and was not.

Large volumes of Greek texts must be searched to find whether $\epsilon\iota$ p, q occurs in contexts which cancel the implicature. If $\epsilon\iota$ p, q is not found in such contexts, then this will be an argument from silence that it contains a conventional implicature. This is a weak argument. But if $\epsilon\iota$ p, q is ever found in a context in which the implicature is canceled, then it will be proven that the $\epsilon\iota$ p, q does not have a conventional implicature that p is true.

A systematic way of searching large amounts of text to look for examples like this is to imagine discourse forms which always cancel the proposition in the protasis. Sometimes this process can be made regular enough that a computer may be used to do some of the searching for such occurrences. For example, two conditionals linked by an adversative or disjunctive with the second protasis negated is such a construction.

²²David Lightfoot, *Principles of Diachronic Syntax* (Cambridge: University Press, 1974) 74f.

- (13) if p then q but if not p then r

Another construction which cancels the proposition in the protasis is a modus tolens argument which has the form:

- (14) if p then q, but not q, therefore not p

V. TESTING THE HYPOTHESIS

The first two books of Arrian's Discourses of Epictetus,²³ the Cynic Epistles²⁴ and the New Testament, all dating from around the first century A.D., have been searched for examples in which a conditional of the form εἰ p,q occurs in a context in which the proposition p is negated. Such examples are abundant. Following are some of them.²⁵

A. Examples of the Form εἰ p,q but εἰ not p,r

- (15a) εἰ γὰρ μὴ εἰσὶν Θεοί, πῶς ἐστὶ τέλος ἔπεσθαι Θεοῖς; εἰ δ' εἰσὶν μὲν, μηδενὸς δ' ἐπιμελούμενοι, καὶ οὕτως πῶς ὑγιὲς ἔσται;
For if [εἰ] there are not gods, how is it an end to serve gods?
But if [εἰ] there are and they don't care, how will this be sound?

Epictetus I.12.4

- (15b) Εἰ μὲν οὖν ἀδικῶ καὶ ἄξιον θανάτου πέπραχά τι, οὐ παραιτοῦμαι τὸ ἀποθανεῖν, εἰ δὲ οὐδέν ἐστιν . . .
If [εἰ] I am a wrongdoer, and have committed anything worthy of death, I do not refuse to die; but if [εἰ] none of those things are true . . .

(Acts 25:11)

Note that in both of these cases, translation with "since" is not possible because the conventional implicature that "since" generates is canceled.

- (16a) #Since there are not gods . . . , but since there are . . .

- (16b) #Since I am a wrongdoer . . . , but since none of these things are true . . .

²³Epictetus in *Epictetus, the Discourses as Reported by Arian*, T. E. Page et al., eds. (Cambridge: Harvard, 1967). Also the machine readable text of Epictetus' Discourses encoded in the Thesaurus Linguae Graeca database at the University of California at Irvine was used.

²⁴Abraham J. Malherbe, *The Cynic Epistles* (Missoula, MT: Scholars, 1977).

²⁵Other examples not listed here are: Epictetus I.12.4, I.29.7, II.1.17, II.2.24, II.4.4, II.5.25, II.10.13, II.15.6; Malherbe, *The Cynic Epistles*, Crates 30, p. 80, l. 6; 35, p. 88, l. 19; Diogenes 5, p. 96, l. 1; 24, p. 116, l. 10. In the NT see Matt 12:27-28, 26:39-40; Luke 11:19-20; John 10:37; 18:23; 1 Cor 9:17; James 2:2-9.

B. An Example of a Modus Tolens Argument

- (17) Εἰ δὲ ἀνάστασις νεκρῶν οὐκ ἔστιν, οὐδὲ Χριστὸς ἐγήγερται . . . Νυνὶ δὲ Χριστὸς ἐγήγερται ἐκ νεκρῶν . . .

But [εἰ] if there is no resurrection of the dead, not even Christ has been raised. . . . But now Christ has been raised from the dead. . . .

1 Cor 15:13, 20

Note that the argument makes no sense if εἰ is translated with “since” because Paul intends for the Corinthians to deduce that there is a resurrection of the dead.

- (18) #Since there is no resurrection of the dead, not even Christ has been raised . . . But now Christ has been raised from the dead.

Examples such as these disprove the Summers hypothesis as formulated above. That is, they prove that conditionals of the form εἰ p,q do not have the conventional implicature that the proposition p is true. Therefore the English causal “since p,q” is not a good translation for εἰ p,q across the board.

C. Examples of εἰ p,q in which p Is True

Nevertheless, sometimes there are cases in which conditionals of the form εἰ p,q can be translated with English “since.” Following are two such examples.²⁶

- (19a) εἰ ἐμὲ ἐδίωξαν, καὶ ὑμᾶς διώξουσιν.

If [εἰ] they persecuted me, they will persecute you also.

John 15:20

- (19b) Εἰ δὲ καλὸς ἦν Πλάτων καὶ ἰσχυρὸς, ἔδει καμὲ καθήμενον ἐκπονεῖν, ἵνα καλὸς γένωμαι ἢ ἵνα ἰσχυρὸς, ὡς τοῦτο ἀναγκαῖον πρὸς φιλοσοφίαν, ἐπεὶ τις φιλόσοφος ἅμα καὶ καλὸς ἦν καὶ φιλόσοφος;

Now if [εἰ] Plato was handsome and strong, is it necessary for me to sit down and strive to become handsome or strong on the assumption that this is necessary for philosophy, since [ἐπεὶ] some philosopher was at the same time both handsome and strong?

Epictetus I.8.13

²⁶For other examples in which the proposition in the protasis is true and translation with “since” is possible, see Malherbe, *Cynic Epistles*, Crates 30, p. 80 l. 8 and Sophocles Fr. 877N (sentence 28 in this paper); Rom 3:29, 30; 11:21.

Translations with “since p,q” are appropriate for these examples as shown in sentences (20) below.

(20a) Since they persecuted me, they will persecute you also.

(20b) Since Plato was handsome and strong . . .

To the people who originally heard these utterances, and to those who are acquainted with Jesus’ life and Plato’s physique, it is generally known that Jesus was in fact persecuted and that Plato was in fact handsome and strong. That is, it is known from other sources that the proposition in the protasis is true. For this reason, translation with “since p,q” is acceptable, because the implicature generated by “since” does not conflict with the known facts of the case. In all the cases in the corpus under investigation where “since p,q” may be used to translate $\epsilon\acute{\iota}$ p,q, it is clear from the context that p is true. The truth of p comes from the context, not from a supposed implicature associated with $\epsilon\acute{\iota}$ p,q.

But the fact that $\epsilon\acute{\iota}$ p,q sometimes can and sometimes cannot be translated with “since p,q” indicates that there is something else going on in these conditionals other than conventional implicature and for this reason it is not appropriate to recommend a translation of $\epsilon\acute{\iota}$ p,q as “since p,q.”

Why does $\epsilon\acute{\iota}$ p,q have this on again-off again implicature? Why don’t such implicatures occur with $\acute{\epsilon}\acute{\alpha}\nu$ p,q? These are not the subject of this paper. Answers to these questions have been proposed elsewhere.²⁷ What this paper claims to offer is unambiguous proof that the first class conditional does not conventionally implicate the truth of its protasis.

The following quotes from ancient Greek grammarians show that they agree with this conclusion.

VI. TESTIMONY OF THE ANCIENT GREEK GRAMMARIANS

Passages from four ancient Greek grammarians are presented below. The grammarians are:²⁸

Dionysius Thrax	(1st century B.C.)
Apollonius Dyscolus	(2nd century A.D.)
Stephanos	(Byzantine period)
Heliodorus	(Byzantine period)

²⁷Unpublished proposal presented by L. W. Ledgerwood at the 1989 meeting of the Linguistic Association of the Southwest in San Antonio, TX, and the 1990 AAR/SBL meeting in New Orleans, LA.

²⁸The text used is found in G. Uhlig, *Grammatici Graeci I I/II, Dionysii Thracis and Grammatici Graeci, II II/III, Apollonii Dyscoli* (Hildesheim: Georg Olms, 1878–1910, reprinted 1965). The English translations are original.

Dionysius is the father of western grammatical tradition; however, his work is quite short. Stephanos and Heliodorus wrote commentaries on Dionysius' grammar which flesh out his arguments with example sentences. Apollonius wrote the most voluminous and original grammar of the four. We will examine Dionysius and his commentators first, then Apollonius.

A. *Dionysius Thrax*

Dionysius classed conditional and causal particles (εἰ "if," ἐπεὶ "since," ἕάν "if") along with conjunctions (καί "and," ἢ "or," δέ "but," etc.). He has only one short passage on conjunctions. The portion of this dealing with conditionals and causals is listed below.

If Dionysius' account seems unclear, his commentators adequately explain his meaning.

- (21) Conditional particles are those which do not assert existence, but they signify consequence. They are: εἰ, εἴπερ, εἰδή, εἰδήπερ.

Causal connective particles are those which assert order along with existence. They are ἐπεὶ, ἐπείπερ, ἐπειδή, ἐπειδήπερ.

Expletive conjunctions are those which are used on account of meter or adornment. They are: δῆ, ῥά, νύ, ποῦ, τοί, θήν, ἄρ, δῆτα, πέρ, πῶ, μήν, ἄν, νῦν, οὔν, κέν, γέ (20.3.4,8).

Note that Dionysius does not discuss the conditional particle ἕάν. ἕάν is constructed from εἰ plus the modal particle ἄν. He mentions the modal particle ἄν under Expletive Conjunctions.²⁹

B. *Dionysius' Commentators, Stephanos and Heliodorus*

- (22) The conditional particles differ from the causal connective particles as follows: the conditional particles only connect propositions, they do not affirm the reality. For example, if I say, "If [εἰ] the sun is over the land," it is not clear whether the sun is over the land. But the causal connective particle, in addition signifying consequence and connecting to another proposition

²⁹Dionysius has lumped a lot of different types of particles into his "Expletive Conjunctions." His statement about them indicates that he considers that they add little or no meaning to a text. Rather, they are added simply to make meter (i.e., in poetry) come out right and to add adornment. It seems that he really did not know what to do with these. Apollonius discusses a theory which said that expletive conjunctions merely "fill up the empty holes in a text" and takes strong objection to this theory. He says that each of the expletive conjunctions adds some special meaning such as "transition in logic" for δῆ, "moderation" for γέ, etc. (III.127-29). Unfortunately, he does not tell us what the special meaning of ἄν or ἕάν is.

also affirms the reality, for example, "since [ἐπεὶ] the sun is over the land, it is day" (Stephanos, in Uhlig 1965 I/III, p. 284.30).

- (23) Of the conjunctions, some assert existence, others assert order and others both. Coordinating conjunctions [i.e., καί "and"] assert existence. For example, if I say, "God and day and justice exist," everything is affirmed.³⁰ The conditional particles disclose order. For example, if I say, "If I am walking I am moving," the sentence holds consequence, but it is not also affirmed; for I can say this while I am sitting. But if I turn it around, the truth is destroyed. For example, "Whenever [ὅταν] I am moving, I am walking" is not true, for it is possible for me, while sitting, to move something. The causal connective particles have both the reality of the coordinating conjunctions and the order of the conditional particles; for "Since [ἐπεὶ] I am walking, I am moving" is both affirmed and has order. In the same way, it being turned around is no longer true (Stephanos, in Uhlig 1965 I/III, p. 286.5).
- (24) The difference between the coordinating conjunction and the conditional particle is this: the coordinating conjunctions have the force of reality but they are unordered with respect to the flow of speech. For example, "I am walking and I am thinking," and the reverse, "I am thinking and I am walking."³¹ But the conditional particles do not affirm the force of reality; rather they affirm the consequence of the expression and they preserve the order. For example, "If [εἰ] I shall walk, I shall be moving." But I may not say, "If [εἰ] I shall be moving, I shall be walking," for it is false (Heliodorus in Uhlig 1965 I/III 105.10).
- (25) The conditional conjunction stands in place of εἰ, in "If [εἰ] there is light, it is day." . . . It also, stands in place of the causal connective particle ἐπεὶ in, "Since [εἰ] you have done terrible things, you must suffer terrible things."

One must see that the causal connective particles have this much more than the conditional particles, they not only have

³⁰By "Everything is affirmed," Stephanos means that a person who utters the phrase, "God and day and justice exist," is asserting that God exists, it is presently day and justice is presently occurring. On the contrary, a person saying, "If I am walking, I am moving," does not assert that he is presently walking or moving.

³¹Heliodorus is saying that with the conjunction καί ("and") it does not matter what order the propositions come in. Thus, "I am walking and I am thinking" means the same as "I am thinking and I am walking." However, in the case of the conjunction εἰ, changing the order changes the meaning.

consequence and order, but also they indicate the existence of reality. For I may say, "Since [ἐπεὶ] it is day, there is light," . . . and there is not uncertainty as with the conditional particle (Heliodorus in Uhlig 1965 I/III, pp. 439.4–11).

Dionysius and his commentators address specifically the questions of implicata of Greek conditionals. They here are interested in two properties of the so-called conjunctions. These are: (1) existence and (2) what they refer to as consequence and order. The following definitions of these terms are proposed for these passages.

- Existence: Uttering the phrase implies that the propositions joined by the conjunction are true in reality.
 Consequence: There is a logical or causal relationship between the phrases joined by the conjunction.
 Order: The linear order of the propositions in speech flow is significant. The order cannot be reversed.

The Greek grammarians quoted above tell us that their so-called conjunctions have the following properties:

Conjunction	Properties
Coordinating Conj. (καί, and)	existence
Conditional Conj. (εἰ, if)	consequence and order
Causal Conj. (ἐπεὶ, since)	existence, consequence and order

The examples they give leave no doubt as to their conclusion. Stephanos gives the sentences:

(26a) If [εἰ] the sun is over the land, it is day.

(26b) Since [ἐπεὶ] the sun is over the land, it is day.

He says that (26a) does not imply that the sun is over the land while (26b) does.

Of particular interest is Heliodorus statement in quote (25) above. He says that εἰ may be used in place of εἰάν and gives an example repeated as (27) below and that ἐπεὶ may be used in place of ἐπεὶ and gives an example repeated in (28) below.

(27) If [εἰ] there is light, there is day.

(28) Since [εἰ] you have done terrible things, you must suffer terrible things (Soph Fr 877 N).

Sentence (27) is a statement of general truth. It does not assert that it is necessarily day or not, it just asserts the entailment that whenever it is

light, it is day. It seems that Heliodorus considers it more natural to make such a generalized statement in Greek with $\acute{\epsilon}\acute{\alpha}\nu$ p,q (what Goodwin called the present general condition: $\acute{\epsilon}\acute{\alpha}\nu$ and the present subjunctive in the protasis and a present indicative in the apodosis). But he gives sentence (27) as an example of a case in which $\epsilon\acute{\iota}$ p,q means the same as the present general condition $\acute{\epsilon}\acute{\alpha}\nu$ p,q. Sentence (28) is an example of $\epsilon\acute{\iota}$ p,q being used in a context in which it is clear that p is true. In this example, he says that $\epsilon\acute{\iota}$ p,q means about the same as $\acute{\epsilon}\pi\epsilon\acute{\iota}$ p,q.

Yet, he cannot mean that $\epsilon\acute{\iota}$ and $\acute{\epsilon}\pi\epsilon\acute{\iota}$ are equivalent in meaning, for he says clearly in other passages that $\acute{\epsilon}\pi\epsilon\acute{\iota}$ p,q implies that the proposition p is true in reality while $\epsilon\acute{\iota}$ p,q does not. He just observes, as has been observed above (pp. 110–11), that $\epsilon\acute{\iota}$ can sometimes be used where the causal could also be used.

C. Apollonius Dyscolus (from *Syntax*, Book III)³²

In the following passage Apollonius is discussing the origin of the names of the moods. Previous to this passage, he has dealt with the indicative and optative and shown that these names (“Indicative” and “Optative”) come from the meaning of the mood. But in the case of the subjunctive, the term subjunctive does not refer to a quality of its meaning, but to its syntax. That is, it occurs primarily in clauses that are subjected (i.e., subordinated) to another clause and it got its name from this property. Specifically here he is refuting the theory that the subjunctive should be called the dubative.

This naming theory is relevant to the discussion at hand in that Apollonius asserts that conditionals with $\epsilon\acute{\iota}$ and $\acute{\epsilon}\acute{\alpha}\nu$ have about the same degree of doubt. Furthermore, he is the only grammarian to say anything substantive about the conditional $\acute{\epsilon}\acute{\alpha}\nu$ p,q.

(29) Next it is necessary to speak about the subjunctive mood which some call dubative because of its meaning, just as also the previously mentioned moods have received their names. For it is clear that “If [$\acute{\epsilon}\acute{\alpha}\nu$] I ever write” and the like express a doubt concerning a future matter.

But perhaps someone will object that these [i.e., the moods] are not the source of the sense of doubt, but the accompanying conjunction is the source of doubt. Now, if it is reason-

³²Two very helpful works on Apollonius have recently appeared. They are: David L. Blank, *Ancient Philosophy and Grammar, The Syntax of Apollonius Dyscolus* (Chico, CA: Scholars, 1982); and a translation of Apollonius' extant books on syntax in F. W. Householder, *The Syntax of Apollonius Dyscolus* (Amsterdam: John Benjamins, 1981). Another helpful work discussing Apollonius' model of AN is R. Camerer, “Die Behandlung der Parikel AN in den Schritten des Apollonius Dyskolos,” in *Hermes* 93 (1965) 168–204.

able to name verb forms after the meaning of their conjunctions, then nothing prevents us from changing the names of the other moods also when they receive this meaning from their conjunctions. . . . Roughly speaking, “If [εἰ] you are talking you are moving” falls under the same doubt as “If [ἐάν] you walk you will move,” but “If [εἰ] you are walking” is not called dubative (3.123–24).

Apollonius’ point is that an indicative introduced by εἰ is just as dubative as a subjunctive introduced by ἐάν. Therefore the source of the dubative meaning is not the mood (subjunctive or indicative) but the conjunction (ἐάν or εἰ) is the source. This is important for evaluating Robertson’s model of Greek conditionals, because Robertson bases his classification of conditionals primarily on the distinctions between the moods accompanying the conjunction.

In the following passages, Apollonius gives us an interesting statement concerning the tenses which are grammatical with ἐάν p,q.

- (30) The above-mentioned mood [the subjunctive] with the conjunction ἐάν and its equivalents³³ is accompanied by the future or present tense. For example, “If [ἐάν] I study Dion will come,” and “If [ἐάν] I ever read, Tryphon comes.” For a past tense is ungrammatical (3.131).
- (31) It is necessary also to examine the syntax of the conjunctions, to determine why they refuse the endings of the past tense. For the syntax of “If [ἐάν] I was saying” is not acceptable, or “If [ἐάν] I have trusted”³⁴ and the like . . . It is evident that the cause of such ungrammaticality is the conflict of the past tense with the meaning of the conjunction. For they present a doubt about coming matters and also about those matters to be completed. . . .

³³One would like very much to know what Apollonius meant by “Its equivalents” (ἰσοδυναμούντων). He probably means the terms ἐάν, ἐάνπερ (“if indeed”) and the like, since Dionysius classes εἰ with εἴπερ, etc. However, would Apollonius include ὅταν (“whenever”) in this class? Both ἐάν and ὅταν are constructed by adding ἄν to another particle. ἐάν comes from εἰ + ἄν; ὅταν comes from ὅτε + ἄν. Both ἐάν and ὅταν take the subjunctive. ὅταν is frequently interchangeable with ἐάν. (For example, note that Stephanos uses ὅταν for ἐάν [quote (23) above].) In spite of these similarities, there are examples of ὅταν with the indicative, used to express an iterative sense, which cannot be written off as grammatical quirks. See for example: Polybius IV.32.5, Ignatius Eph 8:1, Exod 17:11 (LXX), Num 11:9 (LXX), 1 Sam 17:34 (LXX), Ps 119:7 (LXX), Mark 3:11, 11:19. Apollonius does not tell us what he thinks about such uses of ὅταν.

³⁴“If I was saying” (ἐάν ἔλεγον) is ἐάν plus an imperfect indicative verb. “If I have trusted” (ἐάν πέποιθα) is ἐάν plus a perfect indicative verb. One would have to use the conjunction εἰ instead of ἐάν to make these sentences grammatical in Greek. For ἐάν to be used grammatically, it must be used with a subjunctive, which is atemporal.

Because how can that which has happened be brought together with that which is coming? (3.137–138).

In the quote (30), Apollonius is saying that in $\acute{\epsilon}\acute{\alpha}\nu$ p,q, the proposition q cannot be in the past tense of the indicative. In the quote (31), he is saying that the proposition p may not be in the past tense of the indicative. This second statement seems a bit odd, because $\acute{\epsilon}\acute{\alpha}\nu$ is not supposed to have any form of the indicative in the protasis proposition p, no matter what tense.³⁵

The import of this passage for this investigation is as follows. Apollonius said earlier that $\epsilon\iota$ p,q and $\acute{\epsilon}\acute{\alpha}\nu$ p,q have about the same degree of doubt, but in this passage he seems to consider $\acute{\epsilon}\acute{\alpha}\nu$ p,q more dubitative in some way than $\epsilon\iota$ p,q, though he does not explicitly say so. For he says that there is a conflict between the meaning of the past tense and the meaning of the conjunction $\acute{\epsilon}\acute{\alpha}\nu$. But he and we both know that the conditional $\epsilon\iota$ can be constructed with past tense indicatives in either the protasis or apodosis. So, either $\acute{\epsilon}\acute{\alpha}\nu$ seems more dubitative to him in some way than $\epsilon\iota$, or he had not thought out thoroughly the consequences of his statement.

VII. CONCLUSIONS

It has been proven, and the ancient Greek grammarians agree, that a conditional of the form $\epsilon\iota$ p,q does not have a conventional implicature that the proposition p is true.

Conditionals of the form $\epsilon\iota$ p,q should not be translated across the board with the English causal "since p,q." Such a translation is appropriate in some cases, but is not in the majority. In the few cases that $\epsilon\iota$ p,q can be translated with "since p,q," the English "if p,q" will also be appropriate because, in these cases the context carries the implication that the proposition p is true. The use of English "since p,q" in these cases only adds redundancy.

Robertson's assertions are unclear. The way that he is interpreted by some today yields an erroneous analysis of conditionals. Robertson claims to be in the tradition of Gildersleeve; however, he went farther than Gildersleeve went. Gildersleeve never said that $\epsilon\iota$ p,q implies the

³⁵It is noted here that in Apollonius' day, significant diachronic changes in the syntax of conditionals were occurring. The conditional $\epsilon\iota$ was dying out and the conditional $\acute{\epsilon}\acute{\alpha}\nu$ was taking over. Not long after Apollonius' day, $\acute{\epsilon}\acute{\alpha}\nu$ came to be used with the indicative (see A. N. Jannaris, *An Historical Greek Grammar* [Hildesheim: George Olms, 1968] §§ 1772 and 1987). There are some examples of $\acute{\epsilon}\acute{\alpha}\nu$ used with the indicative in the NT (1 Thess 3:8, 1 John 5:15, Luke 19:40, Acts 8:31). These may be a reflection of this change. However, these grammarians were writing about the classical forms of their language, the language as they felt it should be. At any rate, diachronic factors are neglected in this paper for simplicity.

proposition p is true; some read Robertson as saying that it does. The ancient Greek grammarians disagree with Robertson and those in his tradition, but they do not disagree with either Goodwin's or Gildersleeve's claims. Goodwin and Gildersleeve were writing more about aspectual and temporal interpretations than about implications concerning truth.

Bible students should not be taught that $\epsilon\iota$ p,q means "since p,q ." Exegetes should be honest in their hermeneutics and should refrain from stating or implying in an exegesis of a passage that the Greek conditional $\epsilon\iota$ p,q itself implies that p is true. Nor should an exegete state that $\epsilon\iota$ p,q does not imply doubt like English "if p,q " can and that it would be better translated with "since p,q ." In those cases where one wishes to make a point that the proposition p is not being called into question, it should be demonstrated that the context implies that the proposition p is true or that the participants in the communication knew that p was true in fact.