The Interchange of Plain Velar and Aspirate in Kronos/Chronos: A Case for Etymological Equivalence

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THE INTERCHANGE OF PLAIN VELAR AND ASPIRATE
IN KRONOS / CHRONOS:
A CASE FOR ETYMOLOGICAL EQUIVALENCE

BY

ROBERTO PETER BONGIOVANNI

A master’s thesis submitted to the Graduate Faculty in Classics
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The City University of New York

2014
This manuscript has been read and accepted by the Graduate Faculty in Classics
in satisfaction of the requirement for the degree of Master of Arts.

Tamara M. Green

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Date Thesis Advisor

Dee L. Clayman

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Date Executive Officer

THE CITY UNIVERSITY OF NEW YORK
Abstract
THE INTERCHANGE OF PLAIN VELAR AND ASPIRATE IN KRONOS / CHRONOS:
A CASE FOR ETYMOLOGICAL EQUIVALENCE

by

Roberto Peter Bongiovanni

Advisor: Professor Tamara M. Green

Despite the current state of uncertainty regarding the etymology of Κρόνος, the equivalence long familiar to the ancients between Κρόνος and Χρόνος is still a moot point. Arguments denying their etymological equivalence can no longer firmly rely on linguistic arguments. It is therefore necessary to examine the validity of the time-honored interpretation of Kronos as the personification of Time. The solution to this problem is of considerable importance to Classical Studies, since it will not so much as contribute to a better understanding of the myth of Kronos, since the interpretation of Kronos as Time is already familiar from ancient sources, but it will demand a rereading of Hesiod’s Theogony to account for the possible relation of its myth and symbols to comparable myths and symbols of the transitioning ages of the world and consequent calendrical corrections.
“I quite admit that hitherto etymology has not helped us much to an interpretation of Kronos. There are certain deep strata of language which even etymology cannot reach, at least not with its present tools. But does it not show the importance of etymology if, as in this case, our acceptance of the original meaning of a myth would stand or fall at once with the etymology of a proper name, the name of Kronos?”

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## ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABSA</td>
<td>Annual of the British School at Athens</td>
</tr>
<tr>
<td>AbhLeipzig</td>
<td>Abhandlungen der (Königlich) Sächsischen Gesellschaft der Wissenschaften. Phil.-hist. Klasse</td>
</tr>
<tr>
<td>AbhMünchen</td>
<td>Abhandlungen der (Königlich) Bayerischen Akademie der Wissenschaften. Phil.-hist. Klasse</td>
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<tr>
<td>AJA</td>
<td>American Journal of Archaeology</td>
</tr>
<tr>
<td>AJT</td>
<td>American Journal of Theology</td>
</tr>
<tr>
<td>BASOR</td>
<td>Bulletin of the American Schools of Oriental Research</td>
</tr>
<tr>
<td>BCH</td>
<td>Bulletin de correspondance hellénique</td>
</tr>
<tr>
<td>CRAI</td>
<td>Comptes-rendus des séances de l’année-Académie des Inscriptions et Belles-Lettres</td>
</tr>
<tr>
<td>CQ</td>
<td>The Classical Quarterly</td>
</tr>
<tr>
<td>DBM</td>
<td>Smith, W., Dictionary of Greek and Roman Biography and Mythology (Boston, 1867).</td>
</tr>
<tr>
<td>FCG</td>
<td>Meineke, A. Fragmenta Comicorum Graecorum. (Berlin, 1839-1857).</td>
</tr>
<tr>
<td>FHG</td>
<td>Müller, K. Fragmenta historicorum Graecorum (Paris, 1841-1870).</td>
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</tbody>
</table>
GRBS  Greek, Roman, and Byzantine Studies
HSPh  Harvard Studies in Classical Philology
HThR  Harvard Theological Review
IG  Inscriptiones Graecae (Berlin, 1873-2012).
JIES  Journal of Indo-European Studies
JHS  The Journal of Hellenic Studies
KBo  Keilschrifttexte aus Boghazköy (Leipzig, 1916-1923).
KZ  Kuhns Zeitschrift = Zeitschrift für vergleichende Sprachforschung auf dem Gebiete des Deutschen, Griechischen und Lateinischen
LSJ  Liddell, H. G. and R. Scott. A Greek-English Lexicon
MSL  Mémoires de la Société de linguistique de Paris
NJbb  Neue Jahrbücher für das klassische Altertum, Geschichte und deutsche Literatur und für Pädagogik


Révue des études anciennes

*Rivista di filologia e di istruzione classica*

*Rheinisches Museum für Philologie*

*Revue de l’Histoire des Religions*

*Revue philosophique de la France et de l’étranger*

*Rivista di storia della filosofia*

*Sitzungsberichte der Preußischen Akademie der Wissenschaften zu Berlin*

*Supplementum Epigraphicum Graecum*

*Studi e materiali di storia delle religioni*


*Transactions and Proceedings of the American Philological Association*


*Quaderni Urbinati di cultura classica*
INTRODUCTION

The etymology of Greek Κρόνος is one of the most vexing and enigmatic problems in Classical studies. The popular Handbook of Greek Mythology (1928) by Herbert Jennings Rose puts it matter-of-factly, reflecting a consensus still upheld by Classicists: “attempts to give his name a Greek etymology have so far failed.”¹ The sixth edition of the same book repeats the statement unchanged.² By 1958, in the article “Divine Names in Classical Greece,” the author reflected a further development in thinking, saying, “Kronos is certainly not Greek in name.”³ Similar statements have appeared more recently in academic literature.⁴ Despite the current state of uncertainty, however, the equivalence long familiar to the ancients of Κρόνος and Χρόνος is still a moot point; the denial of their etymological equivalence can no longer firmly rely on linguistic arguments. It is therefore necessary to examine the validity of the time-honored interpretation of Kronos as the personification of Time. The solution to this problem is of considerable importance to Classical studies, since it will not so much as contribute to a better understanding of the myth of Kronos, since the interpretation of Kronos as Time is already familiar from ancient sources, but at least it will demand a rereading of Hesiod’s Theogony to account for the possible relation of its myth to a similar Egyptian myth explaining the origin of the luni-solar calendar. The usual explanation that the notional equivalence of Κρόνος and Χρόνος among the ancients was due to a popular etymology has never addressed whether Hesiod was aware of it.

¹ Rose 1928: 43.
² Rose 1958a: 35.
Therefore, accepting the likelihood, long acknowledged by Classicists, that the name is non-Greek, one can divide recent contributions to the problem of the etymology of Κρόνος into two camps: those that continue to search seriously for an Indo-European etymology (ignoring the many non-scholarly attempts that argue uncritically for etymologies already discredited), and those that argue for a Semitic one. To a third group may belong the so-called ‘Pelasgian’ etymology of A. J. van Windekens (1950), now discredited. The entire ‘Pelasgian’ hypothesis has been vehemently rebuked recently by Robert S. P. Beekes (2009).

For the present purpose, however, this will be treated under the rubric of Indo-European etymologies, since in the opinion of its author the prehellenic Aegean substratum language was a dialect of Indo-European not conforming to regular patterns of phonological development.

In the category of Semitic etymologies the most plausible recent studies take a cue from Heinrich Lewy’s (1895) identification of Kronos with the Punic god Baal Qarnaîm, whose sanctuary had been discovered in 1891 by Jules Toutain at Bu-Kourneîn, a mountain sanctuary near the site of ancient Carthage. A Latin inscription found there identifies this god as “Saturnus Balcaranensis,” a title of Baal Hammon, whose survival into Roman times is thus attested. Archeologists have interpreted the surname as a Latin transcription of the Phoenician compound Baal Qarnaîm. The epithet employs the plural form of the Semitic radical ِٰٰ qrn ‘horn, summit, ray of light’. Lewy’s translation, “Baal der Hörner”, responded to the iconography of Punic Baal Hammon assimilated to that of Zeus Ammon, which presented the god either flanked

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5 Windekens 1950: 108.
6 Beekes 2009: xiv.
7 Lewy 1895: 216.
8 Toutain 1892: 103.
9 Brown-Driver-Briggs 1906: 901.
by rams or bearing ramhorns on his own head.\textsuperscript{10} To this may be compared the “Baal des Deux Cornes” of Edward Lipiński’s more recent study.\textsuperscript{11} For Lewy the epithet confirmed the solar character of the god, since horns are a common metaphor for the rays of the sun in Semitic languages. The well-known mistranslation in the Latin Vulgate of \textit{Exodus} 34, 29 (קרן עֵרֶךְ פֶּנֶיהו) as “cornuta esset facies” is due precisely to the polyvalent semantics of this word in Hebrew. For this reason Michelangelo’s Moses bears horns on his forehead. A similar mistranslation in the case of \textit{Qarnâîm} is not surprising, as it is now generally recognized that the epithet does not connote the horns which would eventually come characterize the god (after late contamination with the cult of Zeus/Jupiter Ammon), but is purely toponymic in reference, indicating the remarkable situation of the sanctuary on the taller of the twin peaks of Bu-Kournein, and not any special characteristic of the god.\textsuperscript{12}

Despite this understanding, the old connection with the Semitic root \textit{qrn} still exerts an influence on some scholars, for it is sometimes casually mentioned as a possible etymon of Κρόνος. Although he has discarded the connection between Kronos and horns, and understands the epithet \textit{qarnaîm} correctly as a reference to the height of Baal’s mountain sanctuary, Abraham P. Bos (1989) has applied this signification to Kronos, arguing, “as far as a Kronos cult existed, it seems to have been practised ‘on the heights’.”\textsuperscript{13} This explanation may at first seem difficult to refute, especially in light of the testimony of Diodorus Siculus (3, 61) that in Sicily many

\textsuperscript{10} Xella 1991: 146, Bignasca 2000: 117.
\textsuperscript{11} Lipiński 1995: 421.
\textsuperscript{12} Xella 1991: 99: “L’épithète ne fait pas référence à d'éventuelles ‘cornes’ portées par le dieu (comme l’ont proposé certains qui songeait à Zeus Ammon), mais à la forme du massif montagneux (avec deux éperons) sur lequel le complexe sacré s’élevait.” Lipiński 1995: 421.
\textsuperscript{13} Bos 1989: 111.
mountain heights at the western end of the island were called Κρόνια. Max Pohlenz (1916) promoted the view that Kronos was an ancient weathergod enthroned on high, later supplanted by Zeus. The connection with mountain heights happens also to have been favoured by Paul Kretschmer (1950), for whom Kronos was a Phrygian mountain-god, although he derived the name Κρόνος from Greek ἄκρα, taking a cue from the Hesychian gloss s.v. Ἀκρίσιας: Κρόνος, παρὰ Φρυξίν. However, the main evidence for this claim is Pausanias’ report concerning the Elean custom of offering a sacrifice to Kronos on the summit of the Kronion hill at Olympia on the spring equinox. Martin P. Nilsson (1967) pointed out that the Kronia mentioned by Diodorus in Sicily depend solely on the identification of Kronos with Baal, and that the importance of the yearly sacrifice at Olympia is indicated not by the fact that it occurred on a hill, but by its performance specifically on the spring equinox. Furthermore, Nilsson argued from a firmly historical point of view that, because Kronos does not appear to have had a genuine ancient cult, and no statue of him existed except one at Lebadeia next to Zeus and Hera, and no temple was built except one by Peisistratus that he shared with Rhea, therefore “Er is mythologisch, nicht cultisch.” This consideration, namely that Kronos was always associated with Zeus, Hera or Rhea, suggests that his worship, as far as cult existed, was based entirely on

14 Diodorus Siculus III 61: μέχρι τοῦ νῦν χρόνου κατά τε τήν Σικελίαν καὶ τά πρός ἐσπέραν νεόντα μέρη πολλοὺς τῶν ὑψηλῶν τόπων ἀπ’ ἑκείνου Κρόνια προσαγορεύεσθαι.
17 Pausanias 6, 20, 1: ἐπὶ δὲ τοῦ ὄρους τῇ κορυφῇ θύουσιν οἱ βασίλεις καλοῦμενοι τῷ Κρόνῳ κατὰ ἵσημερίαν τὴν ἐν τῷ ἦρι, Ἐλαφίῳ μηνὶ παρὰ Ἡλείοις.
19 Ibid.
his role in myth, as much as this was familiar from the account in Hesiod’s *Theogony*. His role in
Greek religion is therefore an abstract one, representing a function closely tied to his role in
myth, which is hardly explained by a topographical designation.

The temptation to establish an etymology of *Krónos* on the Semitic root *qrn* is felt also by
Carolina Lopez-Ruiz (2006). For her, however, it is the meaning ‘horn’ that permits a
comparison with Semitic gods:

The Semitic root *QRN* that lies behind ‘horn’ and ‘thunderbolt’ seems to be shared by the
Greek language in the word *kéraς* -ατος for ‘horn,’ ‘extremity, top of a mountain’ (the
nasal disappeared with the resulting lengthening the previous vowel), and *kéraυνός*
‘thunderbolt.’ The association of both features, horns and thunderbolts, with the Semitic
storm god and with El before him (cf. the epithet ‘bull El’) makes one wonder whether
there is any possibility of a Semitic origin of this name.\(^{20}\)

It may be objected that the derivation of *kéraς* ‘horn’ and *kéraυνός* ‘thunderbolt’ from a
common etymon is very suspect. Whereas it is generally admitted that both Indo-European and
Semitic words for ‘horn’ point to a very ancient common root, which was probably shared by
both language groups at a time when their speakers lived in rather close proximity, having not
yet dispersed,\(^{21}\) the etymology of Greek *kéraυνός* is far from certain. Gesenius (1835) assumed
that it was cognate to Greek *kéraς*, Latin *cornu* and Hebrew יִנְג qeren,\(^{22}\) but most investigators
today posit connections with Indo-European stormgods, namely Lithuanian *Perkūnas*, Norse

\(^{20}\) Lopez-Ruiz 2006: 87. This appears earlier in the author’s doctoral dissertation, Lopez-Ruiz
2005: 175.

\(^{21}\) Gamkrelidze-Ivanov (1985: 19) believe Semitic *qrn*- is a borrowing from Indo-European;
they are followed by D’iakonov 1985: 130. Transmission in the opposite direction is argued in
Möller (1911: 121), who credited it to Helvigius (1620: 162).

fulmen, quod in cornu s. cunei formam a Cyclopibus cusum fingebant veteres.” Gesenius’
derivation of Semitic *qrn* from Indo-European anticipates Gamkrelidze-Ivanov (1985) by 150
years.
Fiśrgynn, and Vedic Parjanya.\footnote{West 2007: 243, Puhvel 1987: 235, Friedrich 1970: 134.} Moreover, not unlike the interpretatio Graeca which identified Kronos with Baal in Punic Sicily, the identification with El or his successors depends entirely on the purported etymological connection with Semitic qrn, consequently requiring the imaginary attribution of horns or thunderbolts to a god who never had any.

This etymology has fascinated scholars and non-scholars alike ever since it first appeared in 1640, in the *Explicatio Decalogi* (1640) of the Dutch Humanist Hugo Grotius. In his exegesis of the Ten Commandments he mentions a common custom among the Phoenicians for deifying their kings as stars after death:

regem Phoenicum ḨŇ Κρόνου, in eam stellam quam Graeci a Phoenicibus edocti Κρόνου, Latini Saturni vocabant, consecratum.\footnote{Grotius 1640: 72.}

*the Phoenician king Κρόνος was consecrated as that star which the Greeks, instructed by the Phoenicians, used to call the star of Κρόνου, and the Romans, that of Saturn.*

A comparison with the following fragment of Philo of Byblos clearly shows the source of Grotius’ information (*PE* 4, 16, 11):

Κρόνος τοίνυν, ὃν οἱ Φοινίκες Ἡλ προσαγορεύουσιν, βασιλεύων τῆς χώρας καὶ ἀστερον μετὰ τὴν τοῦ βίου τελευτην εἰς τὸν τοῦ Κρόνου ἀστέρα καθιερωθείς.

*Therefore, Kronos, whom the Phoenicians call El, ruled the country and later, after his death, he was consecrated as Kronos’ star.*

Philo is well known for his distinctly Euhemerist rationalizations of Phoenician stellar theology. In both passages Kronos is called a king (regem, βασιλεύων) and he is consecrated (consecratum, καθιερωθείς) as a planet (stellam, ἀστέρα). Philo, however, is not the source of what amounts to a Semitic translation of the name Κρόνος by ḨŇ qrn ‘horn’; this must be considered the interpretation of Grotius himself. It appears that, for him, Κρόνος is merely the
Greek transliteration of some Phoenician title for king or prince, just as the names מְלָכָה Moloch and בָּאָל Baal were originally merely appellatives. However, it must be remembered, as a clue to the origin of this fallacy, that Grotius lived at a time when Hebrew was widely believed to have been the most ancient language, and that all other languages derived from it. This error alone negatively determines the validity of Grotius’ etymology. However, before the discovery of Sanscrit and the subsequent development of Indo-European comparative philology in the late 18th century, this Semitic etymology was well received, especially in Britain, where anxiety among Anglican ecclesiastics over the rise of Catholic influence in Scotland found many occasions in their polemics for rather lively comparisons between Biblical tradition and the pagan culture of Greece and Rome.

*Sanchuniatho’s Phoenician History* (1720), by Richard Cumberland, is an English translation and commentary of the fragments of Philo of Byblos (extracted from the first book of Eusebius’s *Praeparatio Evangelica*), the authority of which was attributed to the figure now usually known as Sanchuniathon—the Phoenician priest mentioned by Philo as the source of his information. Cumberland’s synthesis of Biblical and pagan history incorporated the list of divine rulers that he found in the Phoenician theogony, taking Philo’s Euhemerism to the extreme in claiming that Kronos was none other than the Biblical patriarch Ham, the son of Noah:

as כְּרֶן Keren, from whence Grotius informs me that Cronus is deriv’d, doth import in Hebrew such an illustrious person as a King, which I will presume sufficiently known among the learned.26

Thus, it is evident how the erroneous etymology perpetuated itself in uncritical allegiance to authority.

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26 Cumberland 1720: 113.
By the nineteenth-century, it appears that this etymology had become popular, for it occurs in a book by Alexander Hislop, a minister of the Free Church of Scotland, called *The Two Babylons: Papal worship Proved to be the worship of Nimrod and His wife* (1862). Bill Ellis (2000) has described this book as anti-Catholic propaganda mixing “sketchy knowledge of Middle Eastern antiquity with a vivid imagination.” It occurs again as a point of contention in the public dispute between the Orientalist Robert Brown and the folklorist Andrew Lang. In *The Great Dionysiak Myth* (1877) Brown argued that Κρόνος was derived from the Semitic root קְרֵן *qrn*, as was the Dorian epithet of Apollo Καρνείος, mentioned by Pausanias (3, 13, 3) as the surname of Apollo at Sparta, where the festival Karneia was celebrated annually in his honor. He asserted that Greek Καρνείος is the personified zodiacal Ram and represents the circle of the ecliptic, naturally expressing the solar aspect of Apollo. It was Brown’s opinion also that Κρόνος was a cognate of Κάρνος ‘Ram’, the mythical seer, for whose murder Apollo demanded expiation from the Heraclidae during the Dorian migration into the Peloponessus. It may be objected here that, even if Karneios is associated with ram’s horns by means of the myth of Karnos, it does not necessarily follow that Kronos shares in the same relation. Brown too easily dismissed Lang’s objection in *Custom and Myth* (1884) that Kronos was never depicted wearing horns. Brown offered a linguistic defence for his connection between Κρόνος and Κάρνος by adducing Pausanias’ popular etymology (3.13.5), according to which Καρνείος was named after

27 Hislop 1862: 46.
29 Brown 1899: 53.
30 Lang 1884: 60f: “Horns are lacking in Seb and Il, if not in Baal Hamon, though Mr. Brown would like to behorn them.” Cf. Brown 1898: 115.
the cherry tree κρανεία, “transposing the rho according to ancient usage.” Thus, for Brown, there was no difficulty in deriving Κρόνος from Κάρνος, or vice-versa, since both, ignoring the vowels, equally preserved the Semitic radical q r n. Pressing the etymology even further, he argued that the sickle of Kronos, raised sometimes above the head, was a symbol for horns. Lang’s objection, however, has gone unanswered, for still no trace of keratic character has ever been verified for Kronos.

Paolo Xella (1991) has suggested that the error in interpreting the epithet qarnaim as the designation of a horned deity seems to have been motivated by the assimilation of Punic Baal to Amun (alias Zeus/Jupiter Ammon), the criocephalic god of Egyptian Thebes. Until recently it was assumed that Amun was identical to Baal Hammon, whose cult survived into Roman times under the guise of Saturnus Balcaranensis. Because of the avid promotion of the cult of Amun at the Siwah Oasis by the pharaohs of the 25th dynasty, the ram-headed god was particularly celebrated during the 7th and 6th centuries BC, his cult being established not only at the Ammoneion, but also among the Greeks at Cyrene. It was after a visit to the oracle of Zeus Ammon that Alexander the Great adopted the style of wearing a horned helmet, which image was so widely disseminated on coins. It is now clear that, despite the tendency to syncretism, Amun and Baal Hammon were in fact distinct divinities, each characterized by a specific personality and iconography, each worshipped at different cult sites.

Given the separate identities of these gods, it becomes easier to understand the interpretatio Graecae whereby Kronos was identified with Baal Hammon. A dedicatory

32 Xella 1991: 145.
inscription from El Hofra reads: KPΩΝΩΙ ΘΕΝΝΕΙΘ ΦΕΝΗΒΑΛ, ‘to Kronos and Tinnit, the countenance of Baal’. This clearly shows that Kronos stood as a surrogate for Baal Hammon, the usual partner of Tanit. Since the characteristic of horns can be ruled out as the basis for their assimilation, it becomes necessary to search for another explanation. A fragment from Sophocles’ *Andromeda* (F. 126 Radt) gives a hint as to the basis upon which the Greek themselves compared Kronos to the gods of foreign nations:

†ἡµιουτόν† κούρειον ἡρέθη πόλει·
νόµος γάρ ἡστι τοισὶ βαρβάροις Κρόνω
θυηπολείν βρότειον ἄρχηθεν(?) γένος.35

[...] a youth has been chosen for the city; for it is a custom among barbarians since ancient times to sacrifice a human being to Kronos.

Xella (1994) has examined an entire series of classical sources, starting from these verses of Sophocles down to the late compendia of Christian apologists, which attest to the role of this Phoenico-Punic ‘Kronos/Saturnus’ as the recipient of human sacrifices, sometimes of children, in the context of the bloody rites of the *tophet*.36 The role played by Baal Hammon in these sacrifices, whether real or imagined, fascinated Greeks and Romans, who in turn rejected them as both alien and cruel, judging them incompatible with the civilization to which they belonged; they therefore condemned and relegated them to a time long past (ἀρχὴθεν), to an age superseded and irrecoverable, as was the mythical age of the reign of Kronos. Therefore, the analogue that served as the basis of comparison was not any particular ritual, but the Hesiodic myth of Kronos swallowing his own children. We shall argue that the motif of eating and swallowing is an essential clue to the etymology of his name.

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35 Radt 1999: 157
We mention only incidently the unsuccessful attempt at an etymology by the Semitist Marvin H. Pope,\textsuperscript{37} for whom the equivalence of Kinyras—legendary king of Byblos and Paphos, and father of Adonis—with the Hittite god Elkunirša (a name combining El with $qn$ ‘$r|$—the Ugaritic appellative ‘Creator of the Earth’) suggested a possible connection with Kronos. This was disproved by Jean-Paul Rey-Coquais, who rejected the idea that the appellative of El $qn$ ‘$r|$ was a version of the name Κρόνος. An inscription from the Roman era on a sculpture from Balbek bears the name Κόνναρος (Qonera is attested in an Assyrian version at Palmyra), which is derived from the same Ugaritic appellative; there is, however, no connection to Kronos, as was thought at first, but to a Poseidon-like alter-ego of El.\textsuperscript{38}

A challenge to the foregoing arguments against an etymology based on the Semitic root קרנ $qrn$ is presented by the fact that this same root has produced the Arabic word قرن $qarn$, which, in addition to the usual meaning ‘horn, ray of light’, means also ‘generation, decade, century, age’.

In light of this semantic development, one would be tempted to consider the root as a possible source even for Greek χρόνος ‘time, lifetime, season, year’, if not actually Κρόνος, except that this meaning reflects a late development in Arabic attested only in the Islamic period.\textsuperscript{39} There is no support for this meaning in ancient Hebrew or Phoenician, although the qualities of endurance and steadfastness associated with the Semitic conception of time are expressed by other divine epithets. Accordingly, the Phoenicians addressed their chief god Baal with the epithet חלד $cheled$, expressing duration as of something steadfast and abiding. Conrad von Orelli (1871)

\begin{footnotes}
\begin{itemize}
\item \textsuperscript{36} Xella 1994: 172.
\item \textsuperscript{37} Pope 1955: 53f.
\item \textsuperscript{38} Rey-Coquais 1978: 365ff. Lipiński (1995: 60) explains the assimilation of the two gods by reference to the Homeric epithet γαίηόχος of the Greek god, ‘he who shakes the earth’, ‘master of the earth’.
\item \textsuperscript{39} Steingass 1884: 833, Tayyara 2013: 99ff.
\end{itemize}
\end{footnotes}
demonstrated how this Baal is the same as the Chaldean Baal, which the Babylonians, corresponding fully, appropriately modified as ‘Belitan’, combining the epithet ἔθαν ethan ‘enduring’. His alias among the Phoenicians, called דִּלְלוּ בֵּשֶׂ bel cheled, incorporates a calque of the related epithet ethan in respect of their shared quality of perpetual duration and dominion. Likewise, in Numidian inscriptions he is called melek ʿolām ‘eternal king’. It is an easy step from the conception of time as an inexorable, eternally prevalent power of nature to the worship of a time-god, whose personification manifests itself as a power of destructive action with an ability to outlast everthing. Hubal, the chief god of the ancient Arabs, who was worshiped at the Qaaba and later identified with Saturn, appears to have been just such a time-god. Alexander Polyhistor, relating material erroneously ascribed to Eupolemus, identifies this Bel as the Semitic Saturn or Kronos. Theophilus of Antioch, among others, asserts that Kronos and Bel are the same, reporting that in Anatolia the name ‘Kronos’ was used interchangeably for Bel or Bal, as no dictinction was recognized between them.

Since these ideas grew easily out of a particular view of nature, it is not surprising that what was established among early Semitic peoples should just as readily have been formed

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40 Orelli 1871: 45.
41 Gesenius 1837: 197, 202.
43 Theophilus Antiochenus, Ad Autolycum 3.30: Τού δὲ Κρόνου καὶ τοῦ Βῆλου συνακαισάντων ὄμοσα, οἱ πλεῖοι οὐκ ἐπίστανται τίς ἐστίν ὁ Κρόνος ἢ τίς ὁ Βῆλος. ξνοι μὲν σέβονται τὸν Κρόνον καὶ τούτον αὐτὸν ὀνομάζουσι Βήλ καὶ Βάλ, μάλιστα οἱ οἰκούντες τὰ ἀνατολικὰ κλίματα, μὴ γινώσκοντες μήτε τίς ἐστίν ὁ Κρόνος μήτε τίς ἐστίν ὁ Βῆλος. παρὰ δὲ Ἑρωμαίου Σατοῦνος ὀνομάζεται· οὐδὲ γὰρ αὐτοὶ γινώσκουσιν τίς ἐστίν αὐτῶν, πότερον ὁ Κρόνος ἢ ὁ Βήλος (Otto 1876: 270). Cf. Joannes Chrysostomus, In Psalmum CV, 673: Τούτον δὲ φασὶ τινες Κρόνον καλεῖσθαι τῇ Ἐλλαίῳ φωνῇ· λέγεται δὲ καὶ Βήλ (MPG 55, 663); Procopius, Commentarii in Isaiam 96: Βήλ δὲ καὶ Ἐλληνες καλοῦσι τὸν Κρόνον, ὃ δὴ προσήγον οἱ πλείστοι θυσίαν τὰ φύλατα (MPG 87.2: 2437); Photius, Bibliotheca 242, 343b: Ὅτι Φοίνικες καὶ Σύροι τὸν Κρόνον Ἡλ καὶ Βήλ καὶ Βωλάθην ἐπονομάζουσιν (Henry 1971: VI 45).
elsewhere. And so, for example, the Greek funerary epigram on Laertes’ grave (*Anthologia Graeca* 7, 225) employs the metaphor of the sickle as appropriate to the implacably destructive effect of time on nature:

Ψήχει καὶ πέτρην ὁ πολὺς χρόνος, οὐδὲ σιδήρου
Φείδεται ἄλλα μη πάντ’ ὀλέκει δρεπάνη.\(^{44}\)

*The great expanse of time wears away even stone, nor does it spare iron, but with one sickle destroys everything.*

The image of ‘time’s teeth’—the *dentes aevi* that so vividly personify Ovid’s *tempus edax rerum* (*Met.* 15, 234)—is probably borrowed from Simonides’ symbol of time’s corrosive effect on seemingly permanent things (Fr. 13 West):

ὁ τοι Χρόνος ὀξὺς ὀδόντας,
καὶ πάντα ψήχει καὶ τὰ βιαῖται.\(^{45}\)

*Surely Time is sharp-toothed, it crushes everything, even the hardest things.*

In Hesiod’s *Theogony* Gaia gives Kronos a saw-toothed sickle, ἀρπη καρχαρόδους (179), with which he castrates his father Ouranos. This is the same weapon used by Marduk in his battle against the dragon Tiamat in the *Enuma Elish*, the Babylonian Epic of Creation.\(^{46}\) The interpretation of this myth as an account of the transition to a new world-age, with the sun moving into Taurus, and the consequent reform of the calendar, was advanced by Alfred Jeremias (1911). This does not mean that Marduk is equal to Kronos because they both bear the toothed-sickle as a weapon, but it does imply that their roles at divinities presiding over the transition from one world-age to another are equal.

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\(^{44}\) Beckby 1965: II 138.

\(^{45}\) West 1972: II 116.

\(^{46}\) Langdon 1923: 131, 147, 177.
Older than the linear conception of time as represented by a flowing river is the idea of time as a cycle, whose regular rhythm was measured by the recurrent period of month and year. The Ouroboros symbol of a serpent biting its own tail is therefore a fitting representation of the ambiguity inherent in the turning of ages, as it shows the separation of the old from the new, while combining the ending with the beginning. Such symbols or personifications of the turning of time are often ambivalent, dualistic, or double-faced; like Janus, they look forward and backward at the same time. The sickle, being a universal implement, the use of which in agriculture is specifically determined by the circling of the calendar, is also a symbol of the periodicity of the year or season, just as it is for the cyclical change in the shape of some celestial bodies, such as with the phases of the moon or Venus that sometimes look sickle-shaped.

The similarities between the Greek myth of Ouranos and Gaia and the Egyptian myth of Seb and Nut have been pointed out by Peter Walcott (1966) and more recently by Thomas Macho (2003). Plutarch (De Iside et Osiride, 355d) testifies that the Greeks saw in the parents of Osiris their own deities Kronos and Rhea. Just as in the Egyptian myth, the Theogony begins with a love affair between heaven and earth. The consequence of this affair is described just as in Hesiod’s epic: the goddess can no longer give birth. However, her infertility is not due to a phallus blocking the birth canal, as in the Greek myth, but the envy of the sungod Ra. The lifting of the blockade can only be achieved by the god Thoth, who—as lord of the calendar and writing—plays dice with the moon and wins, reclaiming the five Epagomenal days, on which Nut’s children—Osiris, Horus, Seth, Isis, Nephthys—can be born. The envy of Ra is replaced by the jealousy of Ouranos, and the agency of Thoth is taken over by Kronos. Finally the children of Gaia are born, relieving her of a prolonged pregnancy. The addition of 5 epagomenal days in the
Egyptian myth represents a solar correction of the old lunar calendar of 360 days. Again, one sees the myth of Kronos associated with important calendrical reforms, which suggests that his intimate connection with timekeeping may be reflected in his name. The phonetic difference between χρόνος and Κρόνος should not be a necessary obstacle to their common derivation.

It is worth noting that Rose’s conclusions about the impossibility of an etymological connection between Kronos and Chronos were very much in line with the prevailing theory of his time. L. R. Farnell argued that, since no satisfactory Greek etymology for the name Κρόνος yet existed, he must have been the god of the prehellenic population of Greece. Pohlenz observed that the sporadic occurrence of the cult of Kronos in Greece is contradicted by its wide dissemination both inside and outside Greece. He concluded that the centers of worship attested in ancient literature, and the mythical accounts of the time when Kronos was sovereign, offer evidence for a cult of considerable antiquity; and so Kronos cannot have been the deity of any single village or tribe, whose cult became gradually more widespread. Rather, he was the god commonly worshipped in Greece before the historical incursion of the Hellenic tribes.

Therefore Farnell judged as a linguistic impossibility the ancient connection between the name of Kronos and the Greek verb κραίνω, ‘accomplish.’ He denied the validity of a long-standing etymology, which became a *topos* of Athenian tragedians, and which we regard as popular in

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48 Farnell 1896: I 23ff.
49 Pohlenz 1916: 556f., 1922: 1986: “er (Κρόνος) ein Gott der vorgriechischen Bevölkerung war, dessen Verehrung sich hie und da in einfachster Form erhalten hat”. Cf. Farnell 1896: I 30: “The worship of Cronos must have been far more widely diffused throughout the primitive land of Greece than the records attest; else we could hardly explain how the affiliation of the primeval Aryan Zeus to this strange dispossessed god came to be an idea so widely prevalent among the Hellenic people before the time of Homer.”
origin. The Homeric collocation of these lexemes ἔπεκραίαινε Κρονίων (B 419) is seen in Aeschylus, in the *Prometheus Vinctus* (910-911), where the curse invoked by Κρόνος, as he falls from his ancient throne, will one day come to fulfillment, κρανθήσεται.51 The words occur together again in the chorus of Sophocles’ *Trachiniae* (126-130), where Zeus the king, called Κρονίδης, bringing all things to completion, πάντα κράινον, reserves a painful lot for mortals: sorrow and joy encircle all, like the revolving constellation of the Bear.52 When Cornutus, writing in the Neronian era, makes an etymological connection between Κρόνος and κραίνω, he is apparently following a by-then-well-known tradition.53

Farnell does not offer a solution; he was too keenly aware of the scientific limitations of philology, especially in the field of ancient Greek religion, to have surrendered to the temptation of speculating on yet another etymology. Still, the progress of historical linguistics in the nineteenth century, allied with advances in the history of religions, had prepared the field for many alluring identifications, although these generally have failed to supply cogent proofs of their validity. The resultant dissatisfaction led the great linguist Albert Carnoy to regret that “much disappointment awaits him who endeavors to discover the names of the primitive gods.”54 Conscious of the manifold errors that one is bound to make in such a study, one does well to heed Herodian in his warning: οὐ δεῖ ἐπὶ τῶν κυρίων ἐτυμολογίας λαμβάνειν, “one must not assume etymologies for the gods.”55

51 *PV* 910-911: “πατρὸς δ’ άρά / Κρόνου τότ’ ἥδη παντελῶς κρανθήσεται, / ἥν ἐκπίτνων ἠράτο δήματοι θρόνον.”
52 *Trach.* 126-130: “ἄνάλγητα γὰρ οὔδ’ ὁ πάντα κραίνων / Βασιλεύς ἐπέβαλε θνατοῖς Κρονίδας· / ἀλλ’ ἐπὶ πῆμα καὶ χαρὰ πάσι κυκλοῦσιν, οἶον / Άρκτου στροφάδες κέλευθοι.
53 *Compendium*, 7: “ἡ τῆς τῶν ἀκλόν γενέσεως τάξις, ἦν ἐφαμεν ἀπὸ τοῦ κραίνειν Κρόνον εἰρήθαι (= Lang 1881: 7f.).
54 Carnoy 1917: 58.
55 *EM* 66, 16 = fr. 371 Lentz (Lentz 1867: 288).
Concerning the etymology of Κρόνος a great deal has been written in fidelity to the notion that, if an etymology could be established, it would be a key to understanding the essence of the god. Usually, in order to determine the meaning of a name, a researcher’s procedure is first to establish a series of connections with cognate terms or variants, whether these are attested textually or merely conjectural formations. Next, by comparing them, he attempts to reconstruct a diachronic series of derivations that may reflect historical development or geographic diffusion. Naturally, when the series is found to cross from one language group into another as a supposed consequence of cultural interchange, the resultant relation is expected to obey the established laws of phonological development in the direction of transmission. When this comparative linguistic approach is successful, one may gladly claim to have distilled the essence of a name, as assuredly is the case with Ζεύς, whose name is universally admitted as deriving from Proto-Indo-European \(^{*}d\ddot{e}u\ddot{s}\) meaning ‘daytime sky’\(^{56}\). The case of Zeus, who is etymologically transparent and clearly represented in myth and religion, poses no problem; the diffusion of his cult may be mapped with certainty over the entire area of Indo-European habitation.

Often, however, the relation between a theonym and its reference is, if not contradictory, at least paradoxical. Callimachus, for example,\(^{57}\) rejected the Cretan Zeus, because he could not bring himself to believe the local legend that Zeus had died and was buried in a cave there. This Zeus, if not distinctly a chthonic deity, is surely something other than Olympian. The incongruity is a reliable sign that syncretism with a prehellenic substratum has proceeded. Consequently, it is not always sufficient merely to arrive at the etymological meaning of a divine name, especially

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\(^{56}\) Pokorny 1959: 184: “göttlich verehrter Himmel und leuchtender Tag.” The reconstruction is from the \textit{IEW}, deriving from the verbal stem \(^{*}dei-\) (183): “hell, glänzen, schimmern, scheinen.”
for a figure whose main attributes, as represented in mythological, iconographic, or cultic evidence, are plainly alien. The name of Zeus in this case appears to have been conferred by Greeks on an original prehellenic deity of Crete, later to be distinguished by the surname *Kretagenes*. Thus, just as the reality of syncretism does not prevent the denomination of a prehellenic deity with the Greek name of Zeus, so it must not preclude the possibility of a Greek etymology for the name of Kronos—a deity who, as Farnell and Kretschmer surmised, belonged originally to a Phrygio-Cretan substratum population. Admittedly, any attempt to define ancient deities with the aid of philology alone is necessarily open to controversy and rarely leads to definite conclusions; nonetheless, philology cannot be ignored, for it remains an important instrument of historical reconstruction.

In the case of Κρόνος numerous etymologies have been proposed since antiquity, none of which has ever been universally accepted by scholars. Due perhaps to the remote antiquity of the god or to the extreme paucity of genuinely archaic evidence for his cult, these proposals have necessarily been speculative and deductive, contrived either to support philosophical speculations (as in Plato’s *Cratylus*, or in the exegeses of later Stoics and Neoplatonists), or to emphasize a single specific aspect of his figure (such as his supposed agricultural character), without actually addressing the totality of his representations. Ideally, the correct etymon, when

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57 *In Iovem* 6-9
correctly interpreted, should readily lend itself to explaining, without specious argumentation, the entire complex of representations associated with his name. Moreover, a concomitant development in its semantic field should account also for the evolution of his figure, as reflected in the historical development of myth, symbolism, and cult. Consequently, if a situation should present itself of total correspondence in name, figure and function, then one could be reasonably certain that the correct etymology has been discovered.

Concerning the ancient confusion of Kronos and Chronos, the communis opinio regards the latter as an allegorical interpretation of the former, having irresistibly suggested itself, by virtue of an accidental phonetic similarity of the two words, to the writers of the quasi-mythical cosmogonies after Hesiod in the transition from mythos to logos. According to this view, these words are etymologically unrelated. With the development of Indo-European comparative linguistics in the nineteenth century, there emerged a challenge to the long accepted etymological equivalence of Κρόνος and Χρόνος, despite the tradition dating from antiquity affirming their identity. Farnell’s opinion, as already mentioned, was that the equivalence of Κρόνος and Χρόνος was “an impossible philological equation.” Jane Harrison equivocated, concurring with Farnell that “Kronos and Chronos were of course in meaning, as in form, entirely distinct to begin with,” and at the same time not demurring in calling Kronos “the Accomplisher of the full

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circle of the year." In 1916, Max Pohlenz wholeheartedly declared that the question of etymological identity had once and for all been laid to rest. Even Chantraine regarded the analogy between Κρόνος and Χρόνος as having arisen out of a popular etymology “dépourvu de toute valeur linguistique.” These opinions underpin the consensus that still prevails in academic circles. It is founded, however, on the assumption that one or the other of these words cannot be Indo-European, since the recognized laws of Indo-European phonology do not allow for the interchange of κ and χ. The flaw here lies in the fact that it does not account for dialectal variation and the very real phenomenon of substratum influence on Greek.

While recognizing the impossibility of definitively proving their etymological equivalence with the present state of evidence, this thesis will attempt to make a case for their common origin in proto-Greek. Chapter 1 will examine in some detail the linguistic problems associated with the consensus view, and will consider alternative theories indicating a way beyond the impasse to which traditional comparative linguistics had led. Chapter 2 shall survey how the ambiguity of these words was treated in ancient writers, arguing that the fact that the two words are distinct lexemes cannot be used as an argument against their etymological affinity.

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63 Harrison 1912: 497, citing Sophocles’ Trachiniae (126-130) in support.
64 Pohlenz 1916: 549: “Die Gleichung von Κρόνος und Χρόνος, die schon die Orphiker zu tiefen Spekulationen veranlaßt hat, ist von der Sprachforschung ein für allemal erledigt.” Other etymologies proposed at this time were from κραίνω (Pott 1869: II 143, Curtius 1879: 154f.).
65 Chantraine 1968: 586. This verdict is echoed also by the Semitist M. H. Pope (1955: 54): “The ancient folk etymology which considered it a variant of chrónos is, of course, impossible.” Cf. Lopez-Ruiz 2006: 87 n.32: “The two names, Kronos (Κρόνος) and Chronos (Χρόνος) are etymologically unrelated. While the latter is the common Greek word for “time,” the origin of the name of Kronos is unknown.”
CHAPTER ONE: LINGUISTIC BACKGROUND

1.1 Interchange of Tenues and Aspirata

The current academic consensus denying the equivalence of Κρόνος and Χρόνος may be traced back to Johannes Adolf Overbeck’s *Beiträge zur Erkenntnis und Kritik der Zeusreligion* (1865),\(^{66}\) which was a response to his teacher Friedrich Gottlob Welcker’s *Griechische Götterlehre* (1857). Welcker had argued that, since the interchange of κ and χ was a regular feature of ancient Greek dialects, Κρόνος was originally only a dialectal variant of Χρόνος.\(^{67}\) Though he admitted that Welcker’s thesis was plausible on purely theoretical grounds, Overbeck objected that, despite the few analogies adduced in support of the phenomenon of interchange of aspirated and unaspirated consonants (Wechsel von Aspiraten mit Tenues), there was virtually no other philological evidence for it.\(^{68}\)

As early as 1811, in the sixth edition of Philipp Buttmann’s *Griechische Grammatik*, the assumed equivalence of Κρόνος and Χρόνος had already been taken as evidence for this phenomenon in ancient Greek dialects. He asserted that χρόνος emerged from the older form κρόνος by virtue of the aspirating influence of ρ on the preceding consonant, as is evident, for example, in θράσσω, a shortened form of ταράσσω, or in φροίμιον instead of προοίμιον.\(^{69}\) However, this theory was considered unlikely at the time.\(^{70}\) Despite the publication in 1875 of Wilhelm von der Mühl’s dissertation *Ueber die Aspiration der Tenues vor Nasalen und Liquidis im Zend und im Griechischen*,\(^{71}\) the theory was rejected in Gustav Meyer’s *Griechische
gotterlehre*.

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\(^{66}\) Overbeck 1865: 64.
\(^{67}\) Welcker 1857: I 140ff.
\(^{68}\) Overbeck 1865: 64.
\(^{69}\) Buttmann 1811: 37.
\(^{70}\) Pott 1860: 175 n.
\(^{71}\) Mühl 1875.
Grammatik (1896) as a phenomenon not consistent enough in Greek to be considered a general tendency.\textsuperscript{72}

Nevertheless, the idea of an aspirating influence from the consonantal environment indicated the way for further explanations. In 1854 Adalbert Kuhn demonstrated more persuasively that the interchange of aspirated and unaspirated consonants in Greek should be compared with the tendency in Sanskrit to drop an original initial sounding /s/ (the Indo-European s-mobile), thereby causing the succeeding unvoiced consonant to aspirate.\textsuperscript{73} This led Leo Meyer, in an article published in Kuhn’s Zeitschrift in 1857, to compare Greek χρόνος/κρόνος ‘time’ with Sanskrit kṣaṇa, “instantaneous point in time, instant, twinkling of an eye, moment,” both of which, he argued, reflect an original group sk-r, although Sanskrit lost the latter sound, while Greek sought to avoid the harshness of this cluster by dropping the /s/.\textsuperscript{74} Many Greek words however retain initial σ and exhibit its aspirating influence all the same. In Homer, for instance, we find κίδναμαι ‘spread’, but more frequently, without the loss of initial σ, σκίδναμαι without aspiration.\textsuperscript{75} However, its cognate σχίζα ‘splitter, firewood’ shows the aspirating influence of σ and still retains it. If then the loss of σ was unnecessary to account for the aspiration of the following consonant, it is questionable that κρόνος/χρόνος should have dropped a conjectured initial σ at all. It thus appears that the only motivation for positing an original initial σ for these words was to permit the comparison with an assumed Sanskrit cognate.

\textsuperscript{72} Meyer 1896: 284: “man mit Unrecht in einer benachbarten Liquida oder Nasalis die Ursache der Aspiration hat erkennen wollen.”

\textsuperscript{73} Kuhn 1854: 326f.

\textsuperscript{74} Meyer 1857: 176, Meyer 1859: 60. Cf. Bopp 1867: 99, Monier-Williams 1899: 324 (s. v. kṣaṇa)
By the end of the nineteenth century it became clear that, even in the cases where κ and χ, or even π and φ, appear alternately after σ, and where the aspirated consonant can usually be derived from the unaspirated, frequently the priority of the aspirate had to be recognized. Therefore, σχ and σφ became σκ and σπ, as in Modern Greek, thus generating the following doublets, as given by Gustav Meyer:

\[ \sigma \varsigma \text{ and } \sigma \epsilon l \varsigma \text{ ‘ribs of beef’, and } \sigma \kappa l \epsilon \varsigma \text{ ‘leg’}; \sigma \chi e r a \phi o \varsigma \text{ and } \sigma k e r a \phi o \varsigma \text{ ‘blasphemy’}; \]
\[ \sigma \chi e n \delta u \lambda \text{ and } \sigma k e n \delta u \lambda \text{ ‘tongs’}; \alpha \sigma \phi \alpha \lambda \varsigma, \alpha \sigma p \alpha \lambda \varsigma \text{ and } \sigma p \alpha \lambda \varsigma \text{ ‘a blind rat’}; \]
\[ \alpha \sigma \phi \alpha \rho a \gamma o \varsigma \text{ and } \alpha \sigma p \alpha \rho a \gamma o \varsigma \text{ ‘asparagus’}; \sigma \phi \gamma \gamma o \varsigma \text{ and } \sigma p \gamma \gamma o \varsigma \text{ ‘sponge’}; \sigma \nu r \alpha \varsigma \text{ and } \sigma p u r \alpha \varsigma \text{ ‘a ball of dung’}; \sigma \nu r \iota \varsigma \text{ and } \sigma p u r \iota \varsigma \text{ ‘a large basket’}; \sigma p o n \delta u \lambda \eta \text{ and } \sigma p o n \delta u \lambda \eta \text{ ‘beetle’}; \beta \sigma \phi \rho o \varsigma \text{ and } \beta \sigma p o r o \varsigma \text{ ‘the Bosporus’}. \]

It is noteworthy that each of these words pertains to animals, fruits and vegetables, products of domestic culture, or place-names. In these cases, even though the etymologies are altogether doubtful, priority is given to the aspirated consonant. Therefore, at the turn of the century scholars were led to conclude that the sounds \( \chi \), \( \theta \), \( \phi \) originated partly from the Indo-European unvoiced aspirates (Tenues Aspiratae), and partly, by a process not yet explained, from the Indo-European voiced aspirates (Medialaspiraten). It was not yet accepted by mainstream scholarship that any influence besides Indo-European was at work behind Ancient Greek.

In 1914 Paul Kretschmer asserted in the pages of Glotta that the Greek mutation of the Indo-European voiced aspirates into unvoiced aspirates was most likely promoted, if not caused, by the presence of unvoiced aspirates in the language of the prehellenic population with whom

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75 Homer uses both σκίδναμαί (Α 487, Λ 308, Π 375, Τ 277, Ω 2, α 274, β 252, 258, η 130) and, less frequently, κίδναμαί (Θ 1, Ψ 227).
76 Meyer 1896: 279.
77 Meyer 1896: 280.
the Hellenic tribes had assimilated. A clear analogue of this process of assimilation, he argued, was to be found in the phonology of Armenian, which possesses these aspirates in common with Greek, and seems thus to have been influenced by a substratum language (called by him “Caucasian”), which also possessed them.

1.2 Aegean Substratum

The alternation not only of aspirated and unaspirated consonants, but also of voiced and unvoiced consonants, is a phenomenon common to Greek and Latin, but often unexplained by the laws of Indo-European phonology. In 1908 Antoine Meillet admitted, “il est contraire à une saine méthode étymologique de vouloir expliquer tout le vocabulaire en grec et en latin par l’indo-européen.” Since many words in Greek, Latin, Armenian, and Iranian were suspected of having a non-Indo-European etymology, and since not every coincidence in the vocabularies of Greek and Latin could be reduced to a relationship dating back to the time of proto-Indo-European unity, greater interest was then directed to the extensive interchange of Mediterranean cultures in the period of the widespread migrations of the Bronze Age. The immigrant speakers of the Indo-European dialects, which would eventually become Greek and Latin must have acquired the property of the peoples they had supplanted, and therewith took their names. The influence of these pre-Indo-European populations was felt not merely in the number of loanwords that entered into the new idiom, but particularly in the case of Greek, the Aegean substratum language was thought to have so thoroughly infiltrated the phonological system of proto-Greek that the occurrence of linguistic doublets, such as those given above, could no

78 Kretschmer 1914: 77 n. 1.
79 Meillet 1908: 164.
longer be attributed to irregular change, but was now seen to be the consequence of a general tendency.

In 1927 J. C. Schrijnen, expanding on previous studies by Antoine Meillet, Albert Cuny, and Karel Oštir, noticed that specific alternations in Latin and Greek of aspirated and unaspirated, or voiced and unvoiced, consonants were shared with Paleo-European languages. He explained Meyer’s series of phonetic doublets in Greek (to which he added the following: πύργος φύρκος ‘tower, wall’; φλόμος πλόμος ‘mullein’; χρέμυς κλέμυς ‘a fish’; θρυγονάω τρυγονάω ‘tap at’) as a general effect of what he called “infiltration Alarodienne.” The term “Alarodian,” deriving from Ἀλαρόδιοι (Herodotus VII 79 gives it as the name of an ancient Anatolian people), refers generally to a widespread family of prehistoric languages, of neither Indo-European nor Semitic stock, which had originated in eastern Anatolia and spread westward into Greece and Italy before the period of major dispersal of the Indo-European tribes. This linguistic substratum was thought to underlie most of the historical languages spoken on the coasts of the Mediterranean.

Contemporaneously, Josef Karst developed his contentious linguistic theory that Basque and Armenian were genetically related in light of definite lexical and morphological similarities. Since Armenian belongs to the Indo-European family of languages and Basque does not, any connection between them, according to Karst’s thesis, could only be due to a common Alarodian substratum in proto-Basque and proto-Armenian. With the publication in 1948 of Mythologie arméno-caucasienne et hététo-asianique Karst posited far-ranging connections between Kronos and the gods of several other ethnic groups across Europe.

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81 Schrijnen 1927: 49.
Anatolia, Africa, and the Levant, though his method may be criticized as wildly associative. Consequently, his connections between Kronos and the Celtic gods Grannus and Cernunnos, the Punic Baal Qarnaim, and Greek Geryon, are tantalizing, but irredeemably quixotic.

Karst’s essential point, however, namely that Kronos belonged originally to a Mediterranean substratum culture, was made with more precision by Kretschmer, who took a cue from Maximillian Mayer’s article in Roscher’s Lexicon. He asserted, on the basis of the aforementioned gloss from Hesychius’ Lexicon, that Kronos had a Phrygian origin, arguing in “Die phrygische Episode in der Geschichte von Hellas” that Armenian influence via Phrygian expansion into the Aegean basin was responsible for the diffusion of the cult of Kronos into Greece, that Akrisias must have been a surname for Kronos synonymous with Zeus’ epithets ἀκραῖος and ἐπάκριος, and that, like Zeus, Kronos dominated heights (ἀκρα) and was worshiped on them. This was consistent with the ancient testimony by Diodorus Siculus (3, 61) about the cult of Kronos at Olympia and in Sicily. Furthermore, Kretschmer interpreted the figure of Akrisios in the Perseus saga as a Greek Doppelgänger of Kronos: the story of the jealous king of Argos, who caused his daughter Danae to be shut in an ark with her infant son Perseus, and set them both out to sea only to make landfall on Seriphos, he argued, was merely a variant—mixing historical legend with fairy tale motifs—of the Hesiodic myth of Kronos, who—out of a perverse desire to maintain his power by swallowing his children—caused Rhea, pregnant with child, to escape from him in order to give birth to Zeus secretly in a cave on Crete.

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82 Karst 1928.
83 Karst 1948.
84 Mayer 1894: 1529ff.
85 Kretschmer 1950: 177ff.
Since the discovery of the Hittite royal archives at Boğazköy, Turkey—the site of the ancient Hittite capital Hattuša—and the publication in 1943 of the cuneiform tablets found there, the text known as “Kingship in Heaven”\(^\text{86}\) (dated roughly to the period 1400-1200 BC) has been generally acknowledged to be a Bronze Age antecedent of the Succession Myth in Hesiod’s *Theogony*.\(^\text{87}\) The succession of divine generations in the cuneiform text corresponds closely to that narrated in the Hesiodic text. Except for the first god Alalu, who has no Hesiodic analogue, each successive generation has a Hellenic *doppelgänger*. Anu, who is the Akkadian version of the Sumerian sky-god An, corresponds to Ouranos. After nine years in the kingship Anu is succeeded by Kumarbi, corresponding to Kronos, who bites off and swallows his genitals. Strange monsters are born from Anu’s semen inside the belly of Kumarbi, just as Ouranos’ semen and blood spawn the horrific Erinyes and Giants. Finally, the Storm-god, corresponding to Zeus, is born from Kumarbi and ultimately succeeds with Anu’s guidance in defeating him after a great battle. In the Hesiodic version it is Ouranos and Gaia who devise a plan to help Rhea give birth to Zeus in secret and to nurture him to maturity, thus ensuring the downfall of his father Kronos.

A Phoenician variant of the same Hurrian myth of successive divine rulers was discovered in the alphabetic texts from Ras Shamra, the site of ancient Ugarit in northern Syria. This version restored the credibility of Herennius Philo’s account of Sanchuniathon’s Phoenician theogony, which for a long time was considered a forgery. As in the Hittite text, this version has a generation preceding the one corresponding to Ouranos in the Greek tradition. The table below

shows the corresponding divine generations of the Hurrian, Phoenician, and Greek Succession Myths.  

<table>
<thead>
<tr>
<th>Hurrian myth</th>
<th>Sanchuniathon</th>
<th>Hesiod</th>
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<tbody>
<tr>
<td>Alalu</td>
<td>Elioun-Hypsitos</td>
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<tr>
<td>Anu</td>
<td>Ouranos</td>
<td>Ouranos</td>
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<tr>
<td>Kumarbi</td>
<td>El</td>
<td>Kronos</td>
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<tr>
<td>Tešub</td>
<td>Baal</td>
<td>Zeus</td>
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It is thus proved beyond doubt, as Lesky observed, that Hesiod’s narrative of Ouranos, Kronos, and Zeus “in einer Linie uralter Tradition steht.” In 1948, Hans Gustav Güterbock concluded that the Phoenicians, though not the inventors of the Succession Myth, must have been the intermediaries between the Hurrians and the Greeks. It is equally possible that the Phrygians, along with the Lydians, served in this function of intermediary between Greeks and Hittites, due to their position as Iron Age inheritors of the former Hittite possessions in Anatolia.

1.3 The formation of Homeric patronymic epithets: Κρονίων and Κρονίδης

There is no trace of Κρόνος in Mycenaean Greek. He emerges first in the Homeric epics, where, for the most part, his name appears in the patronymic epithets of Zeus, which terminate variably either in suffix -ίων or -ίδης. We arbitrarily set aside the few instances that employ the

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88 Speiser (1942: 98-102) has suggested that the first divine generation represented by Alalu is an extraneous addition subsequent to the Hittite adaptation of the Hurrian ‘Kingship in Heaven’ tradition; cf. van Dongen 2011: 180–201.
89 Lesky 1958: 90.
proper name Κρόνος, or its oblique cases, such as Κρόνου παῖς ἀγκυλομητέω and Κρόνου υἱός, which Usener thought belonged to a later stratum of Homeric tradition.\footnote{Güterbock 1948: 133: “The question whether the Greeks got their mythology from Phoenicia or not can now be answered in the affirmative.”} Usener’s thesis in Götternamen (1896) is that the frequently attested patronymic epithets of Zeus, Κρονίων and Κρονίδης, were originally variants of a proto-form *κρόνος (an appellative, not yet the proper name), and did not differ from it in meaning.\footnote{Usener 1896: 26.} Only later, as a secondary development, did the patronymic suffixes obtain their differentiated meaning: ‘son of X’.\footnote{Usener 1896: 6ff.} The same idea about patronymics, though without any mention of the Homeric epithets built on Κρόνος, occurs in Dunkel’s essay “Vater Himmels Gattin” (1990),\footnote{Dunkel 1990.} so it will be useful for our purpose first to review briefly Usener’s arguments, before examining their development in Dunkel’s study of Indo-European divine names.

The semantic development of Ὑπερίων demonstrates a clear proof of the genesis of patronymic epithets. In the Homeric epic Ὑπερίων is an epithet of Helios, as, e.g. Ὑπερίονος Ἑλίου (Θ 480, α 8) or Ἑλίῳ Ὑπερίονι (µ 133).\footnote{Cf. LSJ s.v. Ὑπερίων} He is the father of Helios only in later attestations, viz. in Hesiod’s Theogony (374) and in the Homeric Hymn to Helios (4)—the suffix -ίων having assumed a patronymic value. Therefore, Usener concluded that the patronymic epithets were originally attributive adjectives. In the case of Ὑπερίων, it is a comparative built on ὑπερος (cf. Lat. di superi). Eventually, the epithets started to to be used in their own right,

\footnote{A similar conclusion has been reached in a more recent study in Keurentjes 1997: 385: “it is difficult to give an acceptable explanation for x-ιδᾶς starting from an original meaning ‘son of X’.”}
independently of their reference (Ὑπερίων, T 398, a 24, h.Ap. 369), and were finally misunderstood as proper names.\textsuperscript{96}

A similar case is made for the suffix -ιδης, where a patronymic connotation is also dubious. Again in the \textit{Iliad}, P 324, Apollo takes the shape of the herald Periphas, and is said to be ἑοκός κήρυκι Ἡπυτίδη, ‘like the herald Epytides.’ The scholia to this passage acknowledge the conventional patronymic interpretation of Ἡπυτίδης as ‘son of Epytus,’ and indicate moreover that the phrase is analogous to ἥπυτα κήρυς at H 384:

\begin{quote}
Τὸ δὲ “Ἡπυτίδη” τινὲς πατρονυμικὸς· ἄλλα ἀπὸ τοῦ Ἡπῦτης Ἡπυτάδης ἦν· ἔστιν οὖν παραγωγὸν ἀπὸ τοῦ “ἡπύτα κήρυς” (H 384)\textsuperscript{97}
\end{quote}

Therefore, what seems to be a patronymic epithet is actually a derivative (παραγωγόν) of an unattested substantive *ἠπυτος ‘crier’.\textsuperscript{98}

In each case these patronymic epithets appear originally to have been extensions, without semantic differentiation, of a simple adjectival stem. Later, when the suffixes -ιων and -ιδης assumed a specialized semantic function as patronymic signifiers, the epithets built on them soon became personified and their original adjectival meaning was eventually forgotten. Thus, very often Κρονίων and Κρονίδης alone are sufficient for naming Zeus. Nevertheless, there are reasonable grounds for questioning the original patronymic value of the epithets Κρονίων and Κρονίδης.

This understanding concurs with Dunkel’s thesis concerning the character of Indo-European theonyms, namely, that many such names originate from the multiple secondary designations for the functions and attributes differentiated out of a single conception of

\textsuperscript{96} Usener 1896: 19f.
\textsuperscript{97} Σ ad P 324 (= Erbse 1975: IV 386).
The divinity of *Dyaus*, for instance, was subdivided into a number of hypostases—secondary divinities of precise character—such as Varuṇa, Mitra, etc., who were merely personifications of Dyaus’ several attributes. A similar process of dissimilation may explain the anomalous nominative case of Latin *Juppiter*, since the second element is merely an epithet expressing a specific aspect of the Indo-European sky-god. This name clearly shows how the primary name of the deity—simply *diēus* “sky”—eventually fused with the epithet *ph2tēr* “father” and formed a stock phrase or kenning that was finally understood as the appellative of the god. This insight is further validated by comparative religion. Prior to the differentiation of the Vedic sky-gods Dyaus Pitar, Varuṇa, and Parjanya, these names were originally epithets of a pre-Vedic sky-god *diēus*, each expressing a different aspect of a single deity.100 In Greece an analogous process has given rise to the division of proto-Zeus *diēus* into the gods, linguistically cognate to the above series, Ζεύς πατήρ, Οὐρανός, and κεραυνός. That the Homeric epithets Κρονίων and Κρονίδης may represent another such case was an idea first proposed by Welcker (1857), and later promoted in English by its foremost advocate Max Müller (1867).101 Just as Helios, the sun, is called the son of Hyperion, or sometimes, as already seen, Hyperion himself—having derived from the adjective ὑπερός (cf. Latin *superus*, ‘on high’) and the suffix -ιων, which was not originally a patronymic suffix—so, in this case, has Zeus Kronion, the son, led to the conception of his father Kronos. Only after -ιων and -ίδης became the usual patronymic suffixes, did Κρονίων and Κρονίδης come to mean the ‘son of Kronos.’ Thus, the mythical genealogy of Zeus originated merely from a deduction of popular etymology. Κρονίων originally

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99 Dunkel 1990.
100 Dunkel 1990: 2ff.
referred no more than to a special attribute of Zeus, the meaning of which Welcker explained as ‘the eternal, the god of ages, the ancient of days’, thus accepting the equivalence of Κρόνος and Χρόνος.
1.4 Ζεύς Κρόνος

If Κρονίων and Κρονίδης are like other patronymics in the Homeric epics, they must originally have designated some special characteristic of Zeus (or some other god assimilated to Zeus). After acting initially as an attributive adjective, the epithet eventually completely replaced the name, simultaneously relegating its original meaning to obscurity. This conclusion was first reached by Welcker in *Griechische Götterlehre* (1857), and popularized in English by Max Müller. According to these scholars the name Κρόνος was a secondary construct that owed its origin only to a spontaneous deduction from the apparent patronymics of Zeus. Kronos, the father of Zeus, they argued, “owes his very existence to his son, namely, to Zeus Kronion.” The logical consequence of their argument was to deny an independent existence for Kronos.

The problem with this line of reasoning is that it assumes that the epithets Κρονίων and Κρονίδης were formed before the historical development of patronymics was complete; they may rather have been constructed by analogy with the forms of similar epithets after the patronymic value of the latter had been established. Another assumption of this theory is that the passages in the Homeric epics that contain the phrases Κρόνου πάις ἀγκυλομήτεω and Κρόνου υἱος belong to a more recent redaction of the texts, since a genealogical relationship is unequivocally indicated.

Usener accepted Welcker’s hypothesis regarding the original non-patronymic value of the epithet Κρονίων without accepting his conclusions. He acknowledged the individuality of Kronos, but let him disappear behind Zeus. According to his line of reasoning, the same meaning should be expected for Κρόνος and Κρόνιος, since they are functionally equivalent. Each one is

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103 Müller 1891: II 544f.
identical to Zeus. Since these epithets are not distinctive, standing as they do in apposition rather than in opposition to the primary god’s name, they operate in free variation with Ζεύς. Therefore, one should expect to find Zeus himself surnamed Κρόνος. Such a name is in fact attested on silver hemidrachms from Himera from the second half of the 4th century B.C.104 These show on the obverse a bearded head facing right with the legend ΚΡΟΝΟΣ, apparently identifying the effigy as Kronos (see Figure 1).105

104 The first variety of this type was published in Imhoof-Blumer 1870. Cf. Head 1887: 127. Other varieties have since been published, among which see especially Gabrici 1894. For the dating of this type to the generalship of Timoleon, after his victory over the Carthaginians at the Battle of the Crimissus, 342/341-336 B.C., see Boehringer 1989; see also Manganaro 1998-1999. The images here reproduced are taken from the last mentioned source. For another image of the type, see Imhoof-Blumer 1883: pl. B 4, Boehringer 1989: pl. VIII 14.

However, a further consideration leads to a different conclusion. As Manganaro has observed, this type closely resembles that of the shorthaired Zeus *Eleutherios* on issues from roughly the same period minted at Syracuse and Leontini, a fact that supports an ulterior identification of the effigy with Zeus. Hence, by analogy with the legend *Eleutherios* on these coins, the legend ΚΡΟΝΟΣ on the Himeran coins ought likewise to be interpreted as an epiclesis of Zeus.\(^{106}\) This conclusion is further confirmed by the device of the thunderbolt on the reverse of these coins—the thunderbolt being an unmistakeable emblem of Zeus.

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\(^{106}\) Coins bearing the head of Zeus *Eleutherios* “the liberator,” along with those bearing the head of Sicelia as a nymph with the torch and ears of barley of Persephone and Demeter, are to be
The barleycorns that invariably flank the thunderbolt on coins of this type are a diversifying feature, which ought to connote the meaning of the legend on the obverse in connection to an agricultural image.

included as types minted in the money alliance organized under Timoleon when he set out on his expedition to liberate the Greek poleis of Sicily from Punic dominance. See Gardner 1883: 32.
CHAPTER 2: THE AMBIGUITY OF ΚΡΟΝΟΣ AND ΧΡΟΝΟΣ

2.1 Personification in archaic poetry and early philosophy

There is no reason not to suppose that Kronos, like Ouranos and Gaia, is merely a personification of some geological or cosmological concept. It is generally admitted that Hesiod’s *Theogony* is a poetic description of the state of divine governance in the world, and an account of how that state of affairs came to be. A state of divine governance necessarily implies the coexistence of powers perceived as either beneficent or maleficent to mankind, and in proportion to the magnitude of their effects these powers receive divine honors. Cicero describes this phenomenon of ancient religious thought (*ND* 2. 60):

> Multae autem aliae naturae deorum ex magnis beneficiis eorum non sine causa et a Graeciae sapientissimis et a maioribus nostris constitutae nominataeque sunt. quicquid enim magnam utilitatem generi adferret humano, id non sine divina bonitate erga homines fieri arbitrabantur.

> However, many other divine natures were conceived and named from their great benefits not without reason both by the wisest men of Greece and by our ancestors. For whatever would bring great usefulness to the human race, they considered it to have been made not without divine bounty towards men.

It is not always clear whether a divine figure in Hesiod is, on one hand, the product of a conceptualizing rationalism or, on the other, the creation of a mythopoeic imagination. Rather, it seems that Hesiod’s cosmos is so contrived as to foil any attempt at such stratification of his figures. There is no reason to suppose that the more patently personified abstractions are later, more artificial creations than, say, the Giants or the Hesperides. Whether early or late, we must reckon with the imperturbable coexistence of daimonic beings and personifications. Hesiod conceives of natural phenomena (darkness, light, earth, sky, etc.) and physical forces not as merely perceptible impressions, but as living figures that mate and give birth. For Hesiod these
figures are divine—a γένος θεόν—because he regards with reverence all natural phenomena, forces, and laws. Therefore he calls the divine generation of the first phase of the theogony αἰδώλιον “venerable” (Th. 44).

The study of abstract divinities by Usener and Kretschmer are informative.¹⁰⁷ They defend the view that abstractions are later than personifications, the designation of the former having first emerged from the names of ‘daemons’—numinous powers exerting a good or bad influence on human life. The main difference between daemons and gods is that the former are thought of as occult spirits or forces of nature, originally incorporeal and impersonal. As disembodied spirits, they are conceived of as neuter, i.e. without gender: this explains the fact that the names of daemons and gods appear as neuters. Hesiod, for example, regularly employs neuters, viz. Κράτος, Γῆρας, Χάος, Ἕρεβος, Ἀλγεα, Τάρταρα as names of daemons. Soon, however, a physical and personal conception of these daemons develops: once things are conceived as being animated by a soul, and thus as the proper body for this soul, it is justifiable also to equate them with the bodies of living creatures. It is therefore an important recognition, which has both linguistic and psychological repercussions, that among the Indo-Europeans abstract conceptions grew out of the sculptural representation of daemons. A remarkable proof of this tendency is demonstrated, for example, by Pausanias’ testimony (9. 27), that there was at Thespiae, in Boeotia, a cult of Eros, whose considerable antiquity ἐξ ἀρχῆς was attested by the aniconic representation of the god in unhewn stone, ἀργὸς λίθος.¹⁰⁸ Naturally, the assignment of gender, apart from grammatical gender, eventually combined with the depiction of daemons. According to this theory grammatical gender has its root in these animistic concepts, for it consists in the

specification of sex on the inanimate. Even events and actions were thought to occur by virtue of
the participation, protection, or opposition of daemons. Many were therefore named as though
they were the executors of these actions, *i.e.* with *nomina agentis*.

Another problem noticed by Kretschmer is that two very different meanings—the space-
concept ‘sky’ and the time-concept ‘day’—combined in the names *Dyaus-Zeus*. The
conceptual difference between ‘day’ and ‘sky’ can only be bridged by the mediating concept of
luminescence, of brightness; for the sky is the illuminating, bright space, while the day is the
time of illumination, the brightness. Accordingly, the meaning of the Sanskrit verb *dyótate*,
‘lightens, shines’ (*Vedic adyaut*) argues that even the nominal stem *dyau*- had this meaning.
Since the meaning ‘lighten, shine’ is not easily derived from the concept ‘sky’ or for that matter
from *deva*- ‘god’, it is easier to derive it from ‘day’, if it is not a pure concept of time. If
Pherecydes’ *Ζάς* (genitive *Ζάντος*) is an old dialectical variant of *Ζεύς*, it is then a participle of
the verbal root *δέια-, base-form *διάντ-, ‘bright’. Hence we come to the basic meaning of the verb
‘to glow, to radiate’, which Graßmann, on account of *Vedic didyú- ‘missile, arrow’, *didyút-
‘missile, lightning’, *divyati ‘to toss, throw dice, play’, restored to an even older meaning ‘to toss,
hurl, throw rays’.

2.2 Pherecydes

The earliest attested association of the names Χρόνος and Κρόνος occurs in Pindar (*Ol.* 10.
49/55, cf. *Ol.* 2. 12/17). Although the textual evidence is slight, the fragments of Pherecydes’
*Pentamychos* and the testimony either quoting or alluding to it suggest that it was Pherecydes

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108 Paus. 9. 27: θεῶν δὲ οἱ Θεσπεῖξ τιμῶσιν Ἐρωτα μάλιστα ἡ ἀρχής, καὶ σφισίν ἁγάλμα
παλαιότατον ἐστὶν ἄργος λίθος.
who originated the association. According to Schibli’s reckoning, Pherecydes’ floruit was around 544 BC, which means that the appearance of Chronos in Pindar and Orphic texts is probably due to Pherecydes’ influence, not vice-versa. There is no obvious collocation of the two names in any single fragment, but, inasmuch as the text of the Pentamychos can be reconstructed, the variation therein of Ζάς/Ζεύς and Χρόνος/Κρόνος is, according to Schibli, a reflection of their changing roles in Pherecydes’ account, a circumstance about which we shall have more to say shortly. Fortunately, the beginning of the work has been preserved for us by Diogenes Laertius:

Σώζεται δὲ τοῦ Συρίου τὸ τε βιβλίον ὅ συνέγραψεν, οὗ ἡ ἀρχή· Ζὰς μὲν καὶ Χρόνος ἦσαν ἀεὶ καὶ Χθονίη...  

There is preserved of the man of Syros the book which he wrote, of which the beginning reads: “Zas and Chronos always were and Chthonic”

The mention of Chronos at the beginning of the work as one of the three eternal cosmological principles, along with Zas and Chthonie, has been the subject of some controversy; Zeller, Wilamowitz, and Fraenkel considered the personification of Time too abstract a notion for a sixth century thinker, and therefore argued for emending Χρόνος to Κρόνος. Yet the reading

\[\text{109 Kretschmer 1923: 109.}\]
\[\text{111 Schibli 1990: 135ff.}\]
\[\text{112 Diogenes Laertius, Vitae Philosophorum I 119 (Long 1964: I 54) = F14 Schibli (Schibli 1990: 144).}\]
\[\text{113 Zeller 1869: I 73 n.2: ”Aber doch ist es kaum glaublich, dass ein so alterthümlicher Denker den abstrakten Begriff der Zeit unter der ersten Urgründen aufgeführt hätte.” West (1971: 28) comments as follows: ”If [Zeller] had taken non-Greek evidence into account here, he would have found, not only that his objection to a Pherecydean Chronos...was based on a misjudgement (sic) of the capabilities of pre-philosophical speculation, but that the idea of the god Time as a cosmic progenitor was widely established in the east, at any rate by the fourth century B.C., and in India, at least, by a period which may be no later than Pherecydes.” Cf. Wilamowitz 1929: 41: “Ich halte “einen Urgott Zeit im 6. Jahrhundert für undenkbar.” Vlastos (1952: 108 n.51) thinks this is “sheer dogmatism”. Fraenkel 1955: 20: “die Ausdeuter in diesen Κρόνος den χρόνος...}
Χρόνος is unambiguously and independently attested also in Damascius’ epitome of Eudemus’ history of theology:

Φερεκύδης δὲ ὁ Σύριος Ζάντα μὲν εἶναι ἄει καὶ Χρόνον καὶ Χθονίαν τὰς τρεῖς πρώτας ἄρχας, τὴν μίαν φημὶ πρὸ τῶν δυῶν, καὶ τὰς δύο μετὰ τὴν μίαν, τὸν δὲ <Χρόνον> ποιήσαι ἐκ τοῦ γόνου ἐαυτοῦ πῦρ καὶ πνεύμα καὶ ὠδόη, τὴν τριπλὴν, οἶμαι, φύσιν τοῦ νοητοῦ, ἐξ ὧν ἐν πέντε μυχοῖς διηρημέονοι πολλὰν ἄλλην γενεάν συστήναθαν θεῶν, τὴν <πεντέμυχον> καλομένην, τινὰν δὲ ἵσως εἰπεῖν, πεντέκοσιον.114

Pherecydes of Syros said that Zas always existed and Chronos and Chthonie, the three first principles, the one I say before the two, and the two after the one, and that Chronos made from his own seed fire and wind and water, the threefold nature, I suppose, of the intelligible, from which, after they were distributed in the five nooks, arose another numerous generation of gods, called the five-nook [scil. generation], and this is probably the same as to say the five-cosmos [scil. generation].

By contrast, Valerius Probus, the 1st century AD commentator of Vergil, attests to Κρόνος instead of Χρόνος:

consentit et Pherecydes sed diversa adfert elementa: Ζῆνα inquit καὶ Χθόνα καὶ Κρόνον, ignem ac terram et tempus significans, et esse aithera qui regat, terram quae regatur, tempus in quo universa pars moderetur.115

Pherecydes also agrees but brings forward diverse elements: Zen, he says, and Chthon and Kronos, signifying fire and earth and time, and that it is the aither which rules, the earth which is ruled, and time in which every part is governed.

On this last testimony seems to depend also that of the Christian apologist Hermias, writing in the 3rd century AD:

Φερεκύδης μὲν ἄρχας εἶναι λέγων Ζῆνα καὶ Χθονίην καὶ Κρόνον· Ζῆνα μὲν τὸν αἰθέρα, Χθονίην δὲ τὴν γῆν, Κρόνον δὲ τὸν χρόνον.116

*hineinlasen*, is followed by Lesky 1996, 161 n.2. Granger (2007: 144) points out that dissenting critics forget that as early as the second half of the seventh century Solon personifies time when he writes ἐν δίκῃ Χρόνου (F36.3 West).


Pherecydes says that the principles are Zen, Chthonie, and Kronos; that Zen is the aether, Chthonie the earth, and Kronos time.

Diels explained these inconsistencies as “stoisch bearbeiteten Berichten”, that is, ‘corrections’ made to conform to Stoic notions of theocracy.\textsuperscript{117} This explanation is more likely than the reverse assumption, namely, that the abstraction Χρόνος had crept in to take the place of Κρόνος in the 4th century BC, in order to conform to the sources of Damascius and Laertius.\textsuperscript{118}

Yet, just as Ζάς changes eventually to Ζεύς, we should expect Κρόνος also to appear at some point in the work. Thus we learn from a fragment of Celsus, as quoted in Origen’s polemic against him, that Kronos is given the command of an army against the monster Ophioneus:

\textit{Φερεκύδην δὲ πολλῷ ἀρχαίτερον γενόμενον Ἡρακλείτου μνησοῦσαν, στρατεύεται στρατείᾳ παραπατημένην, καὶ τῆς μὲν ἡγεμόνα Κρόνον διδόναι τῆς ἑτέρας δὲ Ὄφιονέα, προκλήσεις τε καὶ ἁμίλλας αὐτῶν ἱστορεῖν, συνθήκας τε αὐτοῖς γίνεσθαι, ἵνα ὁ Ὀφιονέα ἑπεξεσθῇ, τούτους μὲν εἶναι γενικημένους, τούς δὲ ἐξόσαντας καὶ νικήσαντας τούτους ἔχειν τὸν οὐρανόν.}\textsuperscript{119}

\textit{Pherekydes, being much older than Herakleitos, created a myth that army was arrayed against army, and that he gave Kronos as the leader of one, and Ophioneus of the other, and he told of their challenges and contests, and that they came to an agreement, that whichever of them fell into Ogenos, these would be the vanquished, and those who thrust them out and vanquished them, those would possess heaven.}

Schibli follows Diels in taking the testimony of Origen as reliable and giving Kronos his proper role only in the theomachy,\textsuperscript{120} where he is a leader of the heavenly hosts against Ophioneus, the

\begin{itemize}
\item \textsuperscript{116} Hermias, \textit{Irrisio gentilium philosophorum} 12 (Diels 1879: 654) = F66 Schibli (Schibli 1990: 165).
\item \textsuperscript{117} Diels 1897: 151.
\item \textsuperscript{118} This recognition may be fatal to the thesis in Brisson (1985: 412) that there was no Chronos in a Greek context, not even in Pherecydes, before the introduction of this figure in the first century AD by way of Mithraic influence on Orphism. For objections to this view, see the discussion in Betegh 2004: 157.
\item \textsuperscript{119} Origenes, \textit{Contra Celsum} VI 42 (Delarue 1857: 1360-1361) = F78 Schibli (Schibli 1990: 169ff.).
\item \textsuperscript{120} Schibli 1990: 135ff., Diels 1897: 151. West erroneously amends
\end{itemize}
representative of excess and disorder. This is a later phase of the Pentamychos, in which many
gods, such as the daughters of Boreas, the Harpies and Thyella, appear in their familiar
mythological roles. But this Κρόνος must clearly be distinguished from the Χρόνος of the
beginning, since two reliable, independent witnesses—Laertius and Damascius—testify
unanimously that Χρόνος is the name of one of the three ἀρχαί. Therefore, the introduction of
Κρόνος at the beginning of Pherecydes’ cosmogony has no documented justification.

The perplexing alteration of names, especially of the three cosmic principles, from Χρόνος
to Κρόνος, Ζάς to Ζεύς, and Χθονίη to Γῆ, is by no means due merely to arbitrary wordplay, as
has sometimes been maintained. Each change of name, as Schibli explains, occurs at a critical
point in the evolution of the Pherecydean cosmos, but this does not imply an essential change in
the divinity of the original principles—the “change in name does not obliterate their identities,
for their eternal aspect perdures.” Rather, the alteration of names is purposely meant to
illustrate an aetiological relation. The use of an etymological variant such as Zάς, vis-à-vis
Zeůς, or of an etymologically different, though semantically equivalent, form such as Χθονίη,
vis-à-vis Γῆ, is apparently a trope employed by Pherecydes to illustrate the aetiology of the
actual cosmos from proto-divinities reminiscent of their Hesiodic antecedents: Zάς, the creator of

121 Jaeger 1947: 68 regards the name “Chronos or Time” as a “transparent bit of etymologizing”; in Kirk-Raven 1957: 56 Pherekydes’ etymologies are “idiosyncratic”.
123 From Herodian we learn that Pherekydes also used Δίς, Ζήν, Ζής (F61 Schibli), and both Ρέα and Ρῆ (F62 Schibli). Kretschmer (1923: 110) recognized Ζάς as an etymological variant of Ζεύς: “Wenn Pherekydes' Zάς Gen. Zάντος...ein alter dialektischer Name des Zeus ist, so ist es
is held by Jaeger (1947: 68): “Zas, ‘he who liveth’ (derived from the verb ζῆν)”; this is most
likely derived from Plato’s Cratylus (396b): συμβαίνει σοῦν ὁρθῶς ὄνομάξεσθαι σοῦτος τὸ θεὸς
εἶναι, <δι> ὃν <ζῆν> ἀπὶ πᾶσι τοῖς ζόσιν ὑπάρχει. West’s suggestion (1971: 50f.) that Zάς may
be connected with Luvian Šanta (Sandes, Sandon) is intriguing.
the present world-order, emerges as the familiar Ζεύς, the Homeric father of gods and men, only after he assumes his creative role; Χθονίη, the primeval principle of earth, acquires the name Γῆ only after donning the robe fashioned by Ζάς as a gift at their wedding; Χρόνος emerges in his emanation Κρόνος to lead an army in battle against the dragon Ophioneus, who represents an existential threat to the established world-order. If two out of three figures are etymological or semantical variants of well-known theogonic figures, it is only natural then to deduce a similar case for the third. If, however, the etymological identity of Ζάς and Ζεύς is not sufficient to prove an analogous relation for Χρόνος and Κρόνος, at least the semantic equivalence of Χθονίη and Γῆ presupposes the likelihood that the two terms in question are semantically related. This conclusion may be permitted a priori, before we are actually able to verify the etymology of either term or otherwise prove their equivalence.

It may be objected here that the collocation of Χρόνος and Κρόνος in Pherecydes is due solely to an accidental similarity of the terms, that therefore this is merely an example of paronomasia. This opinion, however, is called into question by yet another example of Pherecydes’ predilection for archaizing or etymological variants. Clement of Alexandria preserves for us a fragment of the Pentamychos detailing the handiwork of Zas, in which the name Ωγηνός is encountered for the first time:

Φερεκύδης ὁ Σύριος λέγει: «Ζᾶς ποιεῖ φάρος μέγα τε καὶ καλὸν καὶ ἐν αὐτῷ ποικίλλει γῆν καὶ Ωγηνόν καὶ τὰ Ωγηνοῦ δῶματα.»

_Pherekydes of Syros says: “Zas fashions a mantle, great and beautiful, and on it he embroiders Earth and Ogenos and the mansions of Ogenos.”_
Though the fragment does not describe the spatial relation between Ogenos and Ge, one is reminded of the Homeric shield of Achilles, on which the circular stream of Ocean is made to circumscribe the earth, ἐν δὲ ἐτίθει ποταμοῖο μέγα σθένος Ῥκεανοῦ / ἀντυγα πᾶρ πυμάτην (Il. 18. 607f.). That Ὠγηνός is etymologically equivalent to Ῥκεανός is acknowledged in a gloss in Hesychios’ lexicon (s. v. Ὠγῆν), and is generally accepted by scholars. Even in ancient times the word Ῥκεανός was suspected of having a non-Greek origin. Gerardus Vossius, followed by Samuel Bochart, proposed a derivation from Hebrew חַוִּג (ḥūḡ, circle, circuit, horizon, vault), which Gesenius defines as “margo rotundus orbis terrarum”—a conception that corresponds nicely to the Greek idea of Okeanos as a circular stream at the edge of the world. It must however be remembered that in Vossius’ time it was thought that all languages had derived from Hebrew, so it is more likely that both this Hebrew word and the Greek Ὠγηνός/Ῥκεανός likewise derive from a common third source. Recently, M. L. West has pointed out that Hommel’s derivation from the Sumerian word  uğinnu ‘ring’ is untenable, since it is unattested; his own proposal of a non-Semitic word meaning ‘bowl, basin’ with widely attested reflexes in many languages (Akkadian agannu, Ugaritic āgn, Hebrew ṣaggān, Talmudic ḫūḡ) is unsatisfactory.

125 Hansen et al. 2009: IV 256 (= Ω 21).
127 Stephanus quotes Favorinus s. v. Ωκεανός (= Meineke 1849: I 706): προσαγορεύουσι δὲ τὴν ἐξοθάλασσαν ἐκεῖ μὲν οἱ πολλοὶ τῶν βαρβάρων Ωκεανόν, οἱ δὲ τὴν Ἀσίαν οἰκοδομεῖς μεγάλην θάλασσαν, οἱ δὲ Ἑλληνες Ἀτλαντικὸν πέλαγος; cf. Spohn 1818: 23 “Obiter moneo hunc locum satis gravi momento comprobare neque Oceani nomen neque notionem illam maris terram cingentis Graecae esse originis”.
128 Vossius 1641: 703, Bochart 1692: 638f. Cf. Isaiah 40, 22 (KJV): “It is he that sitteth upon the γ), and the inhabitants thereof are as grasshoppers; that stretcheth out the heavens as a curtain, and spreadeth them out as a tent to dwell in.”
ʾōgān, also Hittite aganni-) is also consistent with the Greek idea of the river Okeanos at the perimeter of the earth, or bordering the rim of Achilles’ upturned shield. West points out that this word is attested in an Ugaritic text (KTU 1.24) denoting the region whence the deified dawn and dusk—the twin sons of Ilu, Shaharu and Shalimu—are born. The similarity of this image to Hesiod’s description of Nyx and Hemera changing places on the bronze threshold at the edge of the world (ἀμεβόμεναι μέγαν οὐδὸν χάλκεον, Th. 749f.) is striking, though insufficient to establish a direct connection. All this serves to show only that Pherecydes most likely did not base his choice of names on arbitrary or capricious motives, but—what is more in keeping with the doxographical tradition about him as a teacher of mysteries—on an inherited tradition of cosmography, from which Hesiod also must have drawn in his Theogony. Though we cannot prove beyond a doubt that Χρόνος and Κρόνος are in fact etymological variants, we can reasonably assume that Pherecydes believed them to be so, and used them accordingly.

2.3 Gortyn

After the specialized use of these terms by Pherecydes, the evidence of the following century shows that the ambiguity was very much alive in the register of popular speech and writing. There is no indication in these contexts of the influence of speculative thinking, such as is evident in Pherecydes or in the later ‘Orphic’ theogonies; the ambiguity is usually thought to have arisen out of a folk etymology, i.e., by the phonetic association of different lexemes. It seems likely that Pherekydes, for his part, took advantage of a linguistic ambiguity that was already enjoying popular currency, rather than having invented it himself.
Free of any philosophical or mythical connotations, the early-5th century inscriptions known as the Gortyn Code (IC IV 72, I.11, 38)\textsuperscript{131} clearly show that in the Doric dialect of Crete κρόνος represents a variant spelling of χρόνος, undoubtedly meaning ‘time’:

\[\tau\delta\;\delta\epsilon\;\kappa\rho\omicron\omicron\omicron\;\tau\omicron\;\delta\iota\kappa\alpha\sigma\tau-\omicron\;\omicron\nu\;\omicron\mu\omicron:\nu\tau\alpha\nu\]  

\textit{and the judge is to decide on oath as to the time}

The inscription reflects the earliest type of Greek alphabet, into which, Willetts asserts, “the non-Phoenician signs \(\Phi\), \(\chi\) and \(\Psi\) had not been introduced and \(\Xi\) was not used.”\textsuperscript{133} This is challenged by Jeffery, who proposes that, unless an early abecedarium is discovered, the presence of the Phoenician supplemental letters cannot be disproven, nor can their disuse in Cretan be taken as proof of their absence, since the Cretan dialect was psilotic and therefore had no use for those letters to represent aspirates it did not possess.\textsuperscript{134} Nevertheless, the inscriptions demonstrate that in practice the Cretan dialect did not distinguish the sounds of the aspirates \(\varphi\) and \(\chi\) from unaspirated \(\pi\) and \(\kappa\). Furthermore, the mark for the \textit{spiritus asper} was not used, as was done in the archaic inscriptions of Thera with \(\Pi\) and \(\Kappa\) to designate the rough stops.\textsuperscript{135} Showing the same alternation, the Gortyn inscriptions further record κρήματα for χρήματα, κέρας for χεῖρας, πατροίκος for πατριώκος, ἀνκορέν for ἀναχορεῖν, πυλὰ for φυλή, πανάμερος for φηνάμερος, ἀνπαντὸς for ἀνάφαντος.\textsuperscript{136} This is not merely a graphic convention; it represents a rather common phonological tendency in both Doric and Ionic, which according to Buttmann, is “völlig

\begin{itemize}
\item \textsuperscript{131} Guarducci 1950: 126f.
\item \textsuperscript{132} Willetts 1967: 39.
\item \textsuperscript{133} Willetts 1967: 5.
\item \textsuperscript{134} Jeffery 1961: 310.
\item \textsuperscript{135} Buck 1910: 59, Sturtevant 1917: 52.
\item \textsuperscript{136} Meyer 1896: 281.
\end{itemize}
in den griechischen Dialekten gegründet”. With respect to the interchange of the guttural consonants χ and κ only, Doric has also άτρεχές for άτρεκές, and vice-versa μοδκορ for μυχός, in addition to κρόνος for χρόνος, as just mentioned; Ionic has δέκομαι for δέχομαι, κιτών for χιτών, and σκινδαλμός for σχινδαλμός. To these examples may be added also χορωνός for κορώνη.

Inflected forms also show the variation in their stems, viz. χάζω: κεκαδεῖν.

### 2.4 Ambiguity

At this point, it may be permitted to note generally the possible causes of linguistic ambiguity. Dialects permit a tolerable degree of variation in the spelling and pronunciation of words. Allowing thus for phonological variation in the ancient Greek dialects, such as the interchange of aspirated and unaspirated gutturals, there is no doubt that, as far as the Gortyn inscriptions attest, χρόνος and κρόνος are identical words, i.e., they are equivalent with respect to both etymology and semantics. This is admitted, even though their etymology is uncertain, because the meaning, viz. ‘time’ in the specific sense of ‘period of time,’ is quite clear, and is commonly understood across dialectal boundaries. Whether also the proper name Κρόνος can be considered identical to the common noun κρόνος, and thus by extension to χρόνος, cannot be determined with absolute certainty, but the likelihood that such indeed is the case may be reasonably argued.

Several possible cases exist with respect to the origin of the ambiguity of these two lexemes:

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138 *LSJ* s.v. χορωνός.
i. **Isonymy**, i.e., they are etymologically and semantically equivalent lexemes. The postulate of transitivity, that things which are equal to the same thing are also equal to one another, is assumed here: i.e. if Κρόνος is identical to κρόνος, and the latter is the same word as χρόνος, then Κρόνος and χρόνος are identical.

ii. **Polysemy**, i.e., they are etymologically equivalent (the same lexeme), but semantically different. Since the mind in relation to language was naturally not fettered by the etymological strictures of words, these words underwent semantic evolution as a consequence of progressive forgetting of the original etymological meaning. Thus, despite the etymology of these words, their meanings evolved independently into those that are reflected in the various lexica from their use in literature. This possibility assumes that in a preliterate phase these words represented a set of related concepts, which may be discerned, in the case of Κρόνος, by an examination of mythological traditions, and in the case of χρόνος, by a comparison with proposed etymological cognates. This case does not preclude the first, but may in fact constitute a historical development.

iii. **Homonymy**, i.e., they are different lexemes (etymologically and semantically different), but have the same spelling and pronunciation, with only minor differences attributable to dialectal variation. This is the *communis opinio*; therefore, different etymologies are proposed for both words, and the accidental ambiguity that exists between them is accounted for by indicting the ancient penchant for folk etymologizing grounded in phonetic association, i.e. through subjective correspondence or punning.
2.5 Elatea

From the same century as the Gortyn inscriptions comes a dedication to Poseidon from Elatea inscribed on a large marble pedestal, upon which apparently several statues once stood. It reads as follows:

\[
\text{ποντίωι ἵππον Χρόνο<ν> νίεῖ}
\text{ἡ πόλις εὐξαμένη τούσδ' ἀνέθηκε θεοὶ}
\text{ἡμιθέους σωτήρας ὑπὲρ προγόνων τε καὶ αὐτῶν}
\text{kai γῆς καὶ τεκέων καὶ σφατέρων ἀλόχων.}^{139}
\]

To the horse-tamer of the sea, Poseidon, son of Chronos, the city has promised and dedicated to the god these demigods, as saviours, on behalf of their ancestors and themselves, of their land, their children and their wives.

A passage in Pausanias (X 1.6) is generally thought to shed light on the historical circumstances of this inscription.\(^ {140} \) He is relating an anecdote about the wars between Phocians and Thessalians: the citizens of Elatea, alarmed at the approach of the Thessalian army, desperately pledge their families and moveable property as surety against defeat; they therefore build a pyre, upon which they agree to sacrifice their women, children and chattel, should the battle go badly for them. Fortunately, as the inscription in question attests, the Phocians succeed in routing the invaders. This event took place shortly before Xerxes’ invasion (circa 483 B.C.); however, the style of the letters does not permit so early a date. The inscription’s archaizing features, such as the stoichedon setting and the pointed omega, suggest that it is probably a copy of an archaic original.\(^ {141} \) It is possible that during the act of reproduction an original archaic Κρόνου underwent respelling to Χρόνου, thus representing the common ambiguity. Such reasoning may be behind Dittenberger’s redaction in Inscriptiones Graecae, which gives Χρόνου, after

\[^{140} \text{Paris 1886: 369, Paris 1892: 10f., Frazer 1898: V 211f., Frothingham 1886: 360.}\]
Lolling’s emendation, against the reading of the editio princeps, which has Χρόνος. In any case, there are no grounds for such an emendation, except perhaps if, as has been proposed, the myth of Kronos devouring his own children is not altogether incongruous with the idea of time as a power both creative and destructive. However, this interpretation is generally considered to belong to later sources, such as Cicero’s De natura deorum (II 64), or John Lydus’ De mensibus I 1. It is questionable that the Elatean inscription supports it, but the possibility cannot be ruled out. It does not appear to have been current in the classical period, as there is no trace of it in Plato’s Cratylus. It appears therefore that, as there is no reason to suppose that Χρόνος in the Elatean inscription connotes in any way a cosmological principle, it is then entirely likely that the attested form is but a variant spelling of Κρόνος and refers to none other than the Hesiodic father of Poseidon (cf. ὁ παῖ Κρόνου, OC 712). Furthermore, there is no precedent for Poseidon ever appearing in any of the Orphic genealogies as a son of Chronos, so a purported connection with Chronos as a cosmological principle here would be meaningless.

2.6 Classical Athenian Representations of Kronos

The earliest extant iconographical representations of Kronos suggest that he was interpreted as a personification of time. Two Attic red-figure terracotta vases illustrate the

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142 Dittenberger 1897: 39 (= IG IX 1, 130) attributes the altered text to Lolling, but it may be traced to Cougny 1890: 587. No reason for the emendation is given in either source.
143 See the discussion in Waser 1899: 2482.
144 Cicero, De Natura Deorum II, 64: Saturnum autem eum esse voluerunt qui cursum et conversionem spatiorn ac temporum contineret. qui deus Graece id ipsum nomen habet: Κρόνος enim dicitur, qui est idem χρόνος id est spatum temporis (= Ax 1933: 74).
145 Joannes Laurentius Lydus, De Mensibus I, 1: ὁ ῥήδος ἄρα οἱ τὰ μυθικὰ <συγγράψαντες> τὸν Κρόνον τοὺς ἑαυτοῦ παιδὰς ἀφανίζοντα ποιοῦσιν, ἀινιτόμους δήπου τὸν χρόνον πατέρα τε άμα καὶ ὅλεθρον τὸν ὑπ’ αὐτοῦ φυομένων γίνεσθαι (= Wünsch 1898: 1).
deception of Rhea, narrated at Th. 485f.: the first is a column-krater in the Louvre dated to 460 BC (see Figure 2); the second is a pelike in the New York Metropolitan Museum of Art (see Figure 3). Both depict Kronos as a bearded old man holding a staff and receiving from Rhea the swaddled stone in place of the infant Zeus. These representations appear to conform with the Aeschylean sobriquet πάτηρ πρεσβύτης Κρόνος, “old father Kronos” (cf. Eum. 641).

Figure 2: Kronos, Rhea and Women. Attic terracotta red-figure column-krater, early Mannerist Painter, 500-450 BC. Paris, Musée du Louvre, G 366.

Figure 3: Kronos, with Rhea offering him the stone. Attic terracotta red-figure pelike, Nausikaa Painter, 475-425 BC. New York, Metropolitan Museum of Art, 06.1021.144.

A peculiar feature of the Louvre krater is the lack of black pigment in the hair and beard of Kronos (see Figure 4)—a detail noticed by de Witte (1875: 32), but unsatisfactorily explained by him as suggestive of fire or blood. A more plausible explanation would be that of Pottier, namely that the painter deliberately left the hair and beard unpainted because he wanted to depict them as white, thus conforming to the common conception of Kronos as an ancient king.

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150 de Witte 1875: pl. 9.
151 Pottier 1922: 236.
Accordingly, the conventional depiction of Kronos in Old Comedy emphasizes his old age, and the primeval Golden Age, during which Kronos is said to have ruled, is typically transformed into a Land of Cockaigne or glutton’s paradise. It has been suggested that these depictions in Old Comedy elaborate very ancient popular themes, and that, since Hesiod was the first Greek poet to have approached mythic material with an expressly didactic purpose, his tale of the Golden Age should be regarded as a secondary, moralizing version of an older popular fable. A fragment of Cratinus’ *Ploutoi*, preserved in Athenaeus’ *Deipnosophistae* (VI 94 Kaibel), depicts Kronos as an ancient king, ruling over a utopian land of plenty, in which loaves of bread fell ready to eat from trees, obviating the need for hunting and the eating of meat:

οἶς δὴ βασιλεὺς Κρόνος ἦν τὸ παλαιόν,
ὅτε τοῖς ἄρτοις ἡστραγάλιζον, μᾶζαι δ’ ἐν ταῖσι παλαϊστραῖς

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152 Bonner 1910: 177-180.
Aíγιναία κατεβέβληντο δρυπεπεῖς βόλοις τε κομῶσαι. (fr. 165 Kock)\textsuperscript{153}

their king was Kronos long ago, when they used to play with bread rolls for knucklebones, and on the wrestling-grounds Aeginetan barley-cakes, ripened on the tree and blooming, had dropped to clods of earth.

The association with the remote past made Kronos’ name a byword for old age in the scurrilous jests (τὰ κωμικὰ σκώμματα) of Old Comedy, whereof Pollux’s \textit{Onomasticon} (II 16) witnesses the following expressions: Κρόνος ‘dotard, old fool’ (\textit{LSJ} s.v. II), κρονικός ‘old-fashioned’ (\textit{LSJ} s.v.), κρονόληρος (= fr. 1052 com. adesp. Kock) ‘old twaddler’ (\textit{LSJ} s.v.), and πρεσβύτερος Κρόνου.\textsuperscript{154} To these may be added two more, which are attested in the epitome of Phrynichus’ Attic lexicon: Κρονοθήκη (= fr. 1054 com. adesp. Kock) ‘receptacle for old follies’ (\textit{LSJ} s.v.)\textsuperscript{155} and Κρονοδαίμων (= fr. 1053 com. adesp. Kock) ‘dotard, old fool’ (= \textit{LSJ} Κρόνος II, supra). It is clear from these glosses that the root Κρόνο- in these compounds was understood to mean both παλαιός ‘old,’ and—as befitted the comic setting—ἐὐήθης ‘simple.’\textsuperscript{156}

In a fragment of Cratinus’ \textit{Cheirones}, preserved in Plutarch’s \textit{Pericles} (III), what has been a crux for textual criticism may actually be an instance in which the ambiguity between Κρόνος and Χρόνος was deliberately exploited for ironic effect. Here, Cratinus jokingly calls Pericles a son of ‘Discord and eldest-born Time’:

\begin{quote}
Στάσις δὲ καὶ πρεσβυγενής
Χρόνος ἀναλημφός μηνέντε
μέγιστον τίκτετον τύραννον,
ὅν δὲ Κεφαληγερέταιν
θεοὶ καλέουσι. (fr. 258 Kassel-Austin = 240 Kock)\textsuperscript{157}
\end{quote}

\textsuperscript{153} Kock 1880-1888: I 64.
\textsuperscript{154} Bethe 1900: I 85, Kock 1888: III 584.
\textsuperscript{155} Phrynichos’ gloss is more graphic: “ὡσανεὶ ἡ θήκη τοῦ Κρόνου καὶ ἡ σορὸς καὶ ἡ ταφή.”
\textsuperscript{156} Borries 1911: 79f.
Discord and eldest-born Time having mated with each other, bring into the world a great tyrant, whom the gods call Head-gatherer.

Rejecting in v. 2 the emendation Κρόνος accepted in Sintenis’ edition of Plutarch’s *Vitae* (1877)\(^{158}\) and in the collections of comic fragments by Meineke (*FCG*, 1839)\(^{159}\) and Kock (*CAF*, 1880),\(^{160}\) who each preferred to follow the anonymous corrector,\(^{161}\) Kassel-Austin (*PCG*, 1983) on the contrary argue that the reading Χρόνος not only reflects the consensus of the oldest codices of Plutarch, but is justified on literary grounds as well.\(^{162}\) Pherecydes had first established a place for Chronos in the alternative theogonies, which were being circulated to a panhellenic audience. This is evident in the treatment accorded to Chronos in epinician literature: he is called ὁ πάντων πατήρ, “father of all things” by Pindar (*Ol*. 2, 17), and Bacchylides calls Hemera λιπαρὰ θύγατερ Χρόνου τε κ[α]ί Νυκτός, “radiant daughter of Chronos and Nyx” (7, 1).

It is therefore difficult to accept Luiselli’s assertion that, since the idea of Chronos as a cosmic principle was an innovation foreign to Athens, Athenians were therefore unfamiliar with it.\(^{163}\) On the contrary, Chronos was most likely already familiar to Athenian audiences even before the time of Euripides’ *Suppliants* (423 BC), which is likely echoing Bacchylides when Chronos is referred to as παλαιὸς πατήρ ἀμερᾶν, “ancient father of days” (v. 787). Now since Pericles is

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\(^{158}\) Sintenis 1877: I 301.
\(^{159}\) Meineke 1839: II 147.
\(^{160}\) Kock 1880: I 86.
\(^{161}\) Luiselli (1990: 85, n. 2) claims to have traced this correction back to Xylander’s edition of Plutarch, printed by Andreas Wechel at Frankfurt in 1599, but an examination of this text (Xylander-Cruzer 1599: I 153), available in digital facsimile at [http://dx.doi.org/10.3931/e-rara-9882](http://dx.doi.org/10.3931/e-rara-9882), certainly proves that he is incorrect. It is however possible that the later edition printed by Wechel in 1620, also cited by Luiselli, may show the correction in question; however, this source was unavailable to me.
\(^{163}\) Luiselli 1990: 93.
elsewhere made a parody of Zeus, it was only natural for him to have been called a son of Kronos; however, contrary to expectation, Cratinus makes him a product of the intercourse of Time and Discord, as it were to emphasize the parody through the use of impersonal abstractions. Yet the allusion to Chronos here would be meaningless, if the connection with Kronos and the traditional genealogy of Zeus were not simultaneously born in mind by the audience. Therefore the presence of Chronos as a metaphysical type of Kronos is but a witty conceit in the manner of Pherecydes, juxtaposing impersonal Time as father beside an equally impersonal mother Discord.

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CHAPTER 3: ΧΡΟΝΟΣ IN ITS HEAVENLY ASPECT

3.1 The Solar Identity of Χρόνος

We learn from Damascius’ fragment of Pherecydes Pentamychos that Chronos created, out of his own seed, the elements fire, wind and water:

τὸν δὲ <Χρόνον> ποιήσαι ἐκ τοῦ γόνου ἑαυτοῦ πῦρ καὶ πνεῦμα καὶ ὕδωρ.\(^{165}\)

Time made out of his own seed fire and air and water.

The materiality of this outcome was the reason that Zeller did not accept the interpretation of Χρόνος as a personification of such an abstraction as time. Rather, his suggestion of an alternative understanding may in fact be a clue to an archaic meaning of the word. If fire, wind and water formed out of the seed of Chronos (Χρόνου γόνος), this too should be be conceived as a material substance, and Chronos himself consequently should represent a certain part of the world; that is, if we consider that fire, wind and water are formed in the atmosphere during tempests, according to this line of reasoning, Chronos should be that part of the sky lying closest to the earth, and the deity ruling it, “den der Erde näher stehenden Theil des Himmels und die denselben beherrschende Gottheit.”\(^{166}\) That Chronos was for Pherecydes a symbolic name for the sky is not surprising; it is quite consistent with the Pythagorean notion that time is identical to the sphere of the encompassing sky: χρόνον τὴν σφαίραν τοῦ περιέχοντος εἶναι.\(^{167}\) This ‘poetic’

\(^{165}\) Damascius, De principiis 124bis (Ruelle 1889: I 321) = F60 Schibli (Schibli 1990: 163).
\(^{166}\) Zeller 1869: 73.
\(^{167}\) Aetius, De placitis reliquiae 21: Πυθαγόρας τὸν χρόνον τὴν σφαίραν τοῦ περιέχοντος εἶναι. (Diels 1879: 318). cf. Simplicius, In physicorum IV 10 [p. 218 a 31]: οἱ δὲ τὴν σφαίραν αὐτήν τοῦ οὐρανοῦ [τὸν χρόνον εἶναι φασιν], ός τοὺς Πυθαγορείους ἱστοροῦσι λέγειν...Διὰ τούτο γὰρ ἐδόκουν τὸν οὐρανὸν λέγειν τὸν χρόνον (Diels 1882: 700). This conception allowed the Pythagoreans to call the sea ‘Κρόνου δὲ δάκρυν’—which, if the tradition can be trusted, may go
meaning of χρόνος as something predicated of the sky or atmospheric phenomena seems to haveeen all but forgotten in historical Greek, were it not for a notable exception in Hesiod’s use of
the adjective μεταχρόνιος. The word occurs in two passages describing the flight of Harpies:

αι ρ’ ἀνέμων πνοῆσι καὶ οἰωνοῖς ἀμ’ ἔπνται

όκείης περύγεσσι: μεταχρόνιαι γὰρ ἵαλλον. (Th. 268f.)

[ μεταχρόνιοι πόδεςσι

..... ..... ..... ]ν διά τ’ αἰθέρος ἀτρυγέτοιο (fr. 150. 34f.)

In prose the compounding of χρόνος with the prefix μετά normally means ‘after a time’, but in
poetry, starting with Hesiod and later imitated by Apollonius Rhodius and Nonnus, the
alternative meaning ‘high in the sky’ is clearly supported in the scholia to the Theogony, which
interpret as follows:

μεταχρόνιαι γὰρ ἵαλλον: ἀντὶ τοῦ ἔτρεχον, ἐπέτοντο· καὶ τὸν οὐρανὸν γὰρ χρόνον
καλοῦσι.  

That χρόνος and οὐρανός are here synonymous is recognized also in several lexica:

1. μεταχρόνιον μετέωρον. (Apollonius Sophista)
2. μεταίσιον· μεταχρόνιον [μεταίσιον: μετάρσιον Ruhnken] (Hesychius)
3. μεταχρονία: ἥ εἰς ὕψος φερομένη. (Suda)

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169 For a full discussion of the uses of this word and its treatment by textual critics, see West
170 Σ in Th. 269 (di Gregorio 1975: 54).
171 Bekker 1833: 112.
172 Schmidt 1858-68: III 96.
173 Suda, s.v. μεταχρονία (Gaisford 1834: 2472).
In the old scholia to Euripides’ *Phoenissae*, Chronos is mentioned as one of the four horses that draw Helios’ chariot through the sky:

τέσσαρες γάρ εἰσι, Χρόνος, Αἴθωψ, Αστραπή, Βροντή.\(^{174}\)

The incongruity of having Χρόνος joined to names personifying solar and meteorological phenomena is striking; there is little sense in understanding Χρόνος here as ‘Time’. Dindorf suspected the text for no other reason.\(^{175}\) The notorious unreliability of Hyginus’ epitomizer (he transmits Bronte correctly, but gives Eous for Χρόνος, Aethiops for Αἴθωψ, Sterope for Αστραπή)\(^{176}\) compels us to take the Euripidean scholia as reflecting a more authentic tradition; nevertheless, his testimony that Eumelus is the source of these names, despite the errors in transmission, may indeed indicate a very ancient tradition for them, from which the scholiast could have drawn.\(^{177}\) Of course, in Hesiod these names are given to the Cyclopes, who manufacture Zeus’ thunderbolt:

δῶκαν δὲ βροντὴν ἠδʻ αἰθαλόεντα κεραυνὸν καὶ στεροπήν (*Th.* 504-5)

gείνατο δʼ αὐτῷ Κύκλωπας ὑπέρβιον ἢτορ ἔχοντας
Βρόντην τε Στερόπην τε καὶ Ἄργην ὀβριμόθμομον
οἱ Ζηνὶ βροντῆ τ’ ἐδοσαν τεῦξαν τε κεραυνὸν (*Th.* 139-141)

βροντῆν τε στεροπῆν τε καὶ αἰθαλόεντα κεραυνὸν (*Th.* 854)

Although the textual evidence is slight, we can at least begin to make a case for Chronos as a personification of some aspect of the sun.

### 3.2 The Solar Character of Kronos

\(^{174}\) Σ in Eur. *Phoen.* 3 (Schwartz 1887: I 246); see also *RE* 6. 2482, s.v. Χρόνος (3).

\(^{175}\) Dindorf 1863: III 31.

In the *EM*, *s.v. Ἦλις* (465. 15), Kronos is said to have shared with Helios the sovereignty of the country of Elis before the ascendency of Zeus, and as a memorial of this there was an altar common to both of them there:

Πρὸ τοῦ Δία κτήσασθαι τὴν Ὀλυμπίαν παρὰ τῆς Γῆς, αὐτῆς παρειλήφθησαν Ἦλιος τε καὶ Κρόνος. Γνώρισμα δὲ τοῦ κτήματος κοινός ἐστὶ βωμός ἄμφοιν αὐτοῖν ἐν Ὀλυμπίᾳ.

As members of the ὦράνιοι, the generation of gods that preceded the rule of Olympian Zeus, Kronos is mentioned as a πάρεδρος or Doppelgänger of Helios. Kronos may originally have been an epithet of Helios.

### 3.3 Chronos in Greek Thought

According to Beekes, in the latest etymological dictionary of Ancient Greek, the etymology of χρόνος is still unknown. Its semantic field, however, has been thoroughly studied, notably by Phillipson (1949), Fraenkel (1955), Accame (1961) and Gerber (1962), to whom we refer the reader for detailed examples of usage in literature and for comparisons with other terms denoting time. It shall suffice here briefly to summarize their conclusions in order to arrive at an understanding of the archaic Greek conception of time. For Homer χρόνος is never an active agent; the word connotes above all a vacant period, during which either nothing happens or something expected has yet to happen. The archaic Greek regards time with his eyes turned against the current, but the feeling of time’s effect on him eventually engenders a consciousness of time as an energy in his very acting and being. Thus he is no longer motionless in the ineluctable current of time, but is taken along with it to ever new encounters. In Pindar

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177 West 2002: 115.
χρόνος has become the agent behind this momentum, and starts to be used as a subject.\footnote{179} This sense of the irresistible forward movement of χρόνος is felt even more intensely by Plato in the \textit{Timaeus} (37d-39d), where the continuous progression from past to future precludes an experience of the present moment—as soon as it arrives, it becomes a past event. In the continuous process of becoming, there is no ‘now’.

Hence, it is natural that in classical sources Chronos should be imagined as an old man. His personification as an ancient god, πολλὸς χρόνος (\textit{AG} 9, 499),\footnote{180} or an “aged craftsman,” πολλὸς τεχνίτης (Diphilos, fr. 83 Kock)\footnote{181} is a logical consequence of earlier references to him in Pindar as ὁ πάντων πατήρ (\textit{O.} 2, 17) and in Sophocles as “a god bringing ease,” εὐμαρῆς θεός (\textit{El.} 179).\footnote{182} The belief in a god of time among the Greeks, which is first attested in the writings of Pherecydes, may be traced back to a Phoenician or Babylonian development of Egyptian solar religion during the seventh or sixth century B.C. Here the idea of time, represented by the firmament and especially by the movement of the sun, came to be worshipped as a distinct divinity—the supreme god Ῥῴμ, eternal progenitor of the cosmos—who combined locally with the old Semitic cosmogony of wind and water.\footnote{183} It is likely that this figure disseminated on the one hand to Greece, where as Chronos it combined with Zas and Chthonie to become one of the three eternal principles of Pherecydes’ cosmogony, and on the other hand to India, where as Kāla

\footnote{179} For example, χρόνος can “grow weary” (\textit{Pae.} 2.27), “make one ashamed” (\textit{Olym.} 10.8), “cause trouble” (\textit{Olym.} 6.97), “bring something to pass” (\textit{Nem.} 4.43), and “save just men” (Fr. 159); see Gerber 1962: 30f.
\footnote{180} Beckby 1958: III 306.
\footnote{181} Kock 1884: II 569.
\footnote{182} Galán 1992: 277. A reference to him in Euripides as the father of Aion (\textit{Her.} 900) may also be relevant.
it becomes the parent of Prajāpati, who in the *Atharvaveda* assumes the role of creator. It is probably through Pherecydes that this belief in the god of Time came to influence Orphic doctrine, which in turn spread so widely by the fifth century B.C. as to influence the development of the Zoroastrian heresy of Zurvanism.\(^{184}\) This new religious influence, promulgated by dissident Magians who emigrated from Persia where Xerxes was suppressing their sect, found fertile ground in Asia Minor; here the Magian god of time Zurvān was readily syncretized with Greek, and later with Roman, hypostases of time—variably referred to as Chronos, Aion or Saeculum—and eventually emerged at the head of the Mithraic pantheon.\(^{185}\)

### 3.4 The Etymology of χρόνος

For now, it will suffice to point out that the most egregious assumption upon which this criticism is predicated is that these words are susceptible to analysis according to the laws of Indo-European phonology. It is generally recognized that the word χρόνος does not admit a straightforward etymology.\(^{186}\) We are very likely dealing with a word which belongs to a substratum or superstratum language, or which at least exhibits the influence of such a language. For Windekens this word is ‘Pelasgian,’ adopting thus a conventional designation, which has since been rejected, for an Indo-European pre-Greek substratum language.\(^{187}\) Nevertheless, he

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\(^{184}\) Boyce 1982: 232.

\(^{185}\) Zaehner 1955: 19f.


proposes the following derivation (reproducing his notation): Greek χρόνος < *(qr)-no- < Indo-European root *(s)qer- ‘cut,’ from which comes also Greek κείρω. More recently Janda (2010), following Haudry’s three-heaven model, has argued that the divine name Κρόνος is derived from the same Indo-European root *(s)ker- ‘cut,’ which explains his cosmoogonic role, familiar from Hesiod’s Theogony, as the god who, by castrating his father Ouranos, separates heaven and earth and occupies an intermediate position as crepuscular sky between the nighttime sky of Ouranos and the daytime sky of Zeus. If these assertions are correct, then the whole basis for skepticism about the etymological identity of Χρόνος and Κρόνος may lack a solid foundation.

The hypothesis that Greek χρόνος is a linguistic cognate of zrvan—the Avestan word for time—may be traced to Burnouf’s Études sur la langue et sur les textes zends (1845), wherein he noted that, due to a regular sound change, Avestan z corresponds to Greek χ and Sanskrit h. This was based on an earlier discovery by Benfey that there was a regular correspondence between Greek χ and Sanskrit h, which he thought could permit the connection between Greek χρόνος and a Sanskrit word for ‘time’, viz. hariman, from the root hṛ ‘take away, destroy.’ In France, Burnouf agreed on the equivalence of Sanskrit initial group hṛ- to Avestan zr-, but was reticent about conjecturing a Sanskrit equivalent to zrvan. In Germany, however, Bopp lacked Burnouf’s reserve and fully established the supposed equivalence of Greek χρόνος to Avestan zrvan and Sanskrit hariman, supposing that the equivalent of the Sanskrit root hṛ in Greek would

theory, since it must be admitted that the pre-Greek substratum was not unitary, but consisted of several languages, some Indo-European and others non-Indo-European. Cf. Hester

188 Windekens 1952: 18.
189 Janda 2010: 45ff.
190 Burnouf 1845: 275.
be χερ ‘take, grasp.’ This was accepted by Curtius, who derived from it χείρ ‘hand,’ χορός ‘enclosed dancing-ground’ and χόρτος ‘courtyard’ (cf. Latin hortus ‘garden,’ hara ‘pen, coop, sty,’ cohors ‘enclosure, yard’). This led to a basic meaning for χρόνος, viz., “the enclosing barriers of time” (umfassende Zeitgrenze), apparently because time’s limits somehow hold or embrace the space they contain. While tentatively accepting this derivation, Frisk admitted that Curtius’ semantic analysis was hardly clear, “ist jedoch wenig anschaulich.” Chantraine, however, was more critical, and reproached Frisk for sacrificing semasiological rigor while forcing a derivation from one or another of Pokorny’s *gher- roots (IEW 439-443), but particularly from “*gher- ‘saisir, tenir, contenir’” (= gher- ‘greifen, fassen, umfassen, einfassen,’ IEW 442). Effectively Frisk severed the historical connection between χρόνος and zrvan, which latter term Pokorny had listed “vielleicht” under the root “ĝer-, ĝerə-, ĝre ‘morsch, reif werden, altern’.”

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192 Bopp 1861: 418.
196 Pokorny 1959: 390f. Cf. Rix-Kümmel 2001: 165: *ĝerh2- ‘aufreiben, alt machen.’ Prellwitz (1905: 515) had assumed an Indo-European derivation for χρόνος, by analogy with θρόνος < *dher, but questioned whether the root χερ was a reflex of the plain velar stem *gher ‘pound, grind’ (= gher- ‘hart worüber striechen, reiben,’ IEW 439) or the palatalized stem *ĝher ‘seize’ (mentioned above). He inclined, however, to the former (though this was not quite right), because he thought χρόνος, like zrvan, was semantically closer to γέρων than to and χείρ. The correct derivation of zrvan may ultimately be traced to Benfey (1842: 128), who derived it not from har, hr (> hariman ‘time’), but from ĝar, ĝři, which was glossed in Bopp’s lexicon as ‘conteri, consumi, confici (praesertim aetate).’ See Bopp 1867: 148. Unfortunately Benfey did not connect zrvan to χρόνος.
Pokorný’s reservation about including zrvan here may reflect the phonetic difficulty in deriving it from the words to which it is most often connected semantically, viz. Avestan zaurvan- ‘senility, infirmity’, and zaurura- ‘creaky, frail.’ Recently, however, Lubotsky has demonstrated the correctness of this derivation (in his notation from PIE *ǵerh₂- ‘to become old’), but he denies that the primary meaning of zrvan was ‘time,’ since it was only in late Zoroastrianism that it acquired such an abstract meaning—a necessary step before becoming personified as the god of time. The usual meaning of zrvan in the Avesta is ‘a period of time, time-span, lifetime,’ denoting thus a discrete duration, for which the primary analogue is a human lifetime. Related to this notion is that of ‘old age,’ as contained in the word zaurvan, denoting the limit of a life-span or the physiological condition to which it naturally arrives. A Sanskrit cognate jaraṇa ‘old, decayed’ derives from the root jṛ, jur ‘waste away’ (cf. above hariman < ṣṛ). By analogy Benfey proposed the derivation of Greek γέρων (originally a participle meaning ‘wearing down’ which evolved semantically to mean ‘be old’) and γηρας (reconstructing the latter as follows: γέρῳς > γέρῳς > γηρας). Cognates are widely distributed in the Indo-European languages, including (in addition to the Avestan and Sanskrit reflexes just mentioned) also Sanskrit járant- ‘fragile, old, senile,’ Avestan zarəta- ‘old, infirm,’ Ossetian zārond ‘old’ and Armenian cer ‘old, old man.’ A secondary development of this root, restricted to European languages, has led to Lithuanian žīrnis, Latvian zīrnis ‘pea,’ Latin grānum, Old Irish grān, Old Prussian syrne, Old Church Slavonic zrьno, Gothic kaūrn, Old

197 Bartholomae 1904: 1683f: s.v. zaurura- Adj. ‘altersschwach, gebrechlich’; zaurvan- m. ‘Greisenalter, Altersschwäche.’
198 Lubotsky 1998, Blue 1925: 64f.
199 Whitney 1885: 55; Monier-Williams 1899: 413. This root is identical to ǵar, gṛ, as glossed in Bopp’s lexicon; supra.
English *korn* ‘grain,’ and Old English *cyrnel* ‘seed, pip’ (cf. Sanskrit *jūrṇā* ‘frail, decrepit’).\(^{201}\)

These parallel lines of development are reconcilable in the basic meaning of the PIE root *gērH-* ‘crush, grind, wear down,’\(^{202}\) which by extension denotes also the material substance that is crushed or ground, *viz.* grain, and also, in a corollary sense, the physiological condition obtained as a consequence of the act of wearing down, *viz.* old age, wherefore it seems only natural to conceive of time here as the causative agent. This begins to explain the symbolism of the rotating sky as a cosmic mill in Scandinavian and other mythologies.

The idea of time discussed so far arises from the observation of its degenerative, disintegrative action on life and nature. It is worth noting, however, that in at least two Indo-European roots the notion of a periodic cycle of time and a renewal of nature with every return of the spring has given rise to a number of reflexes, among which we can count even the names of Juno and Hera. The name of Greek *'Hr̔a*, the wife and queen of Zeus, is related to ὰρα ‘season, daytime, hour’ and ὰρος ‘time, year,’ which derive from the Ablautsform *iōr-* of the Indo-European root *iēr* ‘year, summer’ (cf. Gothic jēr, Old High German jar, Avestan yārə ‘year’).

The Homeric epithet βοῦς and the connection in myth and ritual between Hera and the cow or heifer suggest that the name *Hr̔a* derives from a polysemous root, connoting primarily ‘the year,’ and secondarily ‘a yearling, young animal’ (cf. Russian järka ‘lamb’). The name of Jūno, the wife of the Roman king of the gods Jūppiter, is related to Latin jūnix (< juvenix) ‘young cow, heifer’ and juvenis ‘young, youthful.’\(^{203}\) Thus Latin *Juno* seems be the translation of Greek *Hr̔a*,

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201 Rix-Kümmel 2001: 165. Gamkrelidze-Ivanov (1995: 1369, 600, 836) consider these cognates to be a lexical innovation, inferring from them a close historical interaction between Balto-Slavic-Germanic and Italic-Celtic dialect areas.

202 Rix-Kümmel (2001: 165) tentatively recognize two roots: *ĝerh₂-* ‘be ‘old’ und *ĝerH-* ‘crush, grind,’’ which were combined in Indo-Iranian.

suggesting that in early times the Romans had adopted the appellative, no longer attested, on which the divine name of the goddess Hera was based: Ἡρα represents ‘the year’ in the image of a heifer. A similar semantic development from a primary meaning ‘year, season,’ to secondary connotations ‘yearling’ and ‘age, old age’ is evident in still another Indo-European root: *yet- ‘year.’ This root has reflexes in Greek ἐτος < ἓτος ‘year,’ Gothic wibrus ‘yearling lamb’ (cf. English wether), Latin vitulus ‘yearling calf,’ and vetus ‘old.’ By analogy with onustus and venustus, it is likely that vetustus arose from an unattested Latin neuter substantive vetus meaning ‘year.’ The root *yet- also underwent semantic change, signifying originally ‘year,’ then ‘yearling,’ coming finally to mean ‘senility, old age.’

From the foregoing, there should be no difficulty in relating χρόνος semantically to zrvan and its cognates. As we have seen, Chronos is typically personified in Greek literature as an old man, and the verb χρονίζω can mean also ‘to become old.’ However, assuming that χρόνος is an Indo-European word, a reconstruction of its base would yield *ghren- ‘rub, stroke roughly,’ an extension of *gher-, not *gērh- (LIV 165); therefore no immediate connection with zrvan is to be inferred. The derivatives of *ghren- in Greek include: χραίνω ‘touch slightly, besmear, anoint’ (cf. χρίω ‘touch, graze, rub, anoint’); with various extensions:

χόνδρος (dissimilated form < *χρόνδρος) ‘granule; lump; groats of wheat or spelt; gristle, cartilage’;

χέραδος n. ‘gravel, pebbles’ (< *gēr̚d̜- or *gɛrh̜d̜-?).

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205 This was pointed out by Ebel 1855: 329.
206 Brugman 1879: 38.
χέρμας, -άδος f. ‘pebble, slingstone’;

perhaps χέρμα1, ατός n. ‘the upper stone in an olive-press’;

without extension, from simple base *gher-, κέγρος ‘millet, grain,’ κάχρυς ‘parched barley’ (dissimilated reduplicated forms, respectively < *gher-ghro-s and *ghn-ghru-s).

Cognates include Latin frendō , -ere ‘to crush, bruise, grind, gnash the teeth’ (cf. friō, -āre; fricō, -āre), Old High German gersta ‘barley,’ and Old Islandic grotti m. ‘mill.’208 With many apparently overlapping areas in the respective semantic fields of *gērh2- (supra) and *gher-, the linguistic data presented here strongly indicate a tendency towards convergence of these roots at an early phase of the proto-language.209

The fact that the reflexes of *gērh2- signifying ‘grain’ are geographically restricted to Europe is regarded by Gamkrelidze and Ivanov as the product of lexical innovation.210 It is possible to attribute to dialectal variation the existence in the same area of *gher- and its derivatives, signifying ‘grain’ in Greek (κέγρος, κάχρυς) and Germanic (Gerste). Rix and Kümmel admit the possibility of a primitive root *gērH- ‘crush, grind, wear down,’ which in Indo-Iranian resolved to *gērh2- with a concomitant crystallization of meaning into ‘be old, frail.’211 Allowing for the possibility of variation in the initial consonant, this primitive root provides a common, semantically intact, basis for the European reflexes. This implies that the initial consonant functions as a core invariant, which may take the form of a voiced occlusive tectal, whether aspirated (*gh-), aspirated and palatalized (*gh-), labialized (*gw-), or not (*g-).

The original PIE root with initial palatalized velar consonant thus furnishes manifold reflexes

208 Walde 1906: 244.
attesting to a process of variation, whereby alternations in the secondary articulation of the root-initial consonant are observable linguistically as polysemy. Thus the derivatives of *ghren-d- ‘to crush, grind’ (*IEW 459 = *g(ə)rend- LIV 204)—as, e.g. English ‘grind,’ Latin ‘frendō’—may exhibit both an ‘oral’ sense—denoting the action of the teeth or a similar apparatus—and a ‘manual’ sense, as in ‘to grind a coffee mill.’ Langenhove’s analysis of some Indo-European monosyllabic roots of the pattern CvC (i.e. consonant + vowel + consonant) has revealed that in fact one is dealing here not with simple roots, but with complex bases composed of a radical *əәer- variably determined by the prefixes *g-, *gh-, *g̊-, *g̊u-, etc., each having a proper value, since each of them must have been originally a zero-degree root.\(^{212}\) This would effectively widen the range of related derivatives, possibly to include also those derived from the labialized root *g̊u̯er-, *g̊u̯erə-, which generates, on the one hand, a set of derivatives associated in meaning with the oral function of consuming, devouring, swallowing, viz. Latin vorō, -āre ‘swallow, gulp,’ Greek βρόγχος ‘throat, gulp’ (*g̊u̯er- IEW 474 = *g̊u̯erh- LIV 211), and, on the other hand, a set with n-extension connoting the manual function of pressing, crushing, grinding, viz. Gothic qairnus ‘mill,’ Lithuanian girna ‘millstone,’ Old Norse kvern ‘millstone, hand mill,’ Old English cweorn ‘hand-mill,’ Old Church Slavonic zrny ‘mill,’ Armenian erkan (*ekran) ‘millstone,’ Sanskrit gravan ‘stone’ (*g̊u̯ənu- IEW 476).

The notional affinity between time and old age permits the inclusion also of Greek χρόνος into the semantic field of zrvan ‘time’ from *g̊erh₂- ‘to become old.’ A phonological difficulty emerges in the reconstructed forms of traditional comparative linguistics, as these roots derive from seemingly unrelated, though semantically close, roots: Greek χ having come from Indo-

\(^{211}\) Rix-Kümmel 2001: 165.

\(^{212}\) Whatmough 1943: 4f.
European $gh$, while Avestan $z$ from Indo-European $g$. We argue that these ultimately converge into a unique proto-form.

The constellation of significations thus generated by these roots is consistent with the symbolic representations of the motion of the sky in mythological traditions. Rydberg makes the point that, because the mill was perhaps the first large-scale mechanism invented, its rotating motion aptly served as a metaphor for that of the starry firmament. This motion must have been early recognized regular, predictable, and independent of the capricious interference of gods or other powers. The conception of Kronos as a god of the rotating sky, governing the periodicity of the seasons and the harvesting of grain, merges in the image of the mill with the conception of time as a force that wears down by a metaphorical grinding action.
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