THE WORKS OF

GEORGE DALGARNO.
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GEORGE DALGARNO

OF ABERDEEN.

REPRINTED AT EDINBURGH:

M.DCCC.XXXIV.
PRESENTED TO

THE MAITLAND CLUB

BY HENRY COCKBURN AND

THOMAS MAITLAND.
THE MAITLAND CLUB.
M.DCCC.XXXIV.

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HE first idea of reprinting the Works of George Dalgarne, as a private contribution to the Maitland Club, was suggested by the following passages in the writings of Mr. Stewart, which, coming from so high an authority, have not hitherto met with the attention they merit.

"Of the Scottish authors," says this eloquent Philosopher, in a note to his Preliminary Dissertation to the Encyclopedia Britannica, "who turned their attention to metaphysical studies, prior to the union of the two Kingdoms, I know of none so eminent as George Dalgarne of Aberdeen, author of two works, both of them strongly marked with sound philosophy, as well as with original genius. The one published in London, 1661, is entitled, Ars signorum, vulgo character universalis et lingua philosophica, qua poterunt homines diversissimorum idiomatum, spatio duarum septeminarum, omnia animi sui sensa (in rebus familiaribus) non minus intelligibiliter, sive scribendo, sive loquendo, mutuo communi-
care, quam linguis propriis vernaculis. Præterea, hinc etiam pote-
runt juvenes, philosophiæ principia, et veram logicæ prasin, citius
et facilis multo imbibere, quam ex vulgaribus philosophorum
scriptis. The other work of Dalgarno is entitled, Didasca-
locophus, or The Deaf and Dumb Man’s Tutor. Printed at Oxford,
1680. I have given some account of the former in the notes at
the end of the first volume of the Philosophy of the Human Mind;
and of the latter, in a Memoir, published in Vol. VII. of the
Transactions of the Royal Society of Edinburgh. As they are
now become extremely rare, and would together form a very
small octavo volume, I cannot help thinking that a bookseller,
who should reprint them, would be fully indemnified by the sale.
The fate of Dalgarno will be hard indeed, if, in addition to the
unjust neglect he experienced from his contemporaries, the
proofs he has left of his philosophical talents shall be suffered to
sink into total oblivion.”¹

In the notes to the Philosophy of the Human Mind, here re-
ferred to, Mr. Stewart, after quoting a letter from Leibnitz to
Mr. Burnet of Kemney, dated in the year 1697, on the subject
of a Real Character, and a Philosophical Language, remarks, that
“the person mentioned by Leibnitz under the name of M. Dal-
garbus, was evidently George Dalgarno, a native of Aberdeen, and
author of a small and very rare book, entitled Ars Signorum, &c.
It is very remarkable that this work of Dalgarno is never (at least
as far as I recollect) mentioned by Wilkins; although it appears
from a letter of Charles II., prefixed to Dalgarno’s book, that
Wilkins was one of the persons who had recommended him to
the royal favour.”²

The following notice of Dalgarno by Mr. Stewart in his Ac-

¹ Preliminary Dissertations to the Encyclopedia Britannica, p. 284–5.
count of a Boy born Deaf and Blind, is more elaborate and interesting. “After having thus paid the tribute of my sincere respect to the enlightened and benevolent exertions of a celebrated foreigner (Sicard), I feel myself called on to lay hold of the only opportunity that may occur to me, of rescuing from oblivion the name of a Scottish writer, whose merits have been strangely overlooked both by his contemporaries and by his successors. The person I allude to is George Dalgarno, who, more than a hundred and thirty years ago, was led by his own sagacity to adopt, a priori, the same general conclusion concerning the education of the dumb, of which the experimental discovery, and the happy application, have, in our times, reflected such merited lustre on the name of Sicard. I mentioned Dalgarno formerly, in a note annexed to the First Volume of the Philosophy of the Human Mind, as the author of a very ingenious tract entitled Ars Signorum, from which it appears indisputably that he was the precursor of Bishop Wilkins in his speculations concerning a Real Character, and a Philosophical Language; and it now appears to me equally clear, upon a farther acquaintance with the short fragments which he has left behind him, that, if he did not lead the way to the attempt made by Dr. Wallis to teach the dumb to speak, he had conceived views with respect to the means of instructing them, far more profound and comprehensive than any we meet with in the works of that learned writer, prior to the date of Dalgarno’s publications. On his claims in these two instances I forbear to enlarge at present; but I cannot deny myself the satisfaction of transcribing a few paragraphs in justification of what I have already stated, with respect to the remarkable coincidence between some of his theoretical deductions, and the practical results of the French Academician.

"I conceive there might be successful addresses made to a dumb child even in its cradle, when he begins risu cognoscere matrem; if the mother or nurse had but as nimble a hand, as commonly they have a tongue. For instance, I doubt not but the words hand, foot, dog, cat, hat, &c. written fair, and as often presented to the deaf child's eye, pointing from the words to the things, and vice versa, as the blind child hears them spoken, would be known and remembered as soon by the one as the other. And as I think the eye to be as docile as the ear; so neither see I any reason, but the hand might be made as tractable an organ as the tongue; and as soon brought to form, if not fair, at least legible characters, as the tongue to imitate and echo back articulate sounds."—“The difficulties of learning to read, on the common plan, are so great, that one may justly wonder how young ones come to get over them. Now, the deaf child, under his mother’s tuition, passes securely by all these rocks and quicksands.—The distinction of letters, their names, their powers, their order, the dividing words into syllables, and of them again making words, to which may be added Tone and Accent; none of these puzzling niceties hinder his progress.—It is true, after he has past the discipline of the nursery, and comes to learn grammatically, then he must begin to learn to know letters written, by their figure, number, and order,” &c. &c.

The same author elsewhere observes, that “the soul can exert her powers by the ministry of any of the senses: And, therefore, when she is deprived of her principal Secretaries, the Eye and the Ear, then she must be contented with the service of her lackeys and scullions, the other senses; which are no less true and faithful to their mistress, than the eye and the ear; but not so quick for dispatch.”

I shall only add one other sentence, from which my readers
will be enabled, without any comment of mine, to perceive with what sagacity and success, this very original thinker had anticipated some of the most refined experimental conclusions of a more enlightened age.

"My design is not to give a methodical system of grammatical rules; but only such general directions, whereby an industrious Tutor may bring his deaf Pupil to the vulgar use and in of a language; that so he may be the more capable of receiving instruction in the in from the rules of grammar, when his judgment is ripe for that study: Or, more plainly; I intend to bring the way of teaching a deaf man to read and write, as near as possible, to that of teaching young ones to speak and understand their mother-tongue."

In prosecution of this general idea, he has treated, in one very short chapter, of a Deaf Man's Dictionary; and in another, of a Grammar for Deaf Persons; both of them containing (under the disadvantages of a style uncommonly pedantic and quaint) a variety of precious hints, from which, if I do not deceive myself, useful practical lights might be derived, not only by such as may undertake the instruction of such pupils as Mitchell or Massieu, but by all who have any concern in the tuition of children during the first stage of their education.

The work from which these quotations are taken, is a very small volume, entitled "Didascalocophus, or, The Deaf and Dumb Man's Tutor, printed at the Theater at Oxford, 1680." As I had never happened to see the slightest reference made to it by any subsequent writer, I was altogether ignorant of its existence, when a copy of it, purchased upon a London stall, was a few years ago, sent to me by a friend, who, amidst a

Francis Horner.—Ed.
multiplicity of more pressing engagements and pursuits, has never lost sight of the philosophical studies of his early years. I have been able to learn nothing of the author, but what is contained in the following slight notice, which I transcribe from Anthony Wood. "The reader may be pleased to know, that one George Dalgarno, a Scot, wrote a book, entitled, Ars Signorum, &c. London, 1661. This book, before it went to press, the author communicated to Dr. Wilkins, who, from thence taking a hint of greater matter, carried it on, and brought it up to that which you see extant. This Dalgarno was born at Old Aberdeen, and bred in the University at New Aberdeen; taught a private grammar school with good success for about thirty years together, in the parishes of S. Michael and S. Mary Mag. in Oxford; wrote also, Didascalocophus, or The Deaf and Dumb Man's Tutor; and dying of a fever, on the 28th of August 1687, aged sixty or more, was buried in the north body of the church of S. Mary Magdalen." (Ath. Oxon. Vol. II. p. 506-7.)

The obscurity in which Dalgarno lived, and the complete oblivion into which his name has fallen, are not a little wonderful, when we consider that he mentions among the number of his friends Dr. Seth Ward, Bishop of Sarum; Dr. John Wilkins, Bishop of Chester; and Dr. John Wallis, Professor of Astronomy at Oxford. It is still more wonderful, that no notice of him is taken in the works either of Wilkins or of Wallis, both of whom must have derived some very important aids from his speculations.

This unfairness on the part of Wilkins, has not escaped the animadversion of one of his own biographers. "In the prefatory epistle (he observes) to the Essay towards a Real Character, Dr. Wilkins mentions several persons who assisted him in this work, particularly Willoughby, Ray, and Dr. William Lloyd, and
"others; but it is remarkable, that he does not mention Dalgarno, "and the more, because Dr. Wilkins's own name is printed in the "margin of King Charles II.'s letter prefixed to Dalgarno's book, "as one of those who informed his Majesty of Dalgarno's design, "and approved it, as a thing that might be of singular use to "facilitate an intercourse between people of different languages; "which prevailed with his Majesty to grant his said letters of "recommendation to so many of his subjects, especially of the "Clergy, as were sensible of the defectuousness of art in this "particular."—Biog. Britan. Art. Wilkins.5

That Dalgarno's suggestions with respect to the Education of the Dumb, were not altogether useless to Dr. Wallis, will, I think, be readily admitted by those who take the trouble to compare his letter to Mr. Beverley (published eighteen years after Dalgarno's treatise) with his Tractatus de Loquela, published in 1653. In this letter some valuable remarks are to be found, on the method of leading the dumb to the signification of words; and yet, the name of Dalgarno is not once mentioned to his correspondent.

If some of the details and digressions in this note should be censured, as foreign to the principal design of the foregoing Memoir, I can only plead in excuse, my anxiety to do justice,
even at the distance of a century, to the memory of an inge-
nious man, neglected by his contemporaries, and already in
danger of being totally forgotten by posterity. To those whose
curiosity may lead them to study his books, the originality of his
conceptions, and the obvious application of which some of his
principles admit to the peculiarities of the case now before us,
will of themselves suggest a sufficient apology.”

The preceding extracts exhaust all that is known of George
Dalgarno, and of his writings. They are eminently calculated
to excite curiosity regarding his speculations on the interesting
subjects of a Real Character, and a Philosophical Language; and,
to those who take delight in tracing the history of Philosophy,
even in her more obscure departments, no apology can be neces-
sary for the present attempt to fulfil Mr. Stewart’s generous
wish, that the name of Dalgarno should be rescued from obli-

EDINBURGH, M.DCCC.XXXIV.
Ars Signorum,
VULGO
CHARACTER UNIVERSALIS
ET
LINGUA PHILOSOPHICA.

Qua poterunt, homines diversissimorum Idiomatum, spatio duarum septimanarum, omnia Animi sua sensa (in Rebus Familiaribus) non minus intelligibiliter, sive scribendo, sive loquendo, mutuo communicare, quam Linguas propriis Vernaculis. Præterea, hinc etiam poterunt Juvenes, Philosophiae Principia, et ceram Logicas Praxin, cius et faciius multo imbibere, quam ex vulgaribus Philosophorum Scriptis.

Authoris Geo. Dalgarno, ——— hoc ulter.

LONDINI,
Exeudebat J. Hayes, Sumptibus Authoris,
Anno reparatae salutis, 1661.
Shod CAROLOI

KANEL Sefa, ten Sefup,
sf Britannoi some, Hibernoi,
Fransoi; ten Krumel sf
Tepu Sibia Christoisa

Kanel Sefa

KANELLI funa sif Nom, tempomefi avvi lama, lul, Sava Kanel sif Kanelli famefi bred Nam fas Lolo; Tøn lol-fas, lelilli punefi, Lolo famefi avvi lama ben Nom fas lelil; trim avvi sf kufu shom kruifu. Avvi sif sif kruifu, tim, fpnu Tøn fun-famu sif Temmu, lul, famefi Stenu typo, sfso, ten pomo. Tøn flam, tim sfu sf Stenu, lul-dan, Temmu ten Tennu tim popo, flam, tim sfu sif Kanel, lul-dan tim Kanel sif Kranelli tibo. Temmu famefi Stenu sefa, flun, shumu sif uvvi ten sfubbu, flam; fas, avvi lola tim sif-sefa flam Temu. Kanel Sefa, lai Kranel Lolo shufa fpotefi thod Lolo Temu lafa, lul, fpnuofa dan fdpennu shuma loka: Lolo fl-dan tifeta fpofu Lolo, flame ten pemre trnu Lolo safefu tøtu lola: Tøn Lolo tubefa, lam Trinnu Lolo, kranelli lolo tibo, pofu Symu Lolo Lolo Kana. Stopu Shama sifrefu Temu lola lama; ten lolir famefu Tonu ten Stifu Lolo, ten Tonu sif Stenu, ten (lul tim lana) Tonu sif Sava, pemo bred daddu brepa sif Nom. Lol-fas Kanel sif-sefa, tupefto Kafelli, Tibelli, ten Temelli Lolo, tefif pipai sfubu ten figu sif Temu lola; ten lul-dan Lolo pemefu taggu sif lelilli shop lela, sim-fodefo shod Sefel ten Sfanel, fas fatu sif spppu sif lelil. Lal trim tunefi Staffu ten Stubbu; shom, sif-lupa lela, lus, sifrefu lal flemefi ten sifrefu Temu lola.
femo, sham škradu šof Sava, Šefu šof Lol Kanel lala, šim-tipu šof Stenu lala, šigu šof uvi šuna, šun šebu šof Eiv lala. Lolirri tim šhammu š祐a, sham lul, lal pebei Šepš; šun lul-dan Sava šabesa laš sham lelirri, trim pebei Šepš. Ten šlem lel-dan, lal tim,

*Kanel Šof-sefa*

*Kanel Lolə kəba*

Georgoi Dalgarnoi.
CHARLES R.

Whereas we have been informed by the testimonies of divers learned men* from both the universities of our kingdom of England, concerning the great pains taken by George Dalgarno, in a scholaistic and literary design, of an Universal Character and Philosophical Language; All of them approving and commending his discovery, judging it to be of singular use, for facilitating the matter of communication and intercourse between people of different languages, and consequently a proper and effectual means for advancing all the parts of real and useful knowledge, civilizing barbarous nations, propagating the gospel, and increasing traffic and commerce. We understanding moreover, by certificates from several credible persons, that through the various vicissitudes of providence, he hath suffered the loss of a considerable estate, by reason whereof, he is wholly disabled from affording that charge and expence for the effectual prosecuting of this work, as the nature of it requires.

We therefore, out of a tender consideration of the premises, and for manifesting our good will and affection towards the promoting of art, and the encouraging all such ingenious persons of our subje&ts, who shall attempt and effect any thing tending to publick good; as we do declare, that, we will our selves express some token of our royal favour, for the helping forward this so laudable and hopeful enterprise; so also, reflecting upon its common and universal usefulness, we do by these

Our Letters of Recommendation incite as many of Our Subjects (especially the Reverend and Learned Clergy) as are truly apprehensive and sensible of the defective state of Art, chiefly in this particular of Language; what great loss Mankind is at there-through, how acceptable it will be before God, and praise worthy among Men, to Encourage and Advance those waeles of Learning, wherein the General Good of Mankind is intended; That such would, as their Affections shall encline them, and their places enable them, put their helping hands to the bringing forth this (as yet) Infant Design, now flitting in the Birth.

This will give just cause to Our Posterity through succeeding Generations, while they are reaping the Fruit of Our Ingeny and industry, to look back upon Us with Reverence; And from Our Example they will be provoked not to rest upon what they shall have received from Us; but still to be Endeavouring to proceed in a further repairing the Decayes of Nature, untill Art have done its last, or, which is most probable, Nature cease to be, or be Renewed.

Given at Our Court at Whitehall this 26th of November, in the 12th Year of our Reign.

Will. Morice.
Lectori Philosopho.

abeat, meis viribus confidam, ut, per haec ad omnes Doctos provocem qui
Tractatum hunc in manus fument; quorum Ingenia, studia, otiumque et
secessus Cenores idoneos secerint; ut, fi quae laus, fi quis honor, fi quis
Generis Humani amor, fi quod studium Artes et Rem Literarum promo-
vendi, fi que denique Postrorum cura: Per omnia haec Menti Generosae
charissima, obteftor, rogo, flagito, obfeco; Doctrinam hanc novam, jam
quinque fere Annorum studio ad hanc matutatatem per ductam, fevere
(simul tamen candide et sincere) examinent, probent; mihique tua fenfa
de ca quem citiffime renuncient. Si enim in aliquo ad melius confulat,
et Errem meum non folum detexerint, sed fine majore Errore emenda-
verint, promitto me Animo facile et grato eorum monitis obtemperaturum.
Cumque expectandum non fit, unicum quemvis hominem, omnibus No-
tionibus Naturae et Artis Nomina apta, Philosophice et secundum Rerum
Naturas instituere posse; nisi prius earum accuratas Definitiones a vari-
arum Artium peritis habeat: Vos igitur Viros Virtuosos et singularium
Artium vere Magistros compello. Quisque de suo penu ad hanc Babele
restaurandam materiam miniftret. En jactum Fundamentum fatis am-
plum et firmum: Non enim vel minimum dubito, quin omnes Notiones
Naturae et Artis ex Radicalibus hic positis fatis perplicue definiri possint:
Hoc tamen unum intendite, ut Rerum Descriptiones, Differentias maxime
Communes et notas exhibeant, et ab aliis rebus maxime distinguentes;
idque quam paucifimis vocibus, ne voces hujus Linguae ex iis componendae
in nimiam longitudinem excrecant. Hominus Superstitiose nimi, suf-
ceptum hoc, Facinus Audax a Deo vetitum opinantes, ne audite. An
Deus O. Hominibus libertatem indulfit, Carduos et Sentes ex agris eradi-
candi? Errores autem ex Coelesti Animorum Solo exstirpare prohibuit?
Abfit! Ne credite. Deus ipse ejufque Principiores Miniftre (hie in
Terris) Natura fcil. et Ars, eadem Methodo in operando utuntur, id eft,
progrediendo ad imperfeftioribus ad Perfectiora. Quid hinc de haec Arte
concludam facile et colligere. Quantus autem fit futurus ejus fructus
(præcipue fi in Scholas introducatur ejus usus) in Pofteris Seculis, vos
Viros Doctos variis vestris conjecturis relinquo. Valete.

Geo. Dalgarno.

A Ens, res
H Substantia
E Accidens
I Ens Concretum ex Subst. et Accid.
O Corpus
r Spiritus
U Concretum ex Corpore et Spiritu. 1. Homo
M Concretum Mathematicum
N Concretum Physicum
F Concretum Artefactum
B Accidens Mathematicum
D Accid. Physicum Generale
G Qualitas Sensibilis
P Accidens Sensitivum
T Accidens Rationale
K Accidens Politicum
S Accidens Commune, alias, servilis
R Servilis, significat oppositionem
L Servilis, significat medium inter extrema
V Characterist. vocis numericae.

Notæ Numericae.

A 1 M 1 Vado 154
H 2 N 2 Ventum 32861
E 3 F 3 Vapulo 17604
O 4 B 4 Vel 30
r 5 D 5 Vendo 3254
U 6 G 6 Vetuit 38808
AI 7 P 7 Valili 10000
EI 8 T 8 Void 95
OI 9 K 9 Vestis 380
I 0 L 0 Verrere 333
Placuit Gratitudinis ergo, et ut alii incitentur ad Artem hanc Novam ulterior propagandum, eorum Nomina adscribere, Quorum munificentia (cum meis laboribus) Ars hec a primo Inventionis femine ad hanc maturitatem crevit, jamque Lucem Publicum videt. Horum nemo infra summam unius Libræ Anglicææ, nemo supra decem, largitus est.

C. Culpeper Baronet.              Gold Armig.
J. Keate Baronet.                  J. Sparrow Armig.
G. Crook Baronet.                  L. Fogge T.B.
T. Dillingham T. D.               S. Byfield A. M.
G. Dillingham T. D.               J. Tillotson A. M.
J. Wilkins T. D.                   Cooper A. M.
S. Ward T. D.                  Staughton A. M.
H. Wilkinson T. D.               Floyd A. M.
F. Walsel T. D.          R. Cumberland A. M.
R. Whichcoat T. D.                T. Branker A. M.
J. Bathurst M. D.                   F. Lodwick Civ. Lond.
A. Morgan M. D.                    T. Slater Civ. Lond.
LEXICON GRAMMATICOC-PHILOSOPHICUM,

SEU

Tabulae Rerum, et Notionum omnium Simpliciorum, et Generaliorum, tam
Artesiam quam Naturalium, Rationes, et Respectus communiores,
Methodo Praedicamentali ordinatas, complectentes: Quibus significandis,
Nomina, non Cadu, sed Arte, et Confilio, servata inter Res et Signa
convenientia Analogica, instituuntur. Ex quibus, Rerum et Notionum
aliarum omnium magis Complexarum et specialorum Nomina, vel De-
rivatione, vel Compositione, in una vel pluribus vocibus, per Regulas
quasi Generales et certas, secundum Analogiam Logico-Grammaticam,
formantur; Ita ut Nomina sic formata, Rerum Descriptiones ip-
farum Natura consentaneas, contincant.

Av Ens, Res
Hv Substantia
Ev Accidens
Iv Ens completum, vel con-
cretum
Ov Corpus
Yv Spiritus
Vv Compositum; id est, Homo.
Meis Concretum Mathematicum.

MeiM Species simplices.

mam punctum
mam linea
mam superficies
mam solidum.

MeiB Figura.

mab circulus
mab sphæra

meb spira
mib cubus
mob conus
mob cilindris
mob piramis.

Partes Figurae.

ab basis r. cacumen
rb latus r. angulus
eb perimetrum r. area
ib axis r. polus
ob gumpus r. impages.

Meis Concretum Phycicum.
MeiMNeiF Inanimatum.
MeiM Simpler.

nam caelum
nam ignis
nam aer
nim aqua
nim terra.
LEXICON

Partes Coeli.

as stella
ar luna
al sol.

Partes ignis.

ns fumus r. flamma
ns cinis r. fuligo.

Partes aeris.

eu nubes
er ventus.

Partes aquae.

is mare r. fluvius
ir fons l. palus r. rivos.

Partes terrae.

os continens r. insula
or mons l. planities r. vallis
ol cavea r. rupea.

NeiN Meteoron.

nan ignitum
nu aerium
nen aqueum
nin terrenum.

NeiF Minerale.

naf medium
naf lapis
naf lapis pretiosus
naf metalum.

NeiDBeiG Planta.

Sneib imperfecta.

NeiBeiD Herba.
NeiB Festa.

nab bestia veeca
nab homini in folio

neb in radice
nib in fructu
nob legumen
nub frumentum
nub condimentum.

SneiBeiD Miscellanea.

snab marina
snab lacustris
snab junci et arundines
snab convolvula
snob spinosa
snob filices
snob scabiosa
snad tomentosa
snad umbellifera
snad corimbifera
snad lactaria
snad nervosa
snad linosa
snad semper viva.

neid Flore Insignis.

ned bulbusa
nvd non bulbusa.

neig Lignosa.

nag suffrutex
nag frutes spinosus
nag semper viridis
nig non spinos. seminif.
nog bacciferus.

s neig Arboz.

snag sterilis
snag glandifera
snag conifer a
snag nucifera
snag prunifera
GRAMMATICO-PHILOSOPHICUM.

snag pomifera
snag acinifera.

Partes Plantae perennes.
ad sucus
vd radix l. truneus r. ramus
ed cortex l. caro r. medulla
id geniculum r. internodium
od spina r. lanugo
ud gummi r. resina.
ud surculus.

Partes Annuae.
ag folium l. flos r. fructus
ag pappus
ag calix
ag palea r. siliqua
ag epica
ag arista
ag putamen r. nucleus.

NeiPTEik Brutum
tei imperfectum
SNeiPTEik Exangue
s Nei P Aerium Volatile.
snap detectipennis
snep bipennis
snep vaginalipennis.

s Neit Aquenum.
snap molle apodum
snap molle pedatum
snep crustaceum caudatum
snep crustaceum rotundum
snep testaceum turbinatum in anfractum
snep testac. turb. in orbem
snut conchae.

s Neik Terrestre.
snap apodum
snak paucipedatum
snak multipedatum

NeiPTEik Sanguineum.
NeiP Aerium id est, Adis.
nap carnivora
nap nocturna
nap canora
nap domestica
nap pulveratricae
nap aquatica
nap palmipes.

Partes Adis.
sp e penna r. pluma
spi ala
spo crista.

Neit Aquenum id est Piscis.
nat squamosus
nat levis
nat cartilagineus
nat planus
nat fluviatilis
nat cæte.

Partes Piscis.
ott branchia
ott squama r. pinna.

Neik Terrestre.
nak oviparum
nak solidipes
nak bisulcum
nak multifidum majus
nak multifidum minus
nak sub terra degens
LEXICON

nuk serpens
neiteik amphibion
Partes Bruti in Genere.

eiM Excrementitiae.

am crinis r. unguis
um cholera r. melancholia
em stercus r. urina
im mucus
om cauda r. juba
um cornu r. ungula.

eiN Partes Fluidaæ utiles.
an humar r. pituita
an sanguis r. spiritus
en lac r. semen
in modulla r. cerebrum
on chylus.

eiF Spermaticae.
as os r. cartilago
af cutis r. membrana
ef caro r. adeps
if vena r. arteria
of nervus r. fibra
uf ligamentum.

meis Caput r. Collum.

ma cranium r. facies
mn oculis r. aurus
me frons r. occiput
mi cilium
mo tempora
mo nasus.

neis OS.
nb dens r. lingua
nn gingiva
ne palatum

ni labium r. mentum
no bucca
nu gula
nu gurgillo.

feis Truncus.

fa pectus
fi mamma r. umbilicus
fe scapula r. costa
fi costa r. spina
fo venter r. lumbus
fo nates.

s meis Artus.

sma manus r. pes
smb brachium r. femur
sme cubitus r. tibia
sni cubitus r. genu
sma carpus r. calc
smu manus r. pes parvus
smu digitus r. digitus pedis.

s neis Partes Organicae
bentrís intimi.

sma esophagus 1. ventriculus r. in-
testina
smb peritoneum l. omentum r. me-
senterium
sne opar r. testes
sni lien r. fel
sma vesica r. ren
smu uterus r. virga
smu fetus r. ovum.

FLegis Partes mediae habitatis.

fla diaphragma
fln pulmo
flc cor.
Fœis Concretum Artescum.
FœMNeiF Necessarium.
FœM viæus et Amicitus.
FœM Vitus.

flam panis
flam potus
flam jus Condimentum
flam butyrum
flam caseus
flam fortum
flam artoceus.

FœM Amicitus.

flam filum
flam viitta
flam passus
flam pulvinar
flam saucus
flam ornamentum.

FœM Aedificium.

flam domus
flam navis
flam pons.

Partes Aedificii Generaliores.

ap tignum r. asseres.
ap later r. camentum
ap columna r. arcus
ap cancelli
ap scala
ap vallum r. agger
ap obex.

oiK Partes Specialiores.
ak ostium r. fenestra
ak caminus r. fornas
ak grunditas

ik vestibulum r. portico
ok contignatio
uk transtra l. tegulis r. copreoli
uk tectum 1. partes r. pavimentum.

Partes Naves.
at malus r. transenna
at clavis r. anchora
et remus r. velum.

Suppeleæ Varia.

fam canalis
fam funis
fam theca
fam acicula
fam acus
fam forfex
fam pecunia.

Frein Suppeleæ Domestica.

fran mensa
fran candela
fran vas
fran cathedra
fran sporta
fran arca
fran lectus.

Frein Suppeleæ Rustica.

fam aratrum
fam occa
fam ligo
fam currus.

Fei æv Communicandum.

fæ atramentum
fæ charta
fæ liber
Lexicon

FeiBDeig Voluptuariun.
fei b Musium.

fab organum pneumaticum
fab lyra
fab cymbalum
fab pandura
fab tympana
fab tuba
fab campana.

fei d Orulum Delectantia.

sad ludus
sad pictura
sad spectaculum.

FeiPTeiK Perniciofa.
fei p Arma.

sap gladius
sap bombarda
sap arcus
sap sagitta telum
sap hasto
sap clupeus.

AIv Concretum Spirituale
EIv Anima
OIv Angelus
Vv Homo seu Concretum
Compositum.
DEUS Sava, id est, Causa
prima.

Tabula Accidentium.

Seis Accidens Commune.
SAs Causa.

sam efficiens l. medium h. finis
san materia h. forma
san auxilium l. permissio h. impedi-
mentum
san instrumentum
san preparans h. conservans
san exemplum
san occasio
san meruitum
san fortuna h. consilium

SHs Modi Cristendii.

san independens h. dependens
san simplici h. compositum
san pertinere.
san salus h. periculum
san permanens h. mutable
san habere h. carere
san vivere h. mori
san vices
san ordinarium h. extraordinarium.

SEs Modi Aegendi.

sem incipere l. continuare h. finire
sem repetere
sem potentia
sem debere
sem oportere
sem expedire
sem facile h. difficile
san solere habitus
san spontaneitas h. violentia.

SIs Perfectio.

san bonum l. indifferens h. malum
san pulchrum h. deforme
san purum h. impurum
san utile h. noxium
san jucundum h. moleetum
san optum h. ineptum.
SOs Consentanea r. Dissentam.

som idem l. diversum h. oppositum
som respecticum h. absolutum
som privativum h. positivum
som consistens h. inconsistens seu con-
tradictorium
som actio h. passio
som subjectum h. adjunctum
som actus l. medium h. objectum
som substantia h. circumstantia.

Sls Gradus Comparisonis.

som valde l. mediocriter h. parum
som magis l. caque h. minus
som maxime h. minime
som prius l. simul h. posterius
som excessus l. satie h. defectus.

SVs Relatio Numeri.

Sum unitas h. multitudo
som totum h. pars
som reliquum
som propositio
som ordo
som commune h. proprium.

Beis Accidens Mathematicum.

BAs Aectiones primae.

bam longum r. breve
bam latum r. augustum
bam profundum r. breve, depressum
bam rectum r. curvum
bam continuum r. discretum
bam concavum r. convexum
bam planum r. gibbosum.

Bhs Positio.

bam perpendicularum l. inclinans r. ja-
cens
bam parallellum l. secons r. trans-
versum
bam rectus r. obliquus
bam acutus r. obtusus
bam incidentes r. refractus
bam directus r. reflexus
bam supinus r. pronus.

BEs Situs.

bam distantia r. contiguitas
bam supra r. infra
bam ante r. post
bam dextra r. sinistra
bam extra r. intra
bam circumdans
bam extremum r. medium.

Deis Physicum Generale.

DAs Maritime Communia.

dam motus r. quies
dam tempus r. aeternitas
dam praeteritum l. praesens r. futurum
dam novum inventum r. antiquum
dam locus
dam plenum r. vacuum
dam praesentia r. absentia.

Dhs Modi Motus.

dam gravitas r. levitas
dam celeritas r. tarditas
dam conatus

dam vis

dam sustinere r. innitix
dam cedere r. resistere
DEs Motus Simpler.
dem flectere
dem jacere
def vertere
def trahere
ded cadere r. surgere
deg tollere r. deponere
dep portare
dek contrahere r. dilatare.

DIs Motus cum Contactu.
dim concursus
din fricatio
dif terere
dib premere
did pulsio r. vulso
dig percutere
dip sigillare, imprimere
dit tegere
dik pungere.

DOs Motus Separans.
dom scindere
don frangere
dot lacerare
dob forare
dod solvere r. ligare
dog aperire r. claudere
dop plicare r. explicare
dot spargere r. colligere.

Drs Motus Retentio.
dom haerere
don tenere
dotprehenderes.

Geis qualitas sensibilis.
GAs Tartus.
gam calor r. frigus
gen humiditas r. siccitas
gal densitas r. rarius
gab durities r. mollities
gad craetitas r. subilitas
gag arriditas r. lubrititas
gap lento r. friabilitas
gat asperitas r. levitas
pak fluiditas r. consistentia.

Ghs Sabor.
gam dulce r. amarum
gam pingue r. austerum
gat insipidum r. salum
gab acre r. acidum.

GEs Stor.
gem fragrans r. fatidus
gen graveolentia.

GIs Domus.
gim articulatus r. confusus
gia echo
gif acutus r. gravis
gib fortis r. debilis
gid clarus r. obscurus
gig asper r. aequabilis.

GOS Color.
gom lux r. tenebrae
gon diaphanum r. opacum
gof album r. nigrum
gob flavum r. caruleum
god rubrum r. viride
gog pallidum r. purpureum
gop caesium r. fuscum.

Grs Communes Affectiones
mistorum.
gam mistio
GRAMMATICO-PHILOSOPHICUM.

<table>
<thead>
<tr>
<th>gum fermentatio</th>
<th>PEs Sensus Interni.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gum temperamentum</td>
<td>pem cognoscere</td>
</tr>
<tr>
<td>gum concretio</td>
<td>pem memoria</td>
</tr>
<tr>
<td>gum concocoio</td>
<td>pem phantasia</td>
</tr>
<tr>
<td>gum alteratio</td>
<td>pem appetitus</td>
</tr>
<tr>
<td>gum generatio r. corruptio</td>
<td>pem voluptus</td>
</tr>
<tr>
<td></td>
<td>pem providentia r. experientia.</td>
</tr>
</tbody>
</table>

**GVs Affectiones Vegetabiles.**

gum nutritio r. fames

gum fertilitas r. sterilitas

gum pallulare

gum crescere r. decrescere

gum florere r. marocserce

gum sanitas r. morbus

gum maturitas r. immaturitas.

**Peis Accidentia Sensitiva.**

**PAs Generaliora.**

pam spirare

pam vocem edere

paf edere r. bibere

pab vigilare r. dormire

pab sessus

pab mas gignere r. femina

pab libido

pat concipere r. parere

pak educare.

**PHs Motus Animalis.**

pam volare

pam nature

paf serpere

paf gradi

paf ire r. venire

pab saltare

pap fugere r. sequi

pap ducere

pak discumbere r. surgere.
LEXICON

PPVs Passionum Amnes.
puum curare
pun expectare
puf observare
pub cavere
pud attendere
pug simulare
pup suscipio
put audere.

SPAs Effectus Passionum.
spam ridere r. flere
span canere r. plorare
spaf ludere
spab quaerela
spad provocare
spag placere r. offendere
spap lis r. concordia
spat. insidiari
spak fallere.

SPRs Alii Effectus.
spam querere
span inventire r. perdere
spmt offerre r. acceptare
spab tradere r. recipere
spad sumere r. dimittere
spap luctari
spap laborari r. otiari
spat lassitude.

Teis Accidens Rationale.
TAs Actus Intellectus primi.
tam ingenium
tan conscientia

taf curiositas
tab apprehensio perceptio
tad astensus r. distensus
tag judicium
tap discuresus
tat meditatio
tak machinatio.

THs Ex Primis Ortii.
tam supponere r. inferre
tan addere r. subducere
tnf multiplicare r. dividere
tnb probare
tod comparare
tng mensurare
tap conjicere
tat includere r. excludere.

TEs Habitus Intellecutuales.
tem are
ten scientia
tef sapientia
teb opinio
ted intelligentia
teg discretio.

TIIs Intellectus Expressio.
tim affirmare r. negare
tin loqui r. scribere
tif interpretari
tib docere r. discere
tid interrogare r. respondere
tig narrare
tip fama
tit definire r. distinguere
tik restringere r. ampliare.

TOs Signum.
tom litera l. syllaba r. dictio
tun nomen r. casus nominis

tot figura

tob genus l. species r. individuum

tod propositio r. oratio

tog proba r. carmen

top periodus r. accentus

tot sectio caput

tok regulæ r. exceptio.

**TRs Voluntas.**

tun libertas r. coactio

tua deliberatio r. determinatio

tut consensus r. disensus

tab virtus r. vitium

tod electio r. rejectio

tug optare

tup credere r. diffidere

tut suscipere.

**TVs Voluntatis Expressio.**

tum suadere r. dissuadere

tum petere r. deprecari

tut benedicere r. maledicere

tab hortari r. reprehendere

tud laudare r. vituperare

tug minari r. consolari

tup imperare r. obedire

tut consulere.

**STEis Economicum.**

**STAs Relatio Morum.**

stam ceremonia

stam civilitas r. rusticitas

stof salutare r. valedicere

stob jocare r. iuvare

stob comitari

stag visitare

stap tractare

stob congratulati.
stog sponsonem facere
stop accommodare.

STra Modi Obligandi r. Dissolvendi.
sum promittere r. praestare
sum stipulare
stuf pignere
stuf fide jubere
stuf solvere
stug acceptilare
stup condonare
stut compensare.

Keis Politicum.
KAs Relatio Officii.
kam dominus r. servus
kam res r. subditus
kaf clericus r. laicus
kab tutor r. pupillus
kad legatus
kag duus r. miles
kap consiliarius.

KAs Relatio Officii in
Judicis.
kam judex r. litigans
km patronus r. cliens
kaf actor r. reus
kub testis
kud officialis.

KEs Judiciorum Materia.
kem res r. persona
ken actio causa
kaf jus r. factum
kob lex
ked titulus.

KIs Partes Litigantium.
im citare r. apparere
kim allegare r. probare
kif causam agere
kib accusare r. escusare
kid appellare r. submittere
kig confessio.

KOs Partes Judicis.
kom decernere
kon absolvere r. damnare
kof punire r. parcere
kob proscribere
kod arrestare
kog incarcerare
kop confecerare.

KIs Delicta.
kum injuria
kum furtum
kuf fornicatio
kub rebellio
kud factio
kug heresies
kup crimen falsi
kut prudicio
kuk incantatio.

KUs Bellum.
kum invadere r. defendere
kum excubare
kuf obsidere
kub presiari
kud inducere
kug captinare
kup spoliare
kut vincere r. dedere.
SKAs Religio r. Superstitio.

skam grata r. natura
skan felicitas r. miseria
skaf colere r. profanare
skab jurare
skad orare r. laudare
skag sacrificium
skap sacramentum
skat mysterium
skak miraculum.

Particulæ Pronominales.

lal ego
lal tu
lal ille
lal hic
lal ipse
lal qui.

Fleriones Grammaticae: Singula Exempla pro Regulis habentur nullam exceptionem patientibus.

Sim bonus Radix, in Oratione

Particula.

sim indifferentem medium
sim maius oppositum
simus bonitas
simus bonitates.

Adjectiva Varia.

pone amans activum
pone amatu passivum
Simae bonus neutrum
ponemp amores et as
ponomp amabilis

ponomb amandus
ponomb amaturus

Gradus Comparationis.

simam valde bonus
simam mediocrer bonus
simaf parum bonus
simab melior
simad aequae bonus
simag minus bonus
simap optimus
simat mediocrer bonus
simak minime bonus.

Fleriones Temporis et Modi.

ponere facio amare
ponesam amare
ponesam amaveram
ponesam amabam
ponesi amo
poneseo amato
poneseo amator (imperative)
poneseo amare
poneseo amari
poneseo amant
ponompai amabiliter.

Alta Berbatiba Compendii
Causa.

ponel persona amans
sumilli omnes personae
ponor amatum vel res amata suntirri
omnia vel res omnes
nymph magnus lapis
nymph lapillus
nymph cumulus lapidum — oi Exoticum;
Angloi Galloi.
Etymologia Præcipuarum Particularum.

Ab sod sam, bem
ac tef
ad shod, brem
adhuc siem, subdan
aliquis sum shun
an tid
ante bef
apud bem, shombem
at stam, truf trimshaf
aut truf, stam.
Circum beg
citra loinb, shg
contra shom
coran bef mssii
cum shb, daf, slam, sab
cur aliusas.
De srf, shop
deinde shudan, shubud
denique shubapdan
deorsum bresren.
E ex san, bed
ergo, leelas, trum
et tef
etiam tef
etsi trum
extra bed.
Fere sufehun, sumshuf
forte sak.
Hic loidan.
Jam loidan
ideo leelas
illic leidad
in bred, dan
inter bem, breg, gvm
interdum shundan
interim luidan, loidan, dlaf
intra bred
inviciem ent, sum, sum
ita tim
iterum seu, en
item tef
juxta brem, shumbem, slen, sos
Magis en.
Nam sas, tef.
ne trim
nimis sud
nimis-parum erud
non trim
nunc loidan.
Ob sham, sas, shom
omnis en.
Per sod, sam, sab, sag, slam, brem, blen
post shub, bref
præ sas, bef
preter sas, brem
preteres tef, en, shub
pro en sas, bef sub
prope shombem, sufehun, shumteuf
propter sham, sas, shumbem.
Quam sas tef
quasi slen, ses
qui vel quis lul
 quoque tef, slen.
Satis sub
sed shom, tref
secundum sos shambem
sine shg, draf, sof
simul sub
sub ded, shub, bren
super drom, bren
sursum bresben
supra ben.
Tam sivm, lolbes, lelbes
tamen trimshaf, tnm
tandem shub, dan bam
tenus bns brem
trans brm shomied.
Versus bns
vel trnb
vix shep.
ullus av
ut sham, sivm.

<table>
<thead>
<tr>
<th>Oratio Dominica.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pagel lalla lul tim bred Nammi, 1.</td>
</tr>
<tr>
<td>Tofu lla skamroso. 2. Kanu lla prereso. 3. Tvesu lla samoso ben Nommni, sivn ben Nammi. 4. Stifeso shod lalli loldance, flamu lalla danvesa. 5. Stveso shod lalli strekku lalla, sivn, lalli stvesi shod strekkel lalla. 6. Trim ptveso lalli trdosv shom, sobeso lalli sod shimu; sos, Kanu Sefu, tnu tim lla, loldan tyf sundan. Tuposo.</td>
</tr>
</tbody>
</table>
CAP. I.

DE PRIMIS SIGNORUM ELEMENTIS, SPECIATIM VERO DE SONIS SIMPLICIBUS.

Artem primam maximeque necessarium, Artem scil. Signorum, hucusque neglegam, alias vero (quantum fine hac poterant) ingeniøse et laboriose excultas, inertiæ genus humanum accusabo? Anne potius Numinis speciali Decreto, Artem hanc tantas in rebus humanis mutationes portendentem, in ultima Mundi tempora reservante, excusabo? Artem igitur hanc ab aliis non inventam, mihi vero vere repertam patiæeturus, a primis ejus Elementis Literis sc. exordium dueam; earumque Philosophiam paucis et perspicuetradam.

Optime meruit de genere humano, qui primus docuit voces humanas in quodam simplicissimos primos et irresolubiles sonos resolvere; quam Inventionem certissimum est præcessisse Inventionem Literarum Alphabeticarum, quam nos vulgo miramur; haæ enim nihil sunt aliud quam Signa Signorum, id est fonorum, adeoque illis necessario posteriora. Non quidem dico hanc Inventionem omnem Literarum usum præcessisse; nam non minus certum videtur usum Characterum, quatenus Rerum ipsarum et mentis Conceptuum immediate significativi sunt, ante hanc prius longe cognitum fuisset: Imo judico usum Literarum hoc senfu fuisset ab initio, licet homines in materia solida et ad figuras conservandas apta nondum scriberant: qui enim caput nutat, oculo connivet, digitum movet in aere, &c. (ad mentis cogitata exprimendum) is non minus vere scribit, quam qui Literas pingit in Charta, Marmore, vel ære. Ratio cur judicem Characteres extitisse ab
ARS SIGNORUM.

initio, est quod non minus naturale sit homini communicare in Figuris quam Sonis: quorum utrumque dico homini naturale; licet scribere has vel illes figuræ, vel loqui has vel illes voces, fit omnino ad placitum. Præterea Characteres Reales fuisses in ufu ante Characteres Vocale, Synenæ et Ægyptios, populos antiquissimos testes compello.

Sonorum simplicium numerus et differentiae, a diverso modo aperiendi et claudendi Organa pronunciationis petenda sunt; quare primo dividii pos- sunt Literæ, in apertas et clausas.

Apertæ principialiores (non enim est animus differentias minutores per- sequitur) sunt septem: quarum valor, ordo, et soni differentia videantur supra. Hæ iterum sunt Gutturales vel Labiales. Gutturales sunt quatuor, quarum pronunciationio gradatim procedit, a sonum maxime aperto a; per sonum paulo contraçãorem; et tertio e adhuc contraçãorem, et gutture strietio pro- latum; ad quartum i sonum contraflissimum, et strietissimo gutture forma- tum, ideoque acutissimum. Labiales sunt tres; quas tæ voco quod fine labior- rum ope et motu formari nequeunt. Harum o est maxime aperta, hoc est contraçãoem labiorum minime poscit; u contraçãois labia in ipsius forma- tionem requirit; u maximam labiorum contraçãoem et conatum postulat.

Quot modis hi soni simplicies coalescere possunt in dipthongos, non mora- bor curiose inquirere: Hoc tantum tenestur, sex esse dipthongos sonatu et distinctu facile, ni. ai ei ei au eu ou, qui esserri possunt continuato spiritu, ad modum unius simplicis soni: et ratio hujus est, quis componentur ex sonis maxime apertis precedentibus, et maxime contraflis sequentibus; ideoque facilis est cadentia organorum coelem spiritu in his formandis.

Literæ claudiae organis formate principialiores et omni populo pronunciationi facile, et quibus folis idcirco hic ufurus sum, sunt duodecim: Hæ dividuntur in semiclaustus et perfecte clausas.

Literæ semiclaudæ quæ et semiiclaudes appellici possunt, sunt tres; s r l in quibus formandis organa oris non clauduntur perfecte, sed continuatur spiritus transpírator per os; et ex varia percussione palati per lingue extrémitatem (quæ organum pronunciationis precipuum est) formantur.

S' formatur per, contactum palati et laterum lingue, media parte lingue a contactu abstinente; per quam tanquam per fistulam, spiritus sono fibilo emittitur. De sono hujus Literæ audivi virum doctum hoc pecu-
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liare observantem, quod nequeat efferri fono claro, sed ad modum susurrī: quod quidem verum est, sed non de hac litera sola; nulla enim est litera aspirata ex tribus mutis, quae fono claro proferri potest. Ut hoc distinctius perspicatur, consulto ut inter pronunciandum diu hereatur in harum literarum formatione: et sic observabat ingeniosus quilibet, licet altissima voce exclamet, proferendo vocem ex his literis et vocalibus conflatam, dūm sonat vocales sonus erit clarus; sed cum ad has literas sonandās pervenitur, statim sonus clarus vane sit in sufrum, e.g. as with life.

Sonus r est fortis vibratio extremitatis linguae contra palatum; hinc est quod qui nervos linguae habent debiles, non facile formant hunc sonum.

L, formatur modo contrario quo S, extremitate sicil. linguae palatum tangente, lateribus vero a contānu abstinentibus, ut transfinittatur spiritus. Hic notetur: nihil me unquam magis vexavit, quam invenire veram differentiam inter literas n et l; auribus enim percipiebam sonos distinctīmos, at vero in organorum contānu, unde omnem sonorōm differentiam exoriri fatis fciebam, vix quidem ac ne vix, per multos dies differentiam ullam observare potui; saltem quam describere poteram. Verum ex jām dīcis et statim dicendis fatis clarea describi potest harum literarum differentia; in formatione enim l spiritus per eos transfinittitur, in n per nasum.

Sonii perfecte clausi sunt novem, qui dupliciter subdividi possunt; vel primo, ratione differentiae organorum quibus formantur; et sic in tres ternarios numeros dividuntur, labiales m b p, linguales n d t, et guttāres f g k. Vel secundo, distinguo possunt secundum differentiam soni editi in iis formandis; secundum quam differentiam ego eas hic dispositi, ut potes in formam accedi accommodatiorem; et sic sunt vel Nasales seu transpirantes m n f, vel Suffocatēs b d g, vel Mutae p t k: Nam ratione organorum pronunciationis præciā, tres tantum sunt literae perfecte clausae; sed haec tres clau-surae multiplycatis per trinam differentiam soni faciunt novem.

Nasales ideo fico voco, quod dum organa oris clauduntur, continuatur sonus per emissionem spiritus per nares; clausis enim naribus, haec litterae formari nequeunt. De his tria hic monenda sunt. Primo ex hac naturali et genuina sonorum analyf detegi (vel saltem confirmari) litteram fuerit sonum vere simplicem dari, quae vulgo per duas literas differentiam organ-
orum, ideoque in eadem syllaba minime unibilium, absurde scribitur: Hic enim sonus ex natura rei ipsius, non minus facilis est vel in principio vel fine vocis fine alia consonantera, quam aliae duas litterae nasales m et n; licet respetu nostrorum non ita fit; nam nos nihil facile facimus nisi quod sepe facimus. Secundo, cum in vulgaribus nostris linguis nullum habeamus Characterem simplicem ad exprimendum hujus soni valorem, ideo mutatus sum Characterem f ad hunc sonum significandum. Tertio, propter hanc causam Characterem f pro dicto fono substitui, quia hic hihi propitum est omnibus modis facilitati confalere, (quæ etiam causa fuit, quod omnes alios sonos simplices rejecerim; quia parci vel nulli eorum sunt, qui facile pronunciatur ab omnibus populis, sed apud varios populos admodum varius est eorum usus) ideoque hunc sonum, licet perfectissimum et distinctissimum ab aliis; cum tamen a nullo populo cujus littere ad nos pervenissent fit utusatis, nisi ante suffocatum vel mutum fui organi (et tunc quidem Characterem proprio non scribitur; Graeci enim per γ αγγαλιζ; aliae gentes per n ut languor, angus) ideo inquam, hunc sonum ex hac lingua ejeici, cujus loco substitui litteram f; facilis et distincti foni. Si tamen aliter viam fuerit viris doctis, poterit retinere sonus proprius litteræ gutturalis Transpirantem, seu Nasalis sub Characterem soni f.

Suffocates b d g formantur eadem clausura organorum qua Nasales; sed spiritu magno nisi retento et suppresso in guttate. Hic notetur litteram g, ut vulgo in Georgius sonatur, non esse litteram simplicem, sed compositam ex d et sh, quasi dekhordsius.

Litterae Mute formantur eadem clausura organorum qua supra dixit; sed omni interno spiritalis motu et fono cesseante post organorum clausuram factam.

Præter his duodecim consonantes principales jam enumeratas, omnibus hominibus organa illæ habentibus pronunciatus facile, quibusque solis (ut dixi) ideo hic usus fum, alii sunt sonus simplices ex his orti, ni. ex aspiratione dictarum suffocatorum et mutarum oriuntur sex; e f ex b p; th ut fonatur in the et thihe, ex d; th ut fonatur in thrice, ex t; gh (qui sonus est germanicus) ex g; et z ex k. De his notandum primo, quasdam harum aspiratarum, licet duabus characteribus descriptas, esse tamen revera
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fimpleces fonos non minus quam f et v que unico charactere scribuntur. Secundo, Nationes externe male accutant nos Britannos blassitas dum litteras d et t aspirate pronunciamus; qui soni illis durissimi sunt. Sic populo Anglicano vicissim peculiare est, abhorrere a gutturalibus aspiratis. Corruptit etiam, ut plurimum, fonos a et i, quafi e et ai: non tamen omnino respuunt Angli fonos a et i, familiares enim fatis illis sunt hi soni, licet diversis characteribus notati; a enim per au scribunt, et i per ee, ut lowe, sawe, peel, feel.

Contigit aliquando verba habere cum curioso quodam rerum naturalium [causas] serutatore, qui caufam varietatis hujus fonorum apud diversos populos, ecle folique temperiem affignabat. Non quidem diffiteor causas naturales esse operativas in fonorum diversitate; verum causas proximiores reddi possunt, quam regionum temperies, ni. corporis temperamentum, quod fepiffime plus diversitatis producit in hominibus in eodem loco natis, quam videmus inter alios in diversis mundi climatibus. Quare hoc certum est, causas naturales variare fonos quoad eorum modulationem; hoc est, quod sunt graviore, clariores, asperiores, &c. at vero adscribere causam differentiam sonorum, qui ex distinctis organorum clausuris et contactibus orintur, vel regionis, vel corporis ipfius temperamento, est revera ignorantiam vere causae differentiarum sonorum prodere: mihi enim experientia comprobatum est, posse Anglos gutturales aspiratas fatis distincte pronunciare, ut etiam alios Populos gutturales linguales. Nulla igitur ratio reddi potest, cur Angli averfantur fonum χ, externe nationes vero a, quam cur Angli vocant urbem town, aliae Nationes alis vocibus.

Z est $S$ suffocatum; hoc est, differt ab $s$ ut $d$ a $t$ vel $b$ a $p$, &c.

Est et alius fonus fimplex, qui paululum differt ab $s$, qui vulgo scribitur $sh$: Hebrei proprio Charactere notant $ш$ qui etiam dupliciter sonatur, ni. muto et suffocato fono; unde oritur duplex litera, cujus fonus suffocatus nobis Britannis non est ufatus, sed ni fallor Polonis familiaris.

Tota effentia literae ש conffitit in forti spiritus impulfo in vocalium prolatione, five id fiat spirando, five respirando; et hæc de fonom simplicium numero et principaliobus differentis.

Quemadmodum foni simplex aperti coalesceunt in unum fonum continuatum, qui dicitur dipthongus, sic claufi fepiffime in unum continuatum
fonum in eadem syllaba coalescunt: quare explicatis fonis simplicibus clausis, quasdam regulas de earum compositione tradam; ni. de principaliioribus fonis Compositis, ut monui de diptongis.

Primo, Hae est Regula certa et universalis: Nulla litera unius organi naturaliter precedere potest literam alterius organi, in principio syllabae. Hinc excipiatur s quae ante quamvis aliam in principio syllabae, vel post quamvis aliam in fine syllabae fatis euphonice sonat, licet in nulla (quod sciam) lingua, suffocatis b d g preponatur, quod propter indicatur nec ego hic seci. Raro etiam inventur ante r; Analogia tamen hujus Linguae coegit me in quibusdam vocibus componere sr: videbam enim fonom in se fatis esse euphonicum et facilem. Lingua etiam Anglicana admittit r post sh, fonom s maxime affinem, et quidem multo duriorem, ut shrewd, shrine. Videbitur fortassis sf (ubi per jam intelligo gutturalen nasalem) fonom non naturalis: verum ut supra demonstravi j solitarie fonari posse in principio syllabae, non minus quam m n; sic etiam compositio sf non minus est naturalis, quam sm sn.

Secundo, In fine syllabae Nasales euphonice valde sonant ante suffocatus vel mutas ejusdem organi; ut lamb, lamp, and, an, long, ink. Ubi notandum in long et ink non n sonatur, nec quidem fonari potest, sed gutturalis Nasalis. Durus tamen est Germanorum fonom componentium Nasalem suffocatum et mutam in eadem syllaba; ut hand, landt.

Tertio, Semivocales r l bene componuntur in principio syllabae cum suffocatis et mutis, quae compositio mihi in frequenteribus magni est usus: durius tamen paululum sonat l post d et t, quia eadem fere (ut dictum) clausura organorum formantur. Et licet analogia hujus linguae postulat fonom l componi cum d et t, tamen evenit in ista parte Lexicis quae sub d et t est, paucas notiones habere proprie dictum medium cujus l est characteristicum.

Quarto, r et l in fine syllabae ante quamvis aliam consonantem bene sonantur, sed post nullam. Jamque doctrinam de fonis simplicibus cum his observationibus absolvam.

Primo, Omnium Linguarum Grammaticae in Literarum numero vel defective sunt, vel redundantes; quasdam enim fones complexos unico charactere, alios vero fones vere simplices duoibus characteribus notant.
Secundo, Nulla ante-hac ratio ordinis literarum reddita est; sed non minus fortuitus est ordo literarum quam institutio vocum.

Tertio, Ex convenientia quam videmus respeçtu methodi in omnibus Alphabetis, manifestum est literarum Inventionem unicum Autorem habuisse; Literae enim A B primum locum obtinent in Alphabetis omnium Linguarum. Quod ordo sequentium Literarum variet, ratio est, partim quod quedam literae postea additae sunt post primam inventionem; quaedam etiam a quibusdam Gentibus eliminatae sunt cum quilibet populus literas recipientes Linguis suæ adaptavit: aliae sunt variationes in numero et fere literarum apud varias nationes ex aliis accidentibus, quorum causas reddere est difficile.

Quarto, Ex fonorum Analyfi hic tradita fatis intelleçta, statim sequitur eorum recordatio.

Quinto, Prinquisquam caput hoc de fonis absolvero, docebo ex supra dixta analyfi Artém (quod quibusdam forte non ingratum erit) transmutandi voces cujusvis Linguis in alias diversissimas, et tamen fermo sic transmutatus eandem gratiam et euphoniam retinebit; adeo ut facillime dicerni posset, qua lingua quis utatur, licet senus verborum maneat omnino occultus, etiam ab iftarum linguarum peritis. Ars breviter hac est. Fiat commutatio labialium m b p cum dentalibus n d t; quod etiam fiat in earum aspiratis; et commutatio g cum k, et r cum l; exemplum,

Pipile pu tapure leguams sud peknihe thaki.
Sythreplem pemue Nusam nebipalis athema, i.e.
Tityre tu patulce, &c.

Nemo linguae Latinæ gnarus, dum audit has voces reçte prolatas, qui non fatis percipient eas esse Latinas, licet ita inverfæ ut nihil intelligat ex iis.
C A P. II.

DE CHARACTERIBUS.

QUEMADMODUM scientia transfertur a homine ad hominem per organum auris, mediantibus sonis, sic etiam per oculi organum mediantibus figuris. Poteft fieri communicatio per reliquos sensus; sed tardius, ideoque ad nostrum institutum nihil pertinet, qui medium communicationis brevissimum et rationi maxime confinentemque quaerimus. Si comparatio institutur inter signa vocalia et scripta, communicatio in sonis multo est expeditior inter præsentes; sed hanc vincit communicatio per figuram, quod, cum vox perit litera scripta manet. Per figuram enim communicari potest inter absentes, et ad quamvis distantiam; et quod præcipuum est, rerum memoriam preservan.

Hic diligenter est advertendum quod eadem fit Ars signorum audibilium et visibilium: quot modis enim componi possunt (secundum regulas Artis) figuræ simplices, et rebus significandis imponi, tot modis et eadem profrus Arte, componi possunt et variari foni simplices. Veritatem hanc ulterior sic demonstro. Ubi Ars ibi Methodus, ubi methodus ibi numerus, ubi numerus ibi aptitudo, ut res numeratae secundum ordinem numericum vel figurum vel vocibus significetur: quod fatis est evidens ex signis numericis, a me in hoc opere traditis. Hoc noto propter imperitiam eorum (pro quo errore etiam homines dociunt increpandi) qui Artem Signorum in mutis figuris, hoc est Characterem Universalem (ut vulgo appellari folet) mirantur, sed de lingua nova audire non ferunt: cum tamen nemo Artem communicandi per figuram tradere potest, quin eadem Characteris praecepit sint eadem ratione fonis applicabilia. Hoc quidem me ipsum diu latuit, postquam detexerim hanc Artem in figuris: et fuit incredibile videbatur suceptum meum primum de Charactere muto, non solum vulgo sed plurimis viris docitis; hoc vero secundum adhuc magis fidem superabat, etiam multorum quibus abunde satisfactum erat de Arte figurarum.
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Ratio autem quod homines adeo prejudiciis laborant contra Linguam novam, et Characterem mutum miratur, est primo partim propter famam Characteris Universalis seu Realis, quo nomine indigitata fuit hie Ars ab iis qui de Literature desideratis traetarunt. Secunda hujus rei ratio (quae etiam reddi potest ratio cum viri docti nihil vel parum dixerunt de Linguar Philosophica, desiderata Artis enumerantes) est propter ignorancem hujus egregiae veritatis; quod quicquid praestari potest in figuris, idem eadem Arte praestari potest in sonis; ut supra oftensum est. Tertio, vulgus plus novitatem et Raratatem Artium admirari solet, quam veritatem: communi-
care autem per signa mere *musa*, est quid novum et raram; per *figura* in *sonor* resolubiles est ordinarium.

Suadebant mihi Rei Literariorum amici et etiam mei, Artem hanc primo in *Musis Characteribus* exhibere, *Lingua* reticendo; quo hominum curiositati, ex rei omnimoda novitate magis placerem, atque sic ipsos ad ejus studium facilius allicerem. Verum hie non videbatur mihi bonus dolus, propter hanc rationem. Certum quidem est tantum esse hominis *curiositatem*, ut ad res *novas* et *raras*, quodam quasi curiositatis ardore et flamma omnes advolent: verum non minus certum est, *fusidium* quodam occupare mentes humanas post vias res *novas* et *extraordinarias*, nisi usus alicuius in illis perciatur. At vero in iis rebus, quorum usus ipfis plus commendat quam *novitas*, licet homines tanto impetu in illas non ferantur, attamen cum usus fit bonum *permanens* et *perpetuum*, novitas vero cito *transiens*, si non tam avide eas amplectantur, amplexas tamen majori cum voluptate retinent. In duobus autem demonstro usum *Lingue*, id est facilitatem communicationis, majorem esse quam si in solo *muto Character* hanc Ar- tem patefiscerem. Primo, Nulla subsidia mnemonica haberi poterant ad *Characteres Radicales* memoriae imprimendos, quae hic valde memoriam adjuvant. Secundo, In *Charactere* folio patefasciendo oportebat novas *figuras* formare, quae licet pauca admodum fuerant, et eadem Arte unibiles ad unicum *perfectum Characterem* constituentum, qua hic litterae ad unam vocem faciendum, tamen aliquid oneris memoriae necessario secum attulissent: hic vero, retinentur *Characteres* prius noti omnibus Europae populis.

Cum igitur (ut dicium) *Ars Characteris et Sonorum* eadem fit, omnino par erat et rationi consentaneum, ut quod facilis erat primo proponetur: qui enim *Lingue* usum prius calluerit, possum illum *Characteris* Arten *spatio* unius horae docere. Quare cum ex hac Arte usum vere intendam, hac Methodo Docendi usus sum, utpote fini meo maxime accommodato; ideoque impresentiarum de *Characteris* Arte nihil plus addam, nisi quod, ficta deleatricum feci *sonorum simplicissimorum* et maxime euphoniorum, sic etiam *Characteres* erunt simplicissimi et *figurae pulchrae* et uniformes: nullae erunt caude dependentes, nulli apices eminentes.
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CAP. III.

DE RERUM SERIE PRÆDICAMENTALI.

ABSOLUTA Doctrina de primis Signorum Elementis, quantum præsentis Institutii ratio postulabat, et brevitas finebat, priusquam accedam ad signa integra, ex his componendum, rebusque ipsis imponendum, necessarium erit Rerum ipsarum naturas paululum introspicere: hoc enim est malum, cui remedium querimus in aliis Linguis, quod prima nomina Rerum omnino fortuito, et fine ullo consilio vel respetu habito ad res ipsas pro quibus supponuntur, fiant imposita. Cum enim Signa a nobis pro Rebus ipsis supponantur, omnino ratione confertaneum est, ut Ars Signorum Artem Rerum fequatur. Et fuit judico Metaphysicam et Logican tamquam tantum constituere Arthem, sic Grammatica non aliter vel plus differt ab his, quam Signum a Signato; cumque haec correlata sint, omnino eorum eadem debet esse scientia. Quare, qui cum Ratione Nomina Rebus imponere velit, primo oportet in Chaos istud Mundii Idealis in animo existentis, per quasi creationem Logicam, formam, pulchritudinem, et ordinem introducere; quo facta facile erit ejus partes Nominibus aptis appellare. Sicut enim manus pistoris in feulpendis Imaginibus, per internam Mentis Ideam ex objecto extrinsecus vivo genitam, regitur, sic Grammaticus, secundum Ideas et Regulas Logicas a Rerum ipsarum natura extrinsecus existentium petitas, Nomina illis imponere debet. Hae autem ordinata Series Rerum vulgo dixi folet Prædicamentum: De quo in genere paucia hic dicenda sunt.

Opinio est quorundam hujus Sæculi Scriptorum, qui in quibusdam Philosophiae partibus Inventores, in omnibus vero Reformatores se jacent, nullum esse usum Doctrinæ prædicamentalis; hoc est revera, strictam Metodum in Artibus docendis non esse necessariam: quo nihil absurdius et Philosopho indignius doceri potest. Quo enim tendunt omnum Philosophorum conatus in variis Philosophiæ partibus, nisi eo, ut Rerum naturas aperiant, differentias et convenientias scrutando, fique, Methodo et ordine

Quandoquidem probabile admodum fit, Libellum hunc ad multorum hominum doctorum manus perventurum, idea placuit hic paucis invente Rationes, propter quas seclusa fide ex Dei Revelatione, his duabus Maximis (et quidem mihi aliarum omnium primitis) veritatibus ipses assentiam.


Primo, praeter nature vocem in omnibus hominibus Numen suuicientem et invocantem, uterius sic colligo esse Deum. Esse Causam primam esse prima veritas; ergo esse prima veritas esse Deum: Causa enim prima et Deus mihi idem significant. Verum

Secundo, Animam Humanam esse Immortalem, quod magis dubitatur et apertius contradicitur a multis (licet revera qui hoc negant per necessariam consequentiam Dei exstitentiam etiam negant) sic licet colligere. Nulla potentia Materialis et Mortalis elevar potest ad Deum Immateriale et Immortalem apprehendendum et contemplandum; sed anima humana elevatur ad Deum apprehendendum et contemplandum, ideoque etiam appe-
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tendum et ut suo summo bono fruendum; ergo non est Materialis et Mortalis, sed germen et propago Divinæ Naturaæ: cui optime consentiunt S. Script. phraœs, Animam appellando Dei Imaginem, Candelam Domini, et Deum Patrem Spirituum. Minor hujus Argumenti patet, nec ab adversariis negatur; Ratio Majoris est, quod inter omnem A&um et Objectum intercedere debet naturæ proportio; quod etiam principis immortalitatis adversariorum est confitaneum, dum docent Mentem corpoream res incorporeas apprehendere non possit.

Renatus Des Cartes, vir in multis ingeniooffimus, videtur mihi hoc Argumentum tractans, fundamentum jecisse in aremis; magnum enim apparatu verborum, et singularem Methodum affectans, ad hanc veritatem demonstrandum procedit; cujus tamen Argumenta mihi potius dulcesphantasie vel Meditationes (ut ipse loquitur) quam rigidas Demonstrationes videntur. Primum et maximum ejus Argumentum ad hanc veritatem evincendum, tali est. Possum ego supponere, nihil existere extra me, vel Deum, vel Coelum, vel Terram; vel me habere manus, pedes, oculos, &c. et tamen omnibus his remotis, manet verum ego Cogito, ergo etiam hoc, ego Sum.

Miro neminem hujus suppositionis fallaciam detextisse: est enim non minus implicatoria quam hæc. Suppono nihil corporeum existere extra me, tamen verum manet, ego video, ego audio; omnis enim Actus tam Spiritualis quam corporeus necessario supponit objectum. Et qui per suppositionem tollit objectum, necessario tollit et ipsum actum; qui enim cogitat, de aliquo cogitetur necesse est, non minus quam qui videt, audit, necesse est objectum aliquod his facultatibus proportionatum habeat.

Si quis ad hanc suppositionem fulciendam diceret, possit Anima habere pro cogitationis objecto seipsam: Ad hoc Resp. 1. verissimum est, animam possit super suos actus directos reflectere, hoc est scire se scire: et hoc secundum est meum principale Argumentum pro Animæ Immortalitate, sic enim arguo.

Sicut primo, illa Natura, quæ ad Deum contemplandum, appetendum et fruendum elevatur, necesse est Immaterialis et Immortalis sit; Sic secundo, illa Natura quæ super suos A&us reflectere potest, et se contemplare, necesse est hanc Naturæ Divinæ participem esse: sed Anima, &c. Ratio Majoris est, quod fit perfectio soli Naturæ Divinæ competentis, fe
contemplare, appetere et frui: Illa enim Natura quae potest super se reflectere, se appetere et frui, nulla alia re existente, est Deus. Quare cum Anima posset super se reflectere, (licet non in supra dita suppositione, sic enim effet revera Deus) certum est hanc potentiam esse partem Imaginis Divinae.

Sed secundo, quid hoc ad dictam suppositionem fulciendam, quod Anima posset de se cogitare? Omnis enim Actus Reflexus (in Creatura) supponit actum directum super quem reflectit: omnis actus directus dicit essentialem respectum ad objectum extrinsecus existens. Qui igitur per suppositionem tollit omnia objecta extrinsea, is etiam actum directum omnem tollit; qui actum directum tollit, is etiam actum reflexum, cum actus directus fit actus reflexi objectum. Actus autem Reflexus purus, sine omni suppositione prioris Actus directi, est solius Dei. Quare supponere Animam, nulla alia re existente, de se cogitare posse, est supponere impossibile; vel Animam esse Deus, quod est adhuc magis impossibile.

Tertio, Neque verba ipsa Authoris patiuntur hunc sensum; explicans enim se quid intelligat per vocem cogitare, dicit esse, hoc velle, illud nolle, de alio dubitare, &c. qui actus aperte referuntur ad objecta externa, quæ modo per suppositionem sustulerat.


Sed ne diutius a proposito digrediar, summam dictorum in hanc brevem circularem ratioconunclam colligo, que mihi principia prima et notissima continet (cum foil. non sensum, sed recte rationis ductum sequor) quæque
ad omnia Atheorum Sophistnata diluenda sufficiunt; *Aut ego sum Immortalis, aut Deus non est,— Aut Deus est, aut ego nihil sum*: jamque ad praedicamentum redeo.

Et interrogo illos qui praedicamenti nullum usum vident, quid significant haec voces *genus, species, differentia, definitio*, &c.? Certe, fine praedicamentorum suppositione sunt omnino absurdae et nihil significantes: omnis enim demonstratio supponit definitionem, definitio genus et speciem, genus et species ordinatam serie praedicamentalis. Et quidem si proprie loqui velimus, nulla est definitio vel demonstratio (licet Autorum scripta his vocibus abundant) quia nulla est constituta serie praedicamentalis: hinc est, quod quae habetur definitio ab uno, non merebitur descriptionis nomen (ut vulgo distinguunt) ab aliis; sic quod huic est demonstratio, illi est Sophisma.

Jecit Aristoteles quaedam rudia fundamenta praedicamenti, et nos nihil vel parum superstruximus. Posuit ille pro suo arbitrio decem Summa Genera Rerum, quasdam notiones quae sub his comprehendi nequiban, Transcendentes et Extravagantes appellando; ex quibus duo alia praedicamenta eadem ratione et Autoritate constituere potuisset. Ratio quod haec rerum ordinatio disippiceat, est primo, quod non fatis accurate distinguat Rerum notionem; cum eadem notio sepiffe diversis respectibus, ad diversa praedicamenta referri potest, Qualitatis, Actionis, Relationis, &c. Secundo, quod in recta ordinata serie Rerum, nullae sunt notiones Transcendentes admittendae, nisi genera respectu specierum et individuorum, Transcendentia quis dicere velit. Qui enim notiones Transcendentes ullo aliis fenstu admittunt, contradictunt praedicamenti definitioni ab ipsius tradita, ni, quod fit Series Rerum sub uno summo generi contentarum. Est igitur secundum hanc definitionem, fola notio Entis Transcendens.

Quid igitur fiit de his *unum, verum, bonum*? Omnino Enti subjugandae sunt, sunt enim reversa Accidentia. Unitas est Denominatio extrinseca, Rebus adveniens per Intellectus operationem, non minus quam dualitas, trinitas, &c. nihil enim est quod constitut Petrum unum hominem ante operationem intellectus, quod non eadem ratione, constitut Petrum et Paulum duos homines. Formalis etiam ratio Veritatis confitit in relatione inter actum Mentis et objectum. Sic denominatio Bonitatis dicet effentiale respectum ad appetitum, seu voluntatem aliquam. Imo Deus ipse
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O. M. ideo denominatur optimum, quod fit sive appetibilis: licet enim omnis voluntas creata ossaaret esse, vel appetere Deum, nihilominus maneret semper sive appetibilis, et actu appetitus ab appetitu perfectissimo, hoc est fuo; ideoque sive appetibilis bonus. Voces autem Res et aliquid sunt omnino Synonymæ cum voce Entis.


Primo, Male representeratur a Philosophis predicamenti natura, Arboris similitudine; cum nihil sit quod clarius illustret hanc Rerum et Notionum Seriem, quam Genealogia Generis Humanus. Sicut enim fide credimus, omnes homines ab uno primo Parente descendisse, sic ratione probamus, omnes particulares Notiones ab una prima notione Entis derivari. Hinc est quod recte vocari soletant Mentis humanae apprehensiones, seu perceptiones, Rerum Conceptiones: Res enim ipse sunt quæ est Pater, gignens in mentibus nostris suam Imaginem; Intellectus vero est Mater, habet imaginationes concipiens; et Memoria est uterus, in quo Rerum Imagines fecit genitæ gestantur. Et quemadmodum videmus numerum hominem, ex succediva et continuata generatione multiplicari; sic etiam notitionum numerorum ex Mente humana, corpora non minus facta, indies augetur. Et sicut est folus dicendus esset perfectus Historicus, qui omnia Adami geæta, et continuatam Seriem totius ejus posteritatis, omnesque eorum Actiones recitare poterit; sic ille folus dicendus esset perfectus Philo-
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sophus, qui totum numerum Rerum et Notionum, non minus numerosum quam est Adami Posterioris, decedendo et vicissim ascendo recitare poterit, omnesque mutuo respectus horum inter se computare. Hinc apparat, quantillum fit quod nos Homines scimus; Quam-quantum vero quod nescimus.

Secundo, si ex una parte, Rerum numerum pene infinitum, multiplexque et varios ipsarum respectus mutuos, ex altera parte imbecillitatem Intellectus humani respiciamus; expectandum non est, talem seriem Rerum Arte humana contrui posse, quae omnibus numeris, et ita absolute fit perfecta, et quoad numerum, et quoad methodum, ut nihil vel addi, vel demi, vel transmutari posset: respectus enim Rerum ita multipliciter variis sunt, ut earum Methodus secundum varias suppositiones et varias respectus, multipliciter variabilis fit. Nominetur enim quaeliber Philosophiae pars, et ad hanc tractandum adhibeantur separatim mille viri doctissimi; inveniretur duos horum in omnibus inter se non consentire: quod non est soli humanae imbecillitati imputandum (quod bene advertendum est) sed partim etiam, Rerum ipsarum naturae varietati, et respectui multiplici. Nihilominus, licet talis perfectio expectanda non sit, maximi tamen effet usus in Philosophia, habere unam aliquam plenam Seriem Rerum, suffragis multorum hominum doctorum comprobam, omnes principales et notas notiones Natura et Artis legitima subordinatione predicamentali per modum Generis et Species complectentem.


Quarto, In serie secundum haec secundum suppositionem stabilita, max-
ime naturale effet, eandem methodum observare in substantiis, et accidentibus ordinandis; cujus Methodi adumbrationem videre licet in Tabulis meis.

Quinto, Divisio Generum in hac Serie, procul omni dubio, optima et maxime naturalis effet Dichotomica, quae omnium Distributionem est optima, quia prima; est enim primum differentiis, quod fundamentum hujus divisionis exhibeatur clara, nihil est quod magis adjuvet memoriam. Quotiescunque igitur Memoria confunditur ex Doctrina Dichotomica, revera non tam Memoria quam Intellectus confunditur, qui nondum fatis clare percepit divisionis Rationem et Fundamentum.

Sexto, Distributio omnis Predicamentalis perfecsta, est facienda per differentias et Species positivas; secus enim nulla est legitima Divisio fæcta: nullæ enim sunt species rerum non existentium, et Differentiae negative nequeunt species positivas constituere. Philosophi et viri doceri verborum fallacia hac in re valde decipiuntur; cum enim voces Linguarum vulgarium non sint Philosophice instituta, et propterea cum nobis defunt voces ad exprimendas multarum Rerum Differentias Categoricas, hinc est quod cogamur fingere voces Negativas, ex vocibus positivis diversae vel oppositae significatio, ad Notiones non minus positivae significandae, quam sunt fitæ quæ vocibus positivis notantur: et sic propter defectum vocabulorum, Differentiae positivae contrarias, vocibus negativis exprimimus. Res hæc, licet a paucis observata, est tamen apertiffima; ut patet in his exemplis, æquale, inæquale, par, impar: notio enim inæqualitates non minus est positiva quam aequalitas; dicit enim unam quantitatem esse alia majorem; et quid magis postivum? Idem dicendum de par et impar: quæ Anglice, vocibus positivis reduntur, even, odd.

Septimo, male omnino, et fine ulla ratione, arcent Philosopher Artefacta a Serie predicamentali: Artefacta enim non minus sunt objectum nostræ cognitionis quam Naturalia; et non minus capacia sunt ordinis, et methodi, quam illa.

Octavo, Notandum in tali Serie, quamplurimæ darentur voces genericae; quales sunt hæ, Accidens, Qualitas, Quantitas, Relatio, planta, brutum, axis,
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CAP. IV.

COROLLARIA QUÆDAM GRAMMATICIALIA EX DICTIS DE PRÆDICAMENTO.

Ex iis quæ jam dixi de prædicamento in Genere, quod fundamentum est, et Materia in qua Grammatica, Corollaria quædam Grammaticalia deducam.

Primo, Constitutio illa Prædicamenti, quæ Notiones primas et simplicissimas (quarum numerum non superare decem opinio est quorumdam) primo loco disponebat; deinde composisset e his paucis simplicibus, pro ratione varia quæ ex his componuntur, et multipli respectu quæ ad se invicem dicunt, Fundamentum non est idoneum Artis Grammaticæ; idque propter duplicitem rationem, unam a Rebus ipsis, alteram a Signis petitant.
Prime, qui Analyfin accurastam omnium Notionum Nature et Artis, maxime complexarum, in prima sua Elementa, omnesque respe&bus mutuos simplicium in hoc Composito, curiosè persequeretur; toties necessario ab illo afluereuntur, et reafluereuntur hanc simplicia, ad varios respe&bus Compositi significationes, illudque ab omnibus aliis rebus perfecte dispermivandum; ut perfecta jam Analyfi, Notio hece una præ oculis poneretur, simplicissime, in tot Partes distributa a Philosophe curiosè, quot corpus humanum, post distinctionem, a perito Anatomico. Et quidem non minus difficile effet, ex tot partibus per hanc Analyfin jam separatim positis, colligere unam completam et integrum formam hujus Compositi, ita clare ut ab omnibus aliis Compositis ex ififem simplicibus distinguatur; quam ex differente cadavere in minutissimas partes, discernere cujus sit, an Petri, Jacobi, vel Thomae, &c. Non nego (ut supra docui) hujusmodi Analytes in penitiorem et interiorem rerum cognitionem ducere; Imo dico hanc esse summam Philosophiae perfectionem, pose quamlibet propositionem Notionem in sua prima principia resolvere: qui modus philosophandi utilissimus nimitis negligitur. Apparet tamen ex dictis, hanc Analyfin parum conducere ad hanc Notionem, fuit forma unius Compositi, statim unico Mentis a&u, fine longo discursum, apprehendendum.

Secundo, Si signa respiciamus, idem manifestum erit; hoc principium omnino ineptum esse, ut secundum illud Nomina Rebus imponatur. Supponamus enim Notionum aliquam, per dictam Analyfin distribui in centum, forte mile particulas, ad omnes minutae Differentiae hujus Rei, quibus ab omnibus aliis distinguatur, notandas: opereret, ut ad minimum, singulae particulas esse Differentiae unam literam, ad illas distincte significationem haberent; his igitur litteris in unam vocem collectis, Rerum Nomina in eam longitudinem exercrent, ut vox una integrum paginam implet.

Summe quidem cum illis consentio, qui majore acumine Philosophiae partem Analyticam contemplant, quam Philosphorum vulgus; quanto pauciora fuerint Signa Primitiva, ex quibus Rerum Complexarum Nomina, non ex mero Arbitrio, sed Logice et secundum Rei Naturam componentur, tanto perfectior erit Ars: Frustra enim sit per plura, quod sponde, vel magis comme feroe potest per pauciora. Verum in tanta paucitate Primitivum, ex nimia brevitate, nimia obscuritas oriretur: experientia etiam
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comprobaret, plus Arbitrii necessario fore in hujusmodi Compositis quam ipsis simplicibus.

Secundo, Nec illa constitutio Seriei Prædicamentalis, in qua omnes dif finuae Notiones Naturæ et Artis, tam complexae quam simplices, per ordinam seriem Generum et Specierum in lines Prædicamentalis collocarentur, adeoque distinctae Nominibus Primitivis notandas, esset structura hujus Linguæ principium accommodatum. Ratio est, quod numerus vocabulorum Artis et Rerum Artesiæarum, a nemine adhuc ad methodum Artis reduciarum, multo major esset. Imo, ut docent Philosopii, communem quodlibet minimum dividi posse in infinitum, sic non minus vere, quodlibet Genus vel species dividi potest per infinitas differentias: sic numeri, colores, soni, passiones animi, &c. Natura autem ipsa in omni homine docet Rerum Naturam sub communi et universaliter respectu considerare, et ex paucis quibusdam Communibus Rerum rationibus, particulas Rerum naturas describere: quamobrem, omnino sequum est, ut Ars (quæ nihil est aliud nisi Natura Exculs) rationes Rerum maxime communes doceat, ex quibus particularium Rerum Naturæ describi posse.

Quare Tertio, neutrum horum extremorum sequendum judicavi; sed viam medium inuedam (quæ in Rebus multis maxime probatur) hoc est, selectum numerum principalium Notionum, ex primis et præcipuis Scientiis esse delegendum, earum scil. quæ respectus Rerum Communores dicunt; et has pro primis supponere, illeque significandis voces Radicaleis imponere, ex quibus alienum Rerum complexarum Nomina conficerentur.

Quot autem praecit numero sint hæ Notiones, et secundo, quemam nominatur tales sint habendae, et tertio quo ordine inter se collocandae; in his quæstionibus resolvendis, veritasse dici posse, quot capita tot sententiae. Censero tamem omnes viros vere doctos mecum in hoc confessuros, nullam harum quæstionum determinari posse fine multo Arbitrii. Ingenii vero mei Menfuram circa eas haberis potest ex Tabulis seu Lexico hujus operis: quas non offero ut Seriem Rerum summæ perfectam, vel quoad Numerum, vel Methodum Notionum inibis contentarum; sed multum Arbitrii habere admixtum agnosce: hactenus enim doci, hanc Artem Signorum strictas Leges Philosophiae non pati.
CAP. V.

EXPLICATIO TABULARUM.

Quandoquidem jam ad folios doctos scribo, quibus paucis verba sufficient, non morabor longam disputationem instituere de singulorum Notionum natura et Methodo; sed paucis tantummodo seriem hanc Rerum adumbrabo, rationem diffensus mei a vulgari opinione in quibusdam breviter inuendo, qua obvia sunt præterrnudo.

Cum Philosphis omnibus sanioribus Contentio, dari unum Summum Genus, et primum et communissimum conceptum, quem solatum appellare Ens, seu Res. Verum in primis Differentiis Ens dividitibus, sententia mea ab illorum differt: Tam cito seil. orientur opinionum differentiae inter nos homines, quam in ipsis rebus inveniuntur. Docent illi substare et accidere primo dividere Ens: Mihi vero videtur, Seriem perfecte predicamentalem constitui non posse, secundum quam legitima prædicationes fieri possunt, nisi Differentias concipiamus magis latepatentes, quæ adequate dividant Ens, sub conceptu et respectu communissimo: hæc ego vocavi, abstractum esse et concretum esse; vel simplex et compositum; vel statum rei incompletum et completum; Ens vero incompletum secunda diviisione, in Substantiam et Accidens dividendo: nisi quis mallet uti divisione trichotomica, sic; Ens est substantia, accidens, et Compositum; quæ forte in hoc cafu, et quibusdam aliis, non minus est perfecta quam dichotomia. Ratio diffensus est, quod omnis prædicatio Generis, fives immediatis fives mediatis de inferiore specie, ficit exclusit a suo conceptu differentiam Generis oppositam, sic etiam a conceptu speciei de qua predicatur eandem exclusit: quare bene arguitur lapis est corpus, ergo omnem conceptum spiritus excludit: Lapis est inanimatus, ergo omnem conceptum animati excludit: at vero, hoc falsum erit; Lapis est substantia, ergo omnem conceptum Accidens excludit; est enim conceptus accidentis non minus essentialis lapidi, quam substantiae; saltem secundum opinionem hodie communis
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negantem Formas Substantiales Materiales. Cum igitur lapis nequeat
dici proprie, vel substantia, vel accidentis; consequentia videtur, ut alia
ratio Generica stabilior in serie praedicamentali, quae de his Notionibus
proprie predicari posset. Eodem relict eorum sententia, qui substantiam
dividunt in incompletam et completam; sed minus proprie meo judicio lo-
quuntur, secundum strictae leges praedicamentales.

De divinione notionis Concreti (qua voce ego utar in sequentibus pro
substantia) videtur eodem modo philosophandum quo de Ente; vel dichoto-
micarice, sic; in imperfectus et perfectius. Imperfectius continet Concreta
vulgo Substantias Corporea, et Spiritus a corpore separatos: perfectius,
Hominem, id est, concretum compositum ex his incompletis; propter quam
rationem et alias hae non nominandas, videtur mihi revera Hominem esse
omnium creaturarum perfectissimum. Vel secundo, trichotomice sic, in
corporeum, spirituale, et compositum. Hic Notandum ulterius de Notione
Hominis, quod male collocetur in linea praedicamentali sub Genere mediato
animal, et consequenter sub Genere Substantiae corporea; si enim hae fit
vera predication, homo est substantia corporea; sequetur a conceptu hominis
removendum omnem conceptum spiritus.

Concreta Materialia divido in Mathematica, Physica, et Artefacta. Mi-
ratus sum semper has notiones Mathematicas, quas ego hic pro Concretis
posui, a philosophis haber intendentia: Quis enim non clare percipit has
voce, punctum, linea, superficies, &c. esse Concreta, cum significent subjectum
et formam? Quare haec propitio linea est longitudo, est vel identica, vel
falsa.

Notandum de his Notionibus, quod Nomina Rerum corporearum Quant-
titatem vel figuram essentialisiter dicentium, hinc deumenda esse: sic, scintilla,
arena, pulvis, gutta; mammas, mammas, mamnom mamnem, &c. id est,
punctum ignis, lapidis, &c. Sic linea ignis, ligni, vel cujusvis materiae, ubi
longitudo praecipue innuitur: sic folium Chartae, lamina, braeque, ad super-
ficiem referuntur.

In concretis Physicis Methodum receptam sequutus sum, Corpora omnia
simplicia sub uno genere comprehendi; nec judicabam necessarium addere
itam vocem Genericam Elementi, cum statis exprimis posset hae Notio
neim grępom. partes Coeli posui volummodo tres; nec judicabam neces-
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farium pro constellationibus omnibus (quae Artis vocabula sunt) ponere voces Radicales; notio enim Constellationis fatis commode exprimitur, asind, stellarum aggregatum. Nomina vero particularium Constellationum, imponi debent ex his, per descriptionem a forma, numero, situatione, aut alio accidente maxime distinguente: e. g. asind vai, plectades, &c. quod faciendum Astronomis commendo; ficut et in alis Artibus, terminorum Artis Nomina, ab Artium peritis imponenda relinquo. Vix enim expectandum est ab uno aliquo homine, ut fit par huic sascepto imponendi apta Nomina terminis Artium omnium, quod faciendum est per descriptionem ex primitvis defumtas; idque quantum cum claritate fieri potest, in una voce, per derivationem, vel compositionem: ubi vero natura rerum hoc non patitur, per peripheras plurium vocum.

An detur elementum ignis non disputo, sed vulgarem opinionem habeo in re sequor; ut etiam, finitnne istae partes quas ego posui, stricte loquendo fac dicenda, et inter se distinctae. Novi fatis fi detur elementum ignis, ibi nec fumum, nec fuliginem, nec cineres esse: Attamen nemo est qui non videt, has notiones dicere essentialem respectum ad ignem hic apud nos. Sic nolo asserere has partes esse stricte loquendo distinctas; novi enim fumum et fuliginem differre tantum ut eadem ree rarefacta et densifacta: vel, si quis non ferat me sic loqui, fumus nihil est aliud nisi punctula (hie enim magis Philosphicae dicuntur quam Atoma) materiae combustibilis, per intemum calorem resoluta et dissipata; fuligo vero, est collectio horum parvorum punctularum in locum minorem. Sed rationem reddidi superior, cur omnes Notiones vero compositas non hic pro talibus habeam; et si de methodo et loco praedicamentali cujusque particularis Notiones curisque dixisse, disputaremus, disputaremus in aeternum; quare iterum dico hic multum Arbitrii necessario esse admittendum. Omnibus igitur consideratis, non vereor asserere, recte et accommodate fatis ad propositorum meum, has notiones positas esse ut partes ignis; quod etiam intelligendum volo in aliis partibus harum Tabularum, ad quarem particula rem explicationem, memor polliciti, jam non defendam; sed explicationem Concretorum Physicorum his paucis Notandis absolvam.

Primo, In re Herbaria fecutus fum Senertum, in Arboribus Spigelium, in brutis Jonstonum. Secundo, Non omnes differentias et Convenientes
concretorum phyficorum quae apud hos Autores inveniuntur, sed praeceptas tantum selegi: Quam inconveniens suiffet hos Autores in omnibus sequi; nemo doctus non videbit, cui scripta horum Autorum nota sunt, et qui naturam suscepi mei fatis apprehendit. Tertio, Una et eadem res per variam compositionem potest multis appellari Nominibus: sic *Elephas*, *N*<sub>3</sub> *hecias*, vel *N*<sub>4</sub> *sofpr*<sub>4</sub>*<sub>F</sub>. Quarto, Quaedam species vix possunt unica voce fatis significanter exprimi, quo cauf addendae sunt plures voces; quod etiam videri licet in omnibus linguis, precipue in numerose *plantarum* familia. Quinto, Licet aliquando contingat, quaefdam Rerum Species infimas non posse fatis significanter Nomina habere a notione Generica, et superaddita Differentia, una, vel pluribus ex aliis radicibus, fine longa periphrasi; tamen magis est philosophicum, et meo instituto congruum (cum hi cauis omnino rari sunt, rarissimi vero [quod praecepse attendendum est] in Notionibus communioribus et vulgaribus usus) vel longa periphrasi uti, vel etiam differentiam mere fietam superaddere Notioni Generice, quod plus memoriae opitulatur, quam si omnes infimae species fieren primitiae, et ordine numerico disponerentur; nihil enim magis onerat memoriam, quam ordo numericus. Quinto, Si cui forte magis placeret definitiones Specierum *Natura* et *Arte* conficere ex Genere, et Loco numero pro differentia posito, quam per differentiam petitam ex aliis radicalibus, et Generi superadditam; potest hoc fieri fine minima variatione harum Tabularum, ni. addendo literas terminales voci genericae ordinis numerici significativas, 

\[
\begin{align*}
N<sub>3</sub>ka & \quad 1. \text{Elephas}. \\
N<sub>4</sub>kn & \quad 2. \text{Equus}. \\
N<sub>5</sub>ke & \quad 3. \text{Asinus}. \\
N<sub>6</sub>k0 & \quad 4. \text{Mulus}. 
\end{align*}
\]

Sexto, Nil refert, quod quaedam Genera aliquando coincident in quibusdam eorum species; necessarium enim duxi convenientias Rerum maxime communes feligere, licet aliquando coinciderent in aliquibus.

Concreta Artefaqua quod attinet, nemo Philosophus (quod sciam) ante me tentavit reducere ad predicamentum; multo minus ferunt Philosophi
ea Substantias (hoc est entia concreta) vocari. Cum Notiones Artis non minus numerofo sint quam Notiones Nature, ideo decreri, non prosequi minutiores Differentias, sed quasdam Notiones Genericas diffonere, ex quibus Nomina Inferiorum Specierum, vel per derivationem, compositionem, vel periphrasii exprimi possint. Via admodum intrita fuit in ordinandis Genericos Notionibus Artefactorum: Nihil tamen dubito, quin Notiones Genericae quas hic pofui, fatis sint, clare, et obviæ, et inter se distinctæ, ut etiam comprehensivæ sub se omnium Notionum Artefactorum. In his explicandis non morabor, sed duabus factis observationibus ad alia tranfibio.

Sicut in Concretis Phyficos Nomina infimarum Specierum sint per compositionem ex Notionibus Radicalibus; sic etiam, hoc idem fit in Artefactis cum eadem prorsus fit ratio utroboque. Quare fiant Nomina elephantis, equi, muli, asini, fiant ex hoc genere Radcali nsk, et differentiis ex aliis Radicalis acfitis, sic nskbeisap, nskpot, nsksofpad, nskpim; sic eodem modo, poculum, cochlear, matula, &c. fiant ex Generico notione fren, et differentiis superaditis: frenprof, frenneas, frenirem, &c. Sic, palatium, carcer, templum, officina, tugurium, cubiculum; fankan, fancoog, fanskas, vel fansava, vel fanska; fanspad, fansret, fansrom; sic, pileus, chiroteca, thora, calceus, braeco, caligæ; freimmeis, freimasus, freimeis, freimees, freimasu, freimsmor, freimsmers, &c. uno verbo. Nulla est Notio Radcalis in Tabulis Primitivorum Concretorum, five Mathem. five Phyfic. five Artef. ex qua, tanquam Genere, et aliis aliunde acfitis differentiis, non fiant quamplurimæ inferiores Species. Et quidem modi hujus imponendi Nomina Rebus, vestigia quædam inveniuntur in omnibus Linguis; neceffitate et Natura ipfa hoc distant, ne fiat progressus in infinitum. Sed Nature hac in Re, hic Arte magis excolenda eft.

Secundo, Tenendum in Rerum Nominibus componendis, non esse neceffarium ut differentia Generi superaddita fit tota rei Forma, quam docent philosophi esse unum aliquid simplex, occultum (ipfis nesciunt quid) latitans invissibiliter (et etiam ininteligibiliter) in Rebus; ad quam inveniendam nullum acumen penetrare potest. Verum hoc est commentum abfurdam; omnium enim Rerum quarcumunque forma sunt inadæquate cognitæ; nam quicquid cognoscimus de Re aliqua est pars ejus forma: dico est pars
Formæ; Formæ enim nihil est aliud quam aggregatum omnium accidentium alicujus Rei. Sunt etiam formæ omnes inadæquate nobis cognitæ, nam multa sunt accidentia, qualitates, potentiae, respectus, &c. in Rebus (etiam ipsis quam Naturæ sunt nobis maxime notæ) quæ a nobis non intelliguntur. Satis igitur est, si differentia superaddita Generi, sit tale Accidentis, quod distinguat Speciem ab omnibus aliis. Atque hæc dicta sunt de Concretis; sequuntur accidentia.

Tenendum in Genere de Notionibus Accidentalibus, quod methodus harum maxime naturalis sit eadem omnino quam concretorum; ni Primo, Accidentia Concretorum in genere; Secundo, Mathemat. Tertio, Phylic. &c. ut patet ex comparatione Tabularum Concretorum, & Accidentium.


Inter hæ primum locum de causis Rerum; ad quem licet plures reducam hæ Notiones quam vulgo solent alii, non tamen quam rerum Natura postulabat. Secundum locum dedi modis existendi; quæ Notio valde communis et frequens est, significat enim statum, seu conditionem rei. Tertium dedi Modis agendi; quæ Notio diversissima est a priori, quamvis Logici has confundant; nec quidem ulla accuratam distinctiónem faciunt inter Accidentia, qualitates, et Modus. Sed cum singula prosequi non vacet, de gradibus comparationis quos posui sexto loco, paucus notabo.

Notiones hæ sunt maximi et frequentissimi usus; est enim ACTUS Mentis comparativus longe excellenterimus in Rerum Scientia acquirenda: vix proferri potest fententiæ in qua Argumenta Comparata vel Caufæ locum non habeant. Et tamen in nulla parte Logicae magis cæciuntur Logici, quam in Doctrina Comparatorum. Etiam ipsæ Petrus Ramus, me Judicæ, Logicoeum Scriptorum acutissimus, hic in tenebris verстат est; nam inter Argumenta Comparata explicasse debuit magnum et parvum, et maximum et minimum, non minus quam majora et minora: licet enim hi gradus distinctiónis caufiæ, a Grammaticis dicantur positivi et superlativi, non, tamen
minus proprie sunt Comparativi, quam majora et minora. Deinde, non
sunt hæ Comparisones in folæ quantitate, ut ille opinatur; sed hæ notæ
comparationis transcendent et quantitatem et qualitatem, et utrique sunt
æque applicabiles. Verum cum voces majora et minora, in usu vulgari
appropriatæ sunt folummodo Rebus quantis, ut veram naturam compara-
torum intelligamus, necesse est abstrahamus a vulgaribus vocibus, ne vocum
ambiguitate decipiamur: quare argumenta Comparata explicatu per voces
Adverbiales, quibus secundum usuem vulgarem, et recte, utimur indiffer-
enter pro comparatis, tam in qualitate, quam quantitate. Notæ comparationis
principaliores sunt hæ; magis, æque, minus; ex quibus orintur, valde, mediocriter, parum, et maxime, minime: fies dicimus, magis longum,
et magis album; ægue longa, et æque alba. Verum cum has Notiones
Nominaliter et adjetive exprimimus, utimur diversis vocibus, pro com-
paratione in quantitate et qualitate; et dicimus, magnus ignis, intensus calor;
major ignis, et intensior calor.

Dico, licet strictè loquendo, omnes gradus comparationis possunt reduci
ad magis, minus, et æque; tamen certeri gradus, cum innuant diversitatem
graduum, et modi comparandi res, ratio postulat ea in distinta Argumenta
Logica Comparata distinguere. Et contra vero, male docetur æqualia,
inæqualia; similia, dissimilia; paria, imparia, esse distincta Argumenta
Logica, cum in gradibus Comparisonis, et Aet Comparativo, ne minima
fit diversitas, sed in folis subjicitis; ut patet ex resolutione harum pro-
positionum; parietes sunt similes; id est, æque albi; hæ duæ lineæ sunt
æquales; id est, æque longæ; hi numeri sunt parés; id est, æque multi, seu
quantæ; in quibus apparat idem omnino esse Logicum Argumentum.

De Accidentibus Mathematicis, quorum B est Characteristicum: Note-
tur 1. Propositiones quæ cum verbis motus junguntur, hinc petendæ sunt;
quæ voculæ (sicut omnes aliae particulae) admodum sunt ambigue, et in-
certæ significations in linguæ. Hujusmodi sunt, per, propter, trans, supra,
infra, ad, ab, ex, in, &c. quorum significatio hinc determinanda est. 2.
Pofuit sex principales differentias situs, sub terminis relativis, quæ ad
Mundum applicatae, significant Oriens, Occidens, Septentrion, Auster, Zenith,
nadir: ad hominem relatae, vel brumum, vel Arctæctum, significant ante, post,
destra, sinistra, supra, infra.
Sub Genere D posui illas Notiones quae solent a Physicis, in parte Physicæ generali tractari; de quibus hic nihil singulare notabo, nisi quod numerum harum multum auxerim (propter majorem facilitatem Communicationis) supra quem invenerim in Philosophorum scriptis.

Sub G complexum sum Notiones Physicas magis speciales, id est, qualitates sensibles; quas distribuim secundum ordinem sensuum, progrependo ab imperfectionibus ad perfectiones. Deque his notetur. 1. Desiderari in Linguis vernaculis vocem Genericam ad significandum objectum tactus; cum tamen ratio postulet ut objectum Tactus una voce significetur, non minus quam color, sonus, odor, sapor. 2. Tanta est affinitas sensuum gustus et olfactus, ut vix censeam illos dicendo distinctos sensus: nec minori cum ratione, (meo judicio) secundum opinionem Scaligeri, appetitus venereus distinguui potest a sensu tactus. 3. Cum duplex sit objectum generale visus, ego posui colorum ut principale objectum, et lucem ut speciem sub eo; non ignorem tamen multos Philosophos afferere, Colorum esse potius speciem lucis.

De Genere P Not. 1. Quod hic non expresseim potentias senitivas externas [hic] quia satis commode formantur ab organis sensus, quæ Radicæa sunt inter membra corporis. 2. Differentiae Genericae in Tabulis posita, stricte et proprie loquendo tales non sunt; nec tales (aufim afferere) possibiles est invenire in instituto meo applicabiles; quare docendi causa solum, passiones ita distinguuntur, in principales, minus principales, et affines, &c. 3. Me pleniorum Passionum enumerationem fecisse, quam inveniri potest apud quemvis Philosophum qui materiam hanc tractavit; et tamen principias tantum enumeravi: numerus enim passionum in variis hominibus est infinitus; nemo est qui non habeat in se quasdam passiones, quæ in nullo alio inveniuntur. 4. Omnes virtutes hinc præcipue petendæ sunt; cum virtus nihil fit aliud, quam debita moderatio animi motuum, vitium vero, defectus vel excessus eorundem.

Atque hic filum Explicationis rumpam; multa confutto tacens, partim quod sciam Homines doctos, et hujus operis dignos cenores, ex paucis quæ haec est dicta sunt, rationem Methodi in frequentibus fatis apprehenfuros, partim etiam propter alias causas.
DE INSTITUTIONE VERBORUM, SEU SIGNORUM APPLICATIONE
AD TABULAS.

Qui in praxi hujus Artis versari velit, diligenter attendat Regulas hoc capite traditas.

1. Ordo literarum, ut capite primo docetur, perfecte tenendus et præ oculis ponendus est.

2. Conatus eram omni studio, tot Summa Genera Rerum constituere quot foni simplices sunt, idque metodo correspondenti inter Signum et Signatum; verum multa erant quæ huic conatus obstabant. Quantum tamen potui, convenientiam Symbolicam inter Signum et Signatum, etiam in prima signorum impostione observavi; ut consideranti patebit.

3. Summa Genera Rerum Septem primis literis notantur, id est, vocabulis; quibus subjungitur litera v, distinctionis causa, et ut voces flexionis sint capaces: v enim precedens, semper est nota dictionis numericae; ipsum tamen v nullum numerum significat, sed tantummodo distinguat voces numericas ab aliis vocibus; nam ab est basis, sed vab significat 14.

4. Literæ ei et i, in vocibus Genericos, sunt tantummodo serviles et Explicieve, ad faciendum integram vocem; nam in fummis Generibus Concretorium et Accidentium, Litera Characteristica est unica: sic, M est concretum Mathematicum; N Concretum physicum; S Accidentem Commune: quare his addendæ sunt Literæ in hoc cafu serviles eis, sic Meis, Neis, Seis. In Generibus vero Intermediis Accidentium, quorum due sunt literæ Characteristicæ, folæ S acificetur in fine; ut gos, color, gis, sonus, &c. Sic etiam in Notionibus Genericos partium corporis; ubi Nomina Specierum formantur additione vocalium ante literam Genericam, et additur ad vocem Genericam faciendum; ut eim, ein, &c. Cum vero species formantur sub fecutione vocalium, Species distinguientium, tunc Nomen Genericum formatur additione terminationis eis; ut meis, neis, feis, &c.
5. Summa Genera Concretorum tribus consonantibus nasalis in notatur; quibus addenda est terminatio eis, ut voces integrae sint, ut jam dictum.


9. Nomina Notionum incompletarum in Tabulis Concretorum, id est, Partium Rerum, sunt etiam voces incomplete et mutilae: id est, biliterales (duplicates enim literæ fr, ð, sm, sm, &c. habendæ sunt pro simplicibus, quæ loco simplicium literarum supponuntur, propter penuriam literarum simplicium) quæ quantum literarum distributio finebat, habent præcipuam Characteristicam Literam fui Integri seu Totius, cujus sunt partes: Sic partæ Figurae habent b, quæ est Character. Figurae; idem videtur in partibus Cæli, Ignis, &c. ad quorum species distinguendas s r l sunt Characteristicæ, quæ nullo alio cafu sunt Characteristicæ specierum. Sic Nomina partium Animalis (quod omnium corporum Naturalium est perfectissimum, ideoque plurimas habet partes) componuntur ex m, n, f, quæ Characteristicæ sunt Animalis, septem vocalibus distinguentibus species, nunc vocalibus præcedentibus, nunc subsequentibus. Verum tamen Notandum, quo Literarum distributio non finebat, ab uno confusione cum aliis vocibus, omnes partes sic notare, per Characteristicön Nominis fui Integri seu Totius, ut patet ex partibus Domus et Navis.
10. Literae r et l sunt Serviles in Tabulis Accidentium: r est signum oppositae Notionis, l medie inter duas extremas. Eundem habent ufm in Nominibus Partium, in Tabulis Concretorum; Verum in Nominibus Concretorum integrorum seu Completorum, hæ Literæ post f ponuntur, propter defunctum Literarum simplicium, et copiam differentiarum Rerum; ut etiam aliquando s additur in initio, propter eandem causam, tam in Tabulis Concretorum, quam Accidentium.

11. Regula oppositionis et Medii locum habet in folis Accidentibus, et Notionibus incompletis inter Concreta; De quibus tenendum, Rationem Oppositionis non semper esse manifestam, sed ad modum oppositorum quædam dispotuntur, quæ stricte loquendo talia non sunt: partim ad sublevandum Memoriam; sed precipue, ut facilius comprehendi posse fut generibus, et vocibus aptis insigniri, secundum Analogiam et Regulas Generales hujus Artis.

12. Litera I potest, ubicunque Euphonia postulat, addi fini vocis desinentis in consonantem; cujus usus fice erit mere Euphonicus, nisi quod necessario adsumenda sit in plurali numero, quia eadem consonans nequit duplicari sine vocali sequenti. Sic etiam, s servilis praedit consonantem finalem, vocis Radicali advenientem per flexionem Grammaticam, cum natura vocis non postulat aliam vocalem significativam praecedere.


15. Cum quaelibet vox, ut ingreditur orationem, sit sub aliqua Grammaticali Flexione, hinc vox pure Radicalis est aliquo abstrahendum ab omni respectu Grammaticali: verum brevitatis causa, appropriavi vocem ex folis Radicalibus Literis constanter Notionibus Particularum significandis; quas omnes a Radicalibus Notionibus Tabularum derivari, Logicæ est Mysterialum in hac Arte Revelatum.
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16. Cum voces mutilae, (id est, Nominia Partium) incipientes a vocali, ingrediuntur Compositionem, ad modum differentiae (non Generis) adscif- cunt i servilem, distinctionis causa, ne fiat confusio cum aliis vocibus.

17. Accentum quod attinet in hac Lingua, tenendum breviter. In vocibus diffyllabis penultima est longa; in plurisyllabis est brevis, nisi longa fuerit positione duarum consonantium.


19. Vox primitiva pure Radicalis ex Tabulis Concretorum, significat ipsam notionem Concretam, Nominaliter, in casu recto; eadem ex Tabulis Accidentium, significat Notionem Particulæ, ut dictum.

20. In Compositione vox Generica præcedere debet, differentialis sequi; ut, Nkbeisam elephas, non Beisamwek, Smgyob adamas, non Gawosuy.

21. Ultimo, confuso ne diu hæreatur in Praeceptis et Regulis contemplandis, sed statim ad Praxim progrediatur; ex modica enim praxi, facilita admodum inventur, quæ primo intuitu et non exercitato difficilia videntur. Et quod est bene observandum, licet hic signa non ex mero Arbitrio, sed cum ratione Instituantur; adeoque Memoriam semel impressa, Intellectum erudiant de Rerum naturis; tamen in Committendo voces Radicales Memoræ (quod est primum faciendum in ordine ad praxin) parum, vel nihil attendenda est Rerum et Signorum Methodus in Tabulis; via enim datur multo compendiosior imprimendi Signa Memoræ, de qua paucra dicentur capite frequenti.
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CAP. VII.

DE SUBSIDIIS MNEMONICIS.

RERUM et Conceptuum nostrorum Signa dupliciter in Memoria reponimus et conservavimus. Primo frequenti repetitione inculcando; ita ut Signum auditum vel visum, frequenti usque, videatur Res ipsa, licet ab ea diversissimum: Tantum facit, valet usque. Et quidem sola hae actuum repetitorum frequentia efficere potest ut memoria extempore suo officio fungatur, fine Intellectus ducetu, quae res memorandae Methodice disponantur, quae omni Methodo sint solutae. Nec facilis acquiritur facilitas et habitus memorandique certum aliquem numerum Rerum maxime Methodice dispositarum (hoc est, ita ut earum quaelibet separatim statim designari possit, fine mentis discursu) quam par numerus Rerum non coherentium reponi potest in Memoria; Et Ratio hujus est, quod Memoria (si liceat Animi Facultates distinguere) sit Facultas omnino Passiva et receptiva Idearum, ab aliis animi Potentiis fidei conferriorata, et ad eam nihil spectat, (cum omnino cecis sit, et omnis cognitionis et judicii express) quo pacto res ad ipsam deferantur, Arte, an Sorte, quocunque caufa, vel Confilio; illa agit conservando et retinendo secundum suas vires naturales. Et quidem si propriu loqui velimus, in Memoria Artificiali, siue id fiat in Rerum Serie Legitima et naturali, tunc per factam mentis connexionem, Memoria hic nihil praestat Artificiale supra suas vires naturales. Sed totum hoc est Rationis opus, educentis ex Memoria Signa vel Res, in ipsa olim receptas et depositas.

2. Ratio humana, quae Scientiae Compendio quantum potest naturaliter studet, Memoriam imbecilitati opulatur, operando connexionem Rei Ignoratae cum Re Nota, vel Rei Memorandae cum re Memorata: in hoc enim folio, tota Ars Memoriae sita est. Et quidem hic est naturalis effectus Rationis in homine; videmus enim spectissime in puero vel servo, si ipsis mandetur Nomen aliquod incognitum recordari, statim Ratio, quasi natu-
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rali infinitum, confugit ad compositionem hujus Rei Incognitae cum alia
Cognita affinis foni. Hae autem compositione dupliciter fit; vel 1. Ubi est
necessaria, et naturalis Rerum ipsarum connexio; vel 2. Fit per solam Men-
tis Fictionem. Cum compositione fit secundum Rerum ipsarum Naturas, vel
Generalem aliquam Regulam, eo firmior est et permanentior: Exempla
harum sunt omnes Compositiones et Derivationes in Lingua Rationali,
et etiam quae in aliis Linguis regulariter sunt. Sic, cum quis didicit
primam conjugationem, ex verbo amo; postea si audiat hanc vocem vigi-
labunt, ejus significacionem atque intelliget (modo quid significet vigilo
prius intelligat) quamvis hanc vocem, vigilabunt, nunquam ante audiverit. Ratio
est, quia intelliget per partes, 1. quid significet vigilum: 2. Quid terminatio
bunt; quare etiam partes regulariter compositas, intelligit. Exempla com-
positionis Fictae sunt voces Radicales sequentis Lexici, quae longe facilius
in Memoria reponuntur, per fisam hanc connexionem, quam per discursum
Logicum; etiam si supponeretur Methodum hanc Notionum in Logico
et Naturalem esse, ut Ratio non minus facile posset eas percurrere, quam
Literas Alphabeticas recitare. Hoc sic videbitur multis valde absurbum;
et tamen experientia certiffimum, et Ratio etiam evidens est hae; Dis-
cursus Logicus, est via multo longior ad inveniendum Signum, quam con-
nexio haec fisam; dum enim ego ex discursu logico, quae siturus sum vocem
hujus Linguae pro animositate, necesse est Ratio formet omnes hos dis-
tinctos Aetas; et Accidentem; et accidentem physicum, sensitivum, cujus P
est Characterist. 2. Est sub genere intermedio quintum, et est species septi-
tima sub hoc Genere. Quare licet Methodus effet ita perspicua, ut ratio
fine errore posset omnis haec percurrere, tamen haec effet maxima tortura
Mentis, tam longum discursum formare pro singulis vocibus. At vero, in
fisa compositione, unicus tantum est aetas Mentis ad inveniendum fi-
num: sic, c, g, pop aestimatio; ego finxi connexionem inter papam et aesti-
motionem: Cum igitur audio hanc vocem aestimatio, statim, etiam fine ullo
discursu, recordor popes: Vel si audivero popes, vicissim statim recordor aesti-
motiones. Et quidem, ficit parvo labore possunt voces Radicales memoriae
mandari per hanc Artem, ficit parvo admodum exercitio, possunt homines
fatis expedite communicare, ex vocibus hae ratione in Memoria repotitis.
Fateor, ad recordandum voces extempore, fine ullo Rationis et judiciei ex-
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ercitio, habitum requirit; ad quem gignendum in Memoria, nec Ratio vera, nec fiēs multum conducunt, sed sola repetitio frequens, ut supra.

Qui igitur recordatur per hanc fiēsam connexionem (quae durum Rerum tantummodo est) fine ullo respectu ad res alias, comparari potest ei qui quærēns duos amicos, reperit eos fosos in Domo aliqua Ampla: Qui vero recordatur per discursum Logicum, pertransiendo longam Seriem et Catenam Notionum, illi, qui quaerit duos amicos in Templo inter mille alios homines. Vel possunt hi comparari duobus hominibus a Palatio Regio Londini, vicum Lambeth ex adverso petituris; alter Fluvium Tamefin cymba recta traiectit, alter circuitum facit per pontem. Quare confulo ei qui voces Radicales Memoriae committere velit, ut profus neglīgat Methodum Philosophicam Tabularum, et hac sola Fiēs Connexione, utpote multo compendiose utatur. Hic ponam exemplum 60 Vocum Radicaleum, ex quibus judicari potest de cæteris.

| France, table. | Puf, observare. |
| Flanders, aratum. | Padden, attendere. |
| Pomum, admiratio. | Pater, concipere. |
| Adam, succus. | Grumble, nutrire. |
| Edmundus, cortex. | Framea, filum. |
| Ugly, arista. | Fabula, organum. |
| Pot, animositas. | Sibylla, verum. |
| Fanum, domus. | Coblen, proscribere. |
| Acceon, ostium. | Cogan, incarcerare. |
| Fens, pons. | Pipe, diligens. |
| Pope, aestimatio. | Pride, affabilitas. |
| Marble, circulus. | Podex, ira. |
| Samuel, efficiens. | Sand, materia. |
| Sin, pulchrum. | Bag, concavitas. |
| Bed, extra. | Poket, liberalis. |
| Before, ante. | Ass, stella. |
| Barbara, rectus. | Ise, mare. |
| Gomorrha, lux. | Flamma, panis. |
| Dod, solvere. | Toperie, hasta. |
| Dog, aperire. | Dok, spargere. |
| God, ruber. | Sno, vesica. |
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Foe, venter.
Ant, humor.
Dik, pungere.
Globus, flavus.
Tatle, meditatio.
Tom, litera.
Smal, manus.
Suggar, Commune.
Dig, percutere.

Sem, incipere.
Purgatorium, simulare.
Prin, ferus.
Beg, extremum.
Game, dulce.
Fringe, Cathedra.
Femina, theca.
Sidney, honestus.
Gabulum, durum.

Poterit quilibet ingeniosus, bis vel ter relegendo las voces, eas ita Memoriae committere, ut cogitatione factura de una, statim altera memoriae succurrat. Sic cum ego audio vocem sin, statim recordor pulchritudinis; et vice versa.

Quamobrem ex hac instantiae evidens fatis videtur, facili negotio posse omnes voces Radicales hujus Linguae, unius Septimane spatio, in Memoriae reponi; et si altera ad Praxin accidat, poterit structura orationis ex his fieri, et mutua Communicatio inter Homines, non minus quam in aliis Linguis: Et hoc est quod ab hominibus habitur fabulosum, et impossibile, ideoque incredibile.

CAP. VIII.

DE FLEXIONIBUS GRAMMATICIS.

Hactenus explicatio Lexici et vocum Radicalium; sequitur quaedam dicanmus de Flexionibus Grammaticis, in derivatione, Compositione, et Structura orationis.

Docent Grammatici octo esse partes orationis: Logici melius, duas tantum statuunt. Ego vero, secundum libertatem Philosphandi quam hic mihi arrogavi, unicam tantum Orationis partem, Primam, et proprie sic
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dictam agnosco; Nomen scil. Caeteras vero vulgo sic habitas, esse inter Flexiones, et Catus hujus, numerandas. Ratio afferentis hae est; omne Ens quodcumque necessario primo locum habet in linea pr従icali; omnis autem Notio pr従icalis est Nomen. Quare sequatur, Verbum esse tantum Catus, feu Flexionem Nomini, non minus quam aliae partes a Grammaticis enumeratiae.

Res hae extra contravermiam erit, si evincam a Logicis unicum istud verbum Substantivum (Sum) derivari a Nomine pr従icali: Quod conabor facere, 1. Negative, ostendendo sum non derivari ab Ente. 2. Positiva, ostendendo veram verbi Substantivi originem.

Dico primo, Verbum Substantivum, quod copula est in omni Propositione, non derivatur ab Ente (non nego possi derivari verbum ab Ente, non minus quam a Notioibus Substantiae, et Accidentis; verum hoc verbum longe alius est a verbo Substantivo) quod ex resolutione harum durarum Propositionum demonstro. 1. Homo est ens. 2. Homo est. Si quis admittat primam propositionem esse legitimam, et constanter tribus terminis distinctis, Subj ecto, Copula, et predicato (quae partes sunt essentiales omnis propositionis) habeo intentum. Si dicatur hanc propriam esse Tautolog. et vocem Ens redundare, et quod haec Homo est, significet totum quod Homo est Ens; Inf. vel haec nulla est Proposition, vel necessario est resolvenda in Tres Terminos Mentales, licet hic duabus vocibus expressos. Quare, haec duae voces vel non significat ad modum Propositionis, vel resolvenda est in duos terminos, copulam scil. et pr従ical. Et sic habeo quod volo; copulam propositionis esse aliquid distinctum a Notione Entis.

2. Positiva ostendo veram Verbi substantivi originem. Verbum, substantibus omnibus, nihil est alius, quam pars Formalis propositionis, id est, Signum A&us Mentis Judicativi. Cum vero Judicium dupliciter fertur de Obiecto, vel per assembem vel diffensum, (qui ad vocibus expressi dicuntur affirmatio et negatio) hinc sequitur duplex esse Verbum Substantivum, respondens duplici A&ui Mentis Judicativo; quae duo verba sunt catus Notionum affirmare, et negate, quae secundum leges pr従icalmentales primo concipienda sunt Nominaliter. Et bene hic tenendum est, Verbum (qua tale) esse merem copulam, et Signum A&us Judicativi; et Tempus esse quid extrinfecum ejus significazioni. Non male igitur supponi possunt
hae voces (ita) et (non) pro propriis Verbis Logicis, et Signis actuum Judiciatorum; quae voces, etiam secundum usum vulgarem loquendi, ponuntur verbaliter. Ut, an Petrus est in domo? R. ita, non. id est, Petrus est in domo, Petrus non est in domo: vel magis Logice, sic. Petrus ita in domo; Petrus non in domo. Nam observetur has voces non significare adverbialiter, eo modo quo doce, male, bene. Sic enim voces affirmative, negative, sunt adverbia notionum affirmare et negare. Sed significant Judicium copulativa: Et Ubiquevenque inveniuntur in oratione, significant ad modum copulae inter subjectum et prae dicatum, licet absurde ex vulgari usu, haec vox est cum iis jungatur in propositione. Imo in propositionibus negativis est implicatio in ipsis terminis, dum nota affirmandi cum nota negandi jungitur. Homo non est lapis; quasi homo non ita lapis: Saltam nota affirmationis est redundans. Duo igitur sunt verba, ita et non. Cunque Verbum Negativum non ingrediatur propositionem Affirmativum, est non minus absursum ut Verbum Affirmativum ingrediatur propositionem Negativam.

Ex dictis etiam patet, quam absurda sit eorum opinio, qui docent verbum Substantivum non esse necessarium ad faciendum propositionem: Pari enim ratione docere posse, Subjectum vel Praedicatum non esse necessarium; est enim pars Essentialis et maxime Principalis propositionis. Hoc quidem verum est, posse Copulam, comprehendens gratia includi in eadem voce cum Praedicato, vel et Praedicato et Subjecto: e.g., haec vox amamus, continet in se 4 distinctas Notiones; id est, nos, presenti tempori, sumus, (vel potius ita) amantes.

Infuper ex dictis infero, nullam esse Negationem in terminis simplicibus; omnis enim Negatio est Aetius Mentis, separans aliquid ab aliquo. Quare, maxima pars Doctrinae Logicae, quae tractat de equipollentia et conversione propositionum, et vana, inutilis, et absurda. Quis Bubulcus non docebit Logicum sic enuntiantem, Homo est non lapis, significantius dicere homo non est lapis? Nulla igitur est propositione terminis negativis constantis, cujus Negatio, per resolutionem Logicam, non reducatur ad Copulam.

Hoc igitur stabilito, quod unica tantum fit Pars orationis principalis; tot dici posseunt minus principales, quot Grammaticae Flexiones, et variationes; quorum numerus potest esse vel major, vel minor, prout quis fta-
tuat pluribus vel paucioribus Particulis Auxiliaribus, in structure Orationis uti. Hinc quaedam Linguæ, pro circumstantiis temporis, modorum, personarum, gradibus comparationis, utuntur vocibus distinctis et separatis; alia, has circumstantias terminationum varietate distinguunt. Quos autem diversos respectus et circumstantias ego hic admiserim terminationum varietate significari, ex Tabula Grammaticalium Flexionum patet; in quibus explicandis non insitam cum fatis notae sint ex exemplis.

Quod de numero Notionum Radicalum notavi, ni quod viam mediam inter duo extrema elegerim, hoc idem facio in Grammaticis Flexionibus; non enim toties vario vocem Terminationibus distinctis, ad diversos modos et circumstantias exprimendum, quoties compendii causa per Regulas certas potuissim; cum non sit necessarium sic facere, et memoriam valde oneraret, confusione praeterea pariens in Signis. Mīrūm est quot varias Terminationes non necessarias quaedam Linguæ admittant.

Nec 2. Ita stricte Logicas Regulas sequor, ut eadem rigiditas observetur in compositione et structure Orationis, quae in Analysi; hoc est, ut omnes distinctae partes distinctis vocibus exprimantur: Certum enim mihi videtur, omnem Grammaticam Flexionem distinctum aliquid superaddere Radicali Notioni; qui respectus distinctis et separatis vocibus exprimi possunt, nisi aliter fieret compendii causa. Quare ut dixi, media via incedo, præcipuas modales Variationes Terminationum varietate distinguens, alias vero vocibus separatis. Sicut igitur nulla vox Primitiva admittenda est in hac Linguæ nisi que in Tabulis habetur, sic nulla Derivativa, nisi que secundum has Grammaticas Flexiones fit. Non necessarium est moneam, non omnem Notionem Primitivam capacem esse omnium harum Flexionum. Hoc tamen observatu dignum est; hanc Linguam esse longe copiosiorem in Derivationibus et Compositionibus quam quælibet alia Linguæ; variabilitas enim in Notione est Regula variandi vocem; Cum Derivationes Linguarum vulgariarum coarctatur inter breves gyros Regularum Grammaticalium. Quarum nulla alia ratio reddi potest, nisi placitum et Arbitrium Majorum nostrorum; idque mero Caufa factum: Contra quem receptum ufum loquendi, fi quis loquatur secundum Regulas Logicae, Barbarus habebitur; Quales essent hujusmodi phraeses, ignisica, luminisica candelam; insignisica, inluminisica, pro extingue. Sic non licet dicere, tenebile,
ARS SIGNORUM.

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dabile, scribibile, ridax, legax, oculus, manulus, pedulius; Cum tamen hae notiones, et hujusmodi ferre infinitae, postulent eandem Flexionem cum aliis, quam Linguarum Analogia iis contra omnem Rationem denegat.

Notabilis est hac differentia (inter plurimas alias) inter hanc Linguam et vulgares: In vulgaribus, habent Regulas quas vocant Elegantiae, et ornatus, quæ sœpissime potius dicendæ sunt Absurditatis. Ita in malum omne fumus nos depravati homines proni, et in vetita ruimus; ut non solum pro maximis corporis nostri ornamentis habeamus, quæ corporis sanitati, et naturæ ipsi sœpissime adverfiantur, sed etiam Animas nostras, absurdis Figmentis, pro veris Scientiæ Dotibus corrumpimus. In hac lingua omnis Elegantia in hoc fita est, ut 27% externus fit interno perfecte conformis, ita, ut sermo fit Analyis Logicae Conceptuum nostrorum: Et nemo hic potest ornare et eleganter loqui, et orationem construere, nisi bonus Logicus, qui eandem in suas partes noverit resolvvere. Nec tamen hinc sequitur, neminem posse sena sua hac Lingua exprimere, nisi Logicae Artis peritus: potest enim quis Logicae (Artis) rudis sena sua hac lingua modo intelligibili patetacere; quod fatus manifestum est ex aliis Linguis. Potest enim Rusticus, sena sua exprimere de Rebus ipsi notis, ita ut ab aliis intelligatur: at vero Logicus plurimas absurditates in ejus sermones inveniet. Sed e contra, hoc bene sequitur; Ea que Logicae profert, facillia intellectual omnibus futura, ni. si materiam sermonis fit ipsis nota: Et hoc fatis etiam manifestum est ex Linguis vulgaribus, in quibus multo facilis est intelligere quam loqui; quod multo magis hic locum habet.

Hic infuper notari velim, quod Artis Logicae ignarus, dum hac Lingua utitur, aptus erit Phrasioligiam sua linguae sequi, quæ sœpissius absurda et insignificans est. Homines enim, priusquam praecipitis Logiciis imbuantur, loquuntur in multis more psittacorum: Formulas quasdam traditione acciperunt, quibus utendi libertate sublata, obmutefcent. Si enim inhibereetur Rusticus Anglus uti his phrasibus, he must be born with; put out the candle; mutis stabit. Ratio est, quod has phrases ex coniunctudine quadam addidit ad tales conceptus exprimendos, Logicam vero Analysis horum complexorum conceptuum perficere in mente nequit: Et quidem nonnulli sunt refectus Rerum, et concurius Notionum, quos Logicee expressere est perdifficile: Imo fastigium est acuminis Logici, possi bene
Animi fenfa hac Lingua exprimere. Quamobrem ad manuducendum Logice Artis ignaros in hanc linguam (id est, in veram praxin Logice) facienda est collectio quarundam Formularum ex Linguis vulgaribus, quae Logice revolvenda sunt per voces hujus Linguæ.

Hic etiam notatu dignum est, bene admitti possit variandi Formulas ad eandem Rem exprimendam in hac Lingua, non minus quam in aliis; sic ut enim 4. et 4. vel 5. et 3. vel 2. et 6. faciant octo, sic ex diversis simplicibus Notionibus poteb intemidicis fieri.

Compositio in hac Lingua est duarum vel plurium dictiorum in unam coalitio, majoris compendii causa in conceptibus nostris patefaciendis et communicandis. Atque hoc fieri potest pro re nata, quodlibet cum quolibet componendo; modo termini simplices eodem modo significent in Compositione quo extra compositionem. Cum enim rerum habitudines et Respectus mutui et Differentiae ita infinite varient, nec ad hae fingula significanda dari potest vox simplex primitiva; et omnes Animi conceptus ex paucis primis vocibus fine ullas variatione exprimere impossibile estet fine longissimis periphrasibus; ideo compendii causa necessario admitendae sunt Derivationes et Compositiones. Et hic tenendum est, illas Notiones quas Derivative appellamus, si stricto loqui velimus, esse revera compositas; distinctae tamen facimus, quod illae per additionem mutiæ Terminatiois, vel etiam Præpositionis, tant; ha vero ex integris vocibus separatim significantibus. *Filius* enim est vox composita, ex *filius* et *parvus*; *durius* ex *duro* et *magis*, logice loquendo: appellatur tamen hae voces Dervative, quia alter terminus compositionis mutiæ terminatiois exprimitur.

Hinc est quod eo perfectior habeatur Lingua aliqua, quanto capaciores sint ejus voces Derivationis et Compositionis; ideoque Lingua Graeca præ omnibus nobis notis praefertur, propter verborum copiam ex Derivatione et Compositione, eaque est sola Lingua quam adhuc habuerunt Philosophi idoneam ad Artes docendas: quod unicum Argumentum (fepostta fide Historica) Graecos Gentem doctam et Philosophiae primos cultores arguit. Et hodie observare licet, Gentes cultiores Compositionis et Derivationis Artem indies augere in suis Linguis vernaculis; sic Angli *self-denial, fellow-feeling*, et infinita fere familia quotidie exegitantur. Concluso igitur,
ARS SIGNORUM.

licere in hac Lingua quodlibet cum quolibet componere, modo significanter et ad rem fiat; securi absurditas committitur.

Not. denique, Compositionem quod attinet; quasdam esse Notiones communes, quae sepiissime Compositionem ingredientes in multis Linguis, per modum mutilarum Particularum, vocibus cum quibus composuntur, preponuntur, et ideo verius dicendae sunt derivative quam Compositae: hujusmodi sunt Latine, re, con, am, se, in, ad, ab, &c. quae in hac Lingua Leges Compositionis servant; hoc est, tota vox simplex Compositionem ingreditur.

CAP. IX.

DE SYNTAXI.

Structura orationis illi qui suos conceptus resolvere potest, facilis admodum est; pro qua hac Regula generalis teneatur. Idem sit ordo Signorum et Orationis, qui Mentis Conceptum seu Actum Rationis. Mirum est, quanta fit transpositio vocum de suis locis propriis et naturalibus per hysteron-proteron in quibusdam Linguis, præcipue Latina; adeo ut sepiissime eveniat, hominem omnia verba singulatim fumpta fatis intelligentem, femfum tamen integre orationis, fine longo difcursu capere non possit. Cui rei procul dubio occasionem præcipue dedit Numerus, qui ab Oratoribus in oratione Soluta observatur, non minus quam in Ligata, quique ad Regulas Artis forte reduci poterit, non minus quam Poeticus. Verum in hac Lingua non est ferendum, ut aures demulceantur cum animi jactura, quod raro admodum aliter fit, præcipue a Poetis et Fictionum Amatoriarum Scriptoribus, cui generi hominum, qui nihil aliquid quam fpumam turbidæ Mentis ebullire solent, fator me parum favere: Censet enim hos Peftes Reipublicae perniciosissimas; nam Mentes teneras Juvenum, honestis Artium praeciptis et Virtutis praxi jam imbuedas, vitiant et polluunt. Utcunque, aliquid remedium hic inventum est ad numerorum concentum
ARS SIGNORUM.

harmonicum suppleendum, absque orationis stræture Logiceæ perturbatione; ni. interpositio fervilis literæ s quoties Euphonia postulat.

Regulae particulares sunt. Primo, Substantivum praecedat Adjectivum; sic, sif goma, charta alba, sif groma, atramentum nigrum.

2. Agens praecedat verbum activum, patiens sequatur; ut similli ponesi Sava, omnes amant Deum; Sava ponesi lalli sunilli, Deus amat nos omnes.

3. Adverbium sequitur verbum; ut, lat trim sef trineso simai, ego non possum scribere bene; lelil spadesi pipai, ille laborat diligenter.

4. Modus ille loquendi qui Latinis, Ablativo absolute positi dicitur, qui Grecis in Genitivo cafu ponuntur, Angli vero Constructions hanc per voces, having, being, exprimunt, ext loquendi compendium quod in integrum propositionem revolvit poterit; verum propter frequentem etiam admittendum est hoc compendium: Cumque hæc Constructions semper fere revolvatur in Tempus, per voces cum, dum, post, &c. ideo particula temporis erit hujus phrasis significativa; ut, dan lolir tino, lel sofnesa swhmddan; sub dan lel slemesa tineso, his diitès, sindit aliquandiu; postea vero progressus est loqui, seu continuavit sermonem: dan lolir samo lelil, soflesesa spadeso, hoc facto cessavit ab opere, vel operando: dan lat trim sef trineso, lelil breddresesa, me scribente ille ingressus est. Notiones Temporis, ut Philosophis difficiles intelligunt, sic Grammaticis expressi. Hæc constructions Anglice sipe dicit respectum ad causam, et tunc per particular causæ reddenda est; ut, My hand being weary I cannot write longer; id est, sas maw lala spgo, lat trim sef trineso danibai, vel sandan. Multis modis possunt hujusmodi phrasè variari, et omnes significare et Logice et Emphaticè.

5. Nomen Adjectivum et Genitivus casus, per strictam Analysis Logicae, eandem constitutum Notionem, seu Nominis Radicalis Flexionem, et ei superaddunt respectum pertinentie. Hoc clarius apparebit comparando phrasè diverbarum Linguarum; Lingua Hebraea exprimit Flexionem, seu cañum Adjectives (jam enim bene advertendum, quod omnes variationes Notionis Radicale, five verbaliter, adverbialiter, adjectivè, &c. fact vere Caus, seu Flexiones Nominis Radicale) maxime proprie sic diòtum, per Genitivum Causum, vel faltem per constructionem huic equivalentem; ut, homo albedinis, homo fortitudinis; qua phraSi etiam aliqando Angli utuntur; a man of might, a place of much Light. Sic vicissim quædam Linguæ Geni-
ARS SIGNORUM.

tivum caesum propriis thes dicatum a Grammaticis, adjectiue exprimitur; ut, Anglice, God’s house, John’s Father, William’s Son, my hand, his foot; sic Latinis; manus mea, pes tuus: Ubi pronomina que pro Nominibus Substantivis supponuntur, redduntur Adjectiva. In omnibus quibus, Flexio Adjectiva, seu Genitivus Causus, significat Relationem pertinentiae, possessio, seu habitionis; Verum ego has Grammaticationes ut distinctas admisit, majoris compendii et claritatis causa. Perdifficile quidem est Regulae certas prescribere, quando Flexio Adjectiva, quando vero genitiva fit utenda; nam ut dixi, in stricta Logica Analyti, sunt eadem omnino flexio feu respectus: Hoc tamen hic offero. Utimur Flexione Genitiva (quae exprimitur per particulum syf ad Radice pertinere) cum loquimur de duobus notionibus, ita, ut de una conceptus fiat in fratrum, vel quas abfutrum, separato, et distincto ab alia; ut, albedo huic paretis, Lux huic diei; manus Petri; Adjectiva vero, cum duas res concipimus in fratru Concreto, composito, et unito; ut paries albus, lux divina, membra humana.

6. Admitto Compendii causa distinctiorem personae, et rei, fieri per terminations in eadem voce cum Nomine Adjectivo, sicut etiam sit in multis aliis Linguis; ut, Sunnirri tim samo sam, vel, sod Sava, omnia facta sunt a Deo. Simalli sodesi simai, bont homines bene faciunt.

7. Construo Ablativi et Dativi causas, seu quod ideam est, particulae ab et ad sunt significative relationis motus, ni. a termino, et ad terminum; id est, actionis et passionis; ideo optimo jure derivanda sunt hae particulae a suis propriis Radicibus; ut, Fef lola trinosa fod lai, hic liber scriptus erat a me. Leilig prodesa sod fansa, stofidatu, ille venit a templo, foro. Sava sprbesi simarri suna fhod lalii, Deus dat nobis omnia bona.

8. Verborum imperfionalem quedam redduntur per adjectivum Rei; qualia sunt haec: oportet, convenit, &c. Sic, Tim sedar suniili shpesa, oportet omnies homines mori. Hujiufmoti vero, pluit, coruscat, &c. sic reddenda sunt; nan nanesi, ignis coruscat; nen nemesi, ventus spirat; nen nenesi, phl sia phuit.

In, propositionibus constatibus duobus Nominibus, ubi nullus habetur explicitus respectus ad differentiam temporis (quod licet non observatum sepiifime evenit, ut in propositionibus vulgo dictis aeternae veritatis, magis proprie, necessarie connexionis) tunc Subjectum et prædicatum copulantur per duo verba substantiva tim et trim, pro ratione qualitatis propositionis.
ARS SIGNORUM.

affirmativa vel negativa; ut, Sava tim sima, Deus est bonus; Tuus tim
tuma, voluntas est libera; subtrin lola trim mf, hae penna non est lapis; Nam
trim nom, Caenum non est terra; leil trim pono sod nova, ille non est amatus
a Deo. Cum vero temporis differentia innuitur, reddenda est per flex-
ionem verbi temporis dan, sic; Petrus danesa bred fan, Petrus fuit in domo.
Verum, si addatur particula temporis differentiae significativa separatim,
reundared verbum temporis; ut, Petrus tim bred fan lola sobdangom, non,
Petrus danesa bred fan lola sobdangom, Petrus fuit in hac domo heri: Sic,
Petrus tim bred fan lola holdan vel dlandan, non, Petrus danesi bred fan lola
dlandan.

9. Tenendum, in omnibus propositionibus affirmativis, ubi est verbum
adjectivum (id est, conjugatam per flexiones temporis significativas) omitti
verbum substantivum, tim, compendii causa; in negativis vero semper ex-
primitur verbum tim.

Hic non addam plures Regulas de structura orationis; Logicoe enim
peritus fatigex ex paucis hic dictis, et capite sequente dicendis de par-
ticulis, quomodo connecter Notiones suas in aliis casibus: alii vero facile
acquirent Logicoe praxis, ex praehus Artis.

CAP. X.

DE PARTICULIS.

Divina forte magis quam Humana Arte dudus, felicissimo Auñicio, cla-

evus hujus Inventionis primo reperi, propter cujus defectum, viri Doñi,
qui ante me hujus Artis Fores sedulo pulslabant, nequiban intrare. Per

hanc Clavem intelligo Notiones vulgo Particulas vocatas, quae ita se ha-
bent ad Orationem ut anima ad hominem, vel Tendines Nervi et liga-

menta ad Corpus, vel Cæmentum ad Ædificium. Subduñis enim Par-
ticulis ex Oratione, quid remanet? Nifi mortuum Cadaver fine forma
hominis? Vel soluta membra fine forma corporis; vel cumulus lapidum
ARS SIGNORUM.

fine forma domus? Et fient Particulae Formae et Principalium partem Orationis constituentes, adeoque difficillimam (tota enim praxis Artis Logicae et Grammaticae in his recte utendis sita est) sic etiam partem orationis maximam faciunt. Quare, dico harum resolutionem et reductionem sub regulis Artis, Inventionis Clavem.

Memini flectum numerum virorum Doctissimorum in Academia Oxoniensi, quibus primo Inventionem hanc communicavi, dum viderent Schema totius Artis in unica pagella exhibuisse, Charactebus additis, brevitatem hanc incredibilem omnes mirabantur; praecepie illam partem quae Particulae complebatur. Ex his vir clariss. Sethus Ward T. D. et Astro-nomisae Professor in eadem Academia, postea mihi communicavit Tabulas Notionum Philosophicam, quas Artis hanc intendens ipse compoferat: et licet ad Particulae explicandas, et structuram orationis ex his nondum descenderat, probabile tamen admodum est, quod labores ejus temporis progressu, serius aut citius in publicam lucem Artem hanc producissent. Postea vero mihi nunciatum est de aliis propositis hae in re; circa enim idem tempus, prodit Liber Anglice, sub Nomine Characteis Universalis, qui reversi nihil aliud novi docebat, quam scribere vel loqui Anglice modo multo difficiliore quam vulgo fieri folet. Ingeniosius multo cogitata sua de hac Arte propoferat Franciscus Lodwick, Civis Londinensis; verum huic Suscepto impar, propterea quod Artis expers, et extra Scholae natus.

Primus igitur mens conatus in hac Arte longe alius erat a Methodo hic exhibita, praecepue in Particularum materia. Primo enim omnes Notiones Primitivas in duas Classes dividemus, Materiales scil. et Formales: Nomina et Verba et eorum causas partes materiales appellabamus, easque Charactebus Majusculis notabamus: Formales in Particulae, punctulis minutis circums Charactem Majusculum nominis vel verbi, designabamus; eodem modo quo folent in Arte Brachygraphiae, vocales per puncta notare circa Charactem consonantis. Et quidem hic modus maximum compendium scribendi docerat; sic enim in vulgaribus Literis, quilibet Character significatur partem vocis unius, forte quartam, quintam, sextam, &c. hic, minimum punctum significabat integrum Notionem; v.g. hanc sententiam ego amo illem valde bene, scribatur unico Charactere Majusculo pro verbo amo; caeterae particulae per puncta circum hunc Charactem affixa signi-
ficabantur. Sic hæc sententiae: *Sed quoniam nos sæpe molestamur ab illis, ideo nos quoque illos aliquando molestabimus.* Tota hæc sententia duobus Characteribus Majusculis scribendarum, cæteris vocibus per punctula circa Characterem affixa, expressis.

Verum positea, cum percipiebam multas notiones quibus pro particularibus et primitive uteram (jam enim collectionem feceram circiter fere 300 particularum) esse vel revera composites; quales sunt adverbia temporis, loci, conjunctiones caudales; ut, hic, illic, ubique, aliquando, quando, sæpe, quare, ideo, &c. Alias vero nihil esse alius quam adverbia modi, quales erant bene, male, facile, &c. Ideo Particularum numerum (quarum tot primo uterab, propter majus scribendi comendium) ex Analyfi Logica indies minuebam.

Tandem vero mihi assestit clarior lux; accuratius enim examinando omnium Notionum Analyfi Logica, percepit nullam esse Particulaque non derivetur a Nomine aliqve Predicamentali, et omnes Particulas esse vere Causas, seu Modos Notionum Nominalium. Jamque inter hæc duo hærebam, an scritionis comendium negligentem; an vero admitterem pro primitivis, quæ revera et Logice talia non erant; quod contra principalem hujus Artis scopum omnino erat. Quamobrem cum hæc duo conciliare nequibam, conclusi Logicam institutionem Nominum Rerum, utilitati Brachygraphicae longe anteponendam; sicque omnes Particulas ex ordine Radicalium misceam feci. Cumque jam respicio quot et quam varias Methodos et modos in hæc Arte pertransiverim, quorum omnia longum effet recensere, experientia propria testatur, verum esse quod vulgo dicitur, Nihil simul natum et perfectum, et prima Artium lineamenta esse admodum rudia.

Tenendum me sex particulas Pronominales retinuiisse, non necessitatis sed comendii causa, quia aliter fine longa periphrasi communicare non possimus; ponuntur enim hæ loco Nominum, ideoque Pronomina recte appellantur. Quod non sint absolute necessaria et primitiva, patet, quod quævis propofitio illis confons resolvi potest per Nomina ipsa pro quibus hæc supponuntur. Sic ego scribo; id est, *Georgius Dalgarnus* scribit: dum Petrum alloquor; tu scriptisti; id est, *Petrus* scripsit; dum Petrum alloquor de tertio aliqve, Johanne; ille scriptit; id est, *Johannes* scripsit.
ARS SIGNORUM.

Hic bene observandum est, præcipuum quod reddit Linguæ vulgares
difficiles, est maxima ambiguitas particularum, ut videre licet apud Au-
tores qui hoc subiectum tractarunt in variis Linguis: non enim sufficit ut
aliquis Linguæ vulgares intelligat, ut significacionem omnium vocabulorum
principalium separatim intelligat; Particulæ enim tam multiplices et in-
certæ sunt significacionis, ut nequeant Regulæ certæ dari ad eaurum signi-
ficationem determinandam, sed hoc ex solo usu et longa experientia est
colligendum.

Judicia virorum doctorum varie expertus sum de modo instituendi voces
ad particularum Notiones significandas: Quibusdam magis placebat modus
ille prior, quo certum numerum Particularum pro Primitivis constituebamus,
a Notionibus Nominum in Tabulis positis distingues. Ratio eorum erat;
Primo, quod cum Particulæ sint notiones frequentis usus, voces iis signifi-
candis imposite debent esse quantum fieri potest compendiose. Secundo
videbatur illis in quibusdam Particulis quee complexæ sunt significacionis,
ut vox longior, sic etiam obscurior: ut in vocibus, sunsum vel sunshun,
unufiquique; sfspsuf, vel shumshuf, fere. Hæ enim voces sunt diffillabæ,
nec tamen totum sœcum harum Notionum perfecte et plene exprimunt.
Alli contra mecum hic fentiebant, quod cum notiones omnes Particularum
sint ex natura Rei ipsius derivative et notionibus radicalibus Nominum
(quod contra opinantes negare nequibant) ideo consentaneum esse, ut ab iis
formetur, et omnino absurdam esse in Linguæ Philosophica, admittere
aliquam Notionem quæ non originaliter fit Nomen (vel satem pro Nòmine
positum) et capax omnium flexionum Grammaticalium; quamur hæc est una,
vocis scil. Radicalis mutatio, qua denotatur vocem talem non significare
partem aliquam materialem propositionis, sed formalem; id est, varios
modos quibus intellectus notiones jungit in textura orationis, et varias
rerum circumstantias fitus, positionis, temporis, loci, &c. Quare hæ
præcipue derivantur a notionibus transcendentibus et communioribus, et
accidentibus sub Genere Accidentis Mathematici contentis. Præterea
difficile est admodum determinare significacionem harum vocum fine
ambiguitate aliter: Imo omnino determinari nequeunt nisi ex notionibus
Nominalibus ad quas dicunt effentialem respectum; quare equissimum
est fitus quoad Rem derivantur ab illis, sic etiam quoad Signum. Nec
ARS SIGNORUM.

minori cum ratione derivantur, et, ab, ad, per, sine, &c. a radicalibus notionibus a quibus earum significatio determinatur, quam bene, male, docte, &c. a suis Primitivis.

Ad illud autem quod objicitur, voces esse longas nimis; Resp. Satis sunt breves quæ pro particulis primitivis supponuntur; secundum Regulam hujus Artis, Vox Tabula Accidentis in oratione posita sine aliqua terminali litera addita est Particula. Quod autem quaedam particulae sint propter compositionem longiores; quid hoc refert, quod aliquando sint difflablæ, trifflablæ, quadrifflablæ, modo satis distinguantur ab aliis vocibus? Sunt enim quaedam Particulae valde complexæ significationis, et cum capacitas Compositionis fit maxima excellentiæ in hac Lingua, ab urdu omnino effec denegare Compositionem vocibus significantibus Notiones maxime complexæ nature; quales sunt quaedam Particulae. Videmus enim in omnibus Linguis, Logicam Naturalem hoc dictæ hominibus, Complexis Notionibus Particularibus significandis, voces complexæ imposuïisse: ut quandocidem, nihilominus, unufquisque; Anglice, nevertheless, whosoever, &c. Quare hac abbreviatura vocum ad Brachygraphiam pertinet, nec est ejus consideratio admittenda in Lingua Philosophica, nisi secundario. Ad illud iterum, quod hæ voces aliquando non satis explicitæ dicant totam Notionem et conceptum Mentis; Resp. Fateor, aliquando sic est; non est enim expediens ad compendium et facilitatem communicationis, ut Notiones omnès nostras Simplices per rigorofam Analyfin Logicam longa paraphrasi femper explicemus. Sic vox unusquisque, significat distinctae omnes distributive cum respetè ad singulas partes unam; nimis autem effec laboriosum omnia hac exprimere, in omni oratione ubi vox unusquisque occurrit: Quare vocem ex radicalibus totius et partis, vel totius et unius componimus, et supponimus pro hac complexa Notione, quod multo magis est rationabile quam vocem ex simplici instituto supponere. Concludo igitur, sicut Notiones Particularum derivatur a Notionibus Prædicamentalibus, sic etiam debent earum voces: Quod autem sic deriventur, abunde patet ex ulteriorie earum resolutione. Unico exemplo in tabo, de Particulis tam et quam. Hæ penne est tam longa quam illa; id est, hæ duæ penneae comparatæ sunt æqualis longitudinis, vel æque longæ. Hæ penne est longior, vel magis longa quam illa; id est, Hæ penneae comparatæ, hæ est longior, feu magis longa.
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Ex his cenfeo abunde satisfactum esse iis qui resolutionem Logicam
orationis perficere possunt, omnem Particulam derivandum esse a Notione
Prædicamentali, et propterœ facile erit illis, intelligere et recordari voces
in frequentibus Tabulis, Particularum significationis: Rudiores vero quod
attinet, voces Particularum ex Tabulis addicatam, tanquam essent ex mero
instituto; idem enim signum potest esse respectu unius Rationale, respectu
alterius qui rationem institutionis non apprehendit, simpliciter, arbitrarium.

Particularum Doctrinam absolvam, resolvendo quaedam Particulas et Con-
struotiones difficiliores.

Totum Corpus, caput, terræ, &c. absurde, pro, totum seu totiætas, corporis,
capitis, terræ, &c. Non enim dicimus, partiale corpus, caput, &c. fed, pars
corporis, capitis, terræ; et eadem est construotionis ratio utroique; vel fi
alterum horum verborum reddendum est Adjective (nam supra docui Ge-
nitivam et Adjunctivam Flexionem esse eandem) non totum et pars, fed
corpus, caput, terræ, adjectives fierienda essent. Male fonarent hujusmodi
phrases Latine, melius Anglico; The bodies whole, the heads parts, &c.
Quare in hoc senfu collectivo, notio (totum) Substantive et absurde est ac-
cipienda; in senfu vero distributivo, hae notiones sunt reddendæ adjective,
uniæ sumæ, omnium homines; vel per adjective personæ; sic, sunani, omnes
homines; sunirri, omnes res. De particula unusquisque haœstæus. Aliquis,
nonnullos, particularis, sunt adjective partis vel unius. Uniæ, est adjective
entis. Vociœ haœ, quicunque, ubicunque, quandocunque, &c. significant rem,
perfonam, tempus, vel locum, &c. cum quodam Phæsi, que Latine ex-
primitur per terminationem cunque; que bene significari potest, per gemina-
tionem Particulæ relative bal his préxœ; bulluldan, bullulad, bullulii, bullulis,
&c. Quo poœt etiam fit nonunquant Latine; quotquot, quisquis, quoquoer-
sum, &c. Particula in est admodum ambiguæ significationis; numerant
Logici octo modos inesfendi (ut loquantur) quibus nonum bene annumerare
potuissent; ni. res in tempore. Verum unicus tantummodo est horum mo-
dorum, qui proprie dici potest modus inesfendi: id est, res in loco; ut Petrus
in domo, vinum in poculo. Proprie igitur dici potest lutum substantia in-
hæsionis, cum quis in eo immergitur: impropræ vero Anima respectu gratiæ,
vul paries respectu albedinis, substantia inhæsionis dicuntur: proprie tamen
fatis dicitur fægus in veste. Caetera phrases ut plurimum resolvuntur per


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Genitivum casum; sic, tohum et pars inter se comparata, partes sunt totius partes; non in toto. Nos sumus in tempore; id est, nos temporamus (si quis poterit notionem apprehendere ex hac barbaro voce). Rex est in Regno; id est, habet, possidet Regnum, regnat. Longam orationem postularet omnem particularum ambiguitatem discutere; sed cum hoc noverint docti ad quos jam scribo fine me preunte praestare, cumque etiam statis determinatae sint ex Tabulis, ideo hic amplius non expatriar.

Tenendum sub Nomine particularum contineri, Notiones vulgo a Grammaticis, Conjunctiones, Prapositiones, et Interjectiones appellatas, quae posteriores formantur ab Animi paffionibus, ut, pomp, nota Admirationis, prof, ecce, prob, hei, vah, &c. Adverbiorum vero Flexio, est casus ab his distinctus, modum actionis significans; ut pomesai, admiranter, ponesai, amanter, &c.

Notandum etiam in Tabulis Accidentium, licet posuerim Notiones primitivas, vocibus Latinis expressas, aliquando Verbaliter, aliquando Nominalliter, idque nonunquam in fenu Adjectivo, nonunquam Substantivo concreto, nonunquam abstratto; tamen notio Radicalis et prima, concipiendae est in fenu Abstratto, quod Lingua Latina (in hoc vere Barbara) fine Barbarismo exprimere non finebat. Sic, hae Notiones, Dominus, Seruus, Rex, non sunt exprimendae per folias voces Radicales, sed voci Radicali addenda est terminatio el: e enim est significativa Adjectivi agentis; ivero perfone; sic, Kame, Kramel, Kanel.

Notandum ultra, v in principio dictionis est Characteristicum vocis numeri significativae: Hoc fit ne fiat confusio inter voces Numericas, et voces aliarum notionum significativas hujus Linguae. Præterea voces Numerorum Ordinalium formantur a vocibus Cardinalibus, adscendendo literam servilem s, et a Flexionis Adjectivæ significativam; sic, vasæ, vasa, vasa, &c. primus, secundus, tertius.

Ultimum quod hoc loco addam erit de Menfuris. Menfuræ, cum non minus sint et Arbitrariae, et variae apud varios Populos, quam sint voces Linguarum, ideæ sequum judicio in hae Lingua Philosophica, ut requeat omnibus vulgaribus Menfuris, non minus quam Vocibus, novæ Menfuræ prius formentur quam iiis significandis Nomina instituantur. Verum quidem est, cum nulla detur determinata quantitas a Natura quæ fit primum Prin-
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cipium et Regula mensurandi, arbitrium necessario est admittendum in mensuris constituendis, non minus quam in primitivis vocibus instituendis: Verum si unum primum principium ex Arbitrio admittatur in uno quoque genere Menfuræ, hoc erit Regula Menfurandi quamlibet quantitatem; nec necessarium erit, dato femel hoc primo principio Menfuræ, instituere diversas et distinctas voces ad significandos distinctos gradus Menfuræ in eodem Genere; sed omnes alias Menfuræ exprimendae effent per divisionem vel multiplicationem prime Menfuræ. Sic, supposito quod in genere Ponderis, ounce effet primum principium Menfuræ; Menfuræ vulgo pound, effet exprimenda 16 ounces. Nolo hic in me fuiciper, quod fit istud principium mensurandi in singulis generibus Menfurarum determinare; sed rem hanc (cum alii) virorum doctorum judicio, in hac Materia me magis versatorum subjecio; opinionem tamen meam hic fice offero: Minima Menfuræ quae a viris doctis usum obtinuit in mensurando debet primum principium mensurandi constitui.

Aliam praeterea rationem determinandi Menfuras, et sic Nomina illis imponendi in hac Lingua cogitavi, viz. Cum (ut dictum) omnis determinatio Menfuræ sit res omnino arbitraria, et Menfuræ apud varias Gentes variae sint, ideo Regulam mensurandi constituisse Menfuras apud nos Britannos in usu: Si enim Arbitrium necessario fit admittendum, consensuum video tur, ut nostrum Arbitrium hic præferatur; ut feciant aliiæ Nationes unde haec Ars primam originem duxerit. Verum cum nostræ Menfuræ, non minus quam aliorum populorum sint fine ratione institutæ; id est, variae denomina tiones Menfurarum in eodem Genere Menfuræ, non distinguantur et excedant se invicem, secundum regularem et eandem quantitatis proportionem, e. g. 4 farthings (quæ est minima Menfuræ in Genere Pecuniae) faciunt unum pennie, 12 pennies faciunt unum shilling; 5 shillings, unum crown, 4 crowns, unum pound (eadem est irregularitas proportionis in aliis Menfuris) omnino contra solum Linguæ Philosophicae sufficit, his Menfuris sic determinatis Nomina impofuisse. Deinde non est supponendum, licet haec Lingua ita invaleret, ut usum omnium alienum Linguarum exterminaret, quod valde est improbabile (licet enim mihi admodum probabile videatur eam ita invalituram in posteris faculis, ut omnes Gentes cultae et Literatae ea nesci fuerint, quomodo nos Europæi utimur Lingua Latina; non est tamen pro-
babile, eam ufum omnium vulgarium Linguarum penitus aboleturam) quod propteræa omnes Nationes, Antiquas et ufitatas Menfuras fimul cum Linguis rejicerent.

Quare tertio, omnibus his consideratis, concludo; nisi hunc arbitrarium morem menfurandi mutare possessus in Philosophicum, frustra effet Nomina Philosophica his Notionibus non Philosophicis instituere: Quapropter dum Gentes omnes confenerint mutare hunc menfurandi modum, retinencum Arbitrariis Menfuris etiam earum Arbitraria Nomina: Cum igitur ferno habetur in hac lingua de Menfuris alicujus Nationis, exprimantur per Nomina ab ipsis ufitatas, tanquam essent propria Nomina viro-rorum vel Locrorum.

Tenendum tamen est; bene instituit posse Menfuras Temporis (adeoque etiam in hac Lingua, Nomina iis significandis) ad distinguendos diversos gradus vitae in rebus Animatis: Ratio est, quia hic datur fundamentum in re ipsa; et ideo in omnibus fere Linguis vulgaribus, certi quidam gradus temporis vitae, distinctis Nomibus insigniti inveniuntur: ut in homine, infantia, pueritia, adolescencia, iuventus, status adultus, senectus. Quidam etiam distincti gradus notantur in plantis et brutis.

Notionum quæ sub cognitione humana cadunt, Numeri sunt a sensibus maxime abstraèti; ideoque anima humana (quæ dum corpori alligata Sensus minifterio utitur) dum notionum puræ Numerarum recordatur, cogitetur Numeros applicare ad res sensibiles: Ita ut vere dicit, omnem Intelle&ctus operationem ultimum respolvi in numeros, et hos si non necessario femper (quod non aude pro positæ affere) saltem sipiffine, primo rebus sensibilibus applicari.

Admitto etiam sex gradus mensuræ temporis in genere, vocibus numericis distinguimus, ni. minutum, hora, dies, septimana, mensis, annus; sic, danae, daner, danac, &c. dici etiam potest, danuai septimana, daniar mensis, danial annus.

Hic ultimo teneatur de gradibus confanguintatis et affinitatis; modus maxime proprius et Philosophicus exprimendus in relatio que (quia facil. maxime secundum ipsius Rei naturam) est per voces desumptas a notionibus Primis et Radicalibus, in quibus est Relationes fundator. Sic, pater pagol, id est, persona gignens; mater patel vel pratel, id est, persona concepiens, vel pariens; avus, pater secundus; proavus, tertius pater; atavus, quarius pater, &c. Adeoque hoc sensu, Adam est nofter ultimus seu pottemus pater. Sic filius pagol, id est, persona genita; nepos, secundus filius; pronepos, tertius filius, &c. Sic fratres, sunt cognati prii (nam teneatur, sãb significatione confanguintatis relationem collateralem, non quam qui est in linea recta) cognati secundi, qui habent eundem avum; cognati tertii, qui habent eundem proavum, &c. Avunculus, id est, frater patris; matertera, id est, soror matris, &c. idem intelligatur de gradibus affinitatis, id est, peripherastic exprimendis sunt mariti patris, mariti frater, &c.

Sequitur reducio precipuarum vocum Linguae Latinae, ad Notiones Radicales hujus Linguae Philosophicæ.

Et hic tenendum: Cum hic mihi tantummodo propositum fit principia et fundamenta hujus Artis ita propone, ut a viris doctis apprehendantur; ideo 1. Voces in Tabulis positæ brevitate causa hic non repetivi. 2. Nec omnes voces Latinas hic posui; maxima enim pars vocum quæ reperiuntur in Lexicis, vel sunt Derivative et Compositæ, ut, bonus, bene, bonitas, beneficio, &c., vel tales sunt voces, quibus in aliis Linguis nullæ voces simplices respondent, sed peripherastic exprimuntur; quales sunt quam-
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plurima Nomina vestium, vasiunm, ciborum, &c. quarum explicationem, per voces hujus Lingue hic intendisse prolixum nimis fuisse, praetera etiam superfluum, cum viri docti satis sciant has voces resolvere per ea quae hic tradita sunt: Audiam autem Lexicon in gratiam vulgi postea parabitur. 3. Nemo doctus expectabit me per voces hujus Lingue redditurum eundem plane valorem omnium vocum aliarum Linguarum fine peripherai; hoc enim est impossibile, quia esse labor infinitus. 4. In explicandis vocibus Latinis hic positis non usus sum longa peripherai verborum, nec omnes earum varias accceptiones enumeravi, sed breviter tantum expressi praecipuas Radicales voces hujus Lingue per quas explicandae sunt; possum etiam quaedam Notiones quas ego per voces compositas expressi, aliquando pro re nata, aptius peripherastice et divisim exprimi, et e contra; vocum tamen Compositione, compendio et Emphasis causa, omnibus modis studendum est; et ad hoc faciendum cuique sua libertas linquitur, modo ratio Compositionis fit clara et evidens; in hoc enim summum Philosophe acumen apparebit, multiplicare per Compositionem et Derivationem signorum compendia Emphatica ex paucis Primitivis fine obfuscitate.
LEXICON LATINO-PHILOSOPHICUM.

ABACUS, fran.
Abbas, kaf.
Abdicare, sofkafeas, trud sofalem.
Abdere, dit.
Abire, bempnd:
Abhinc, shub lol dan, bem lol dad.
Abhorrere, prebesv sompron, trof.
Abjurare, scabe trimesv.
Ablactatio, soffe, sofim.
Abolere, sofshanesv, grupesv, sofiavresv.
Abominari, sompronesv.
Aboriri, pratesv sib danu.
Abripere, dos don bemdep shekai.
Abrogare, sofiavresv, sofkebesev.
Abrumpere, domesv donev.
Absolevere, kon shon sis.
Abstemius, sofprafemp.
Abstinere, trus preb tim sodesv.
Absurditas, shib prems sofos.
Abundantia, sway sibdu.
Abusus, shig.
Abyssus, dadbaf.
Academia, dadtem fantem daddis.
Accendere, nmesv, esmesv nmm.
Accidere, sakesv pke ded.
Accingere, drod sitresv.
Accipere, sprub.
Acclinitas, bimum.
Accolere, sid shwmbem.
Accommodare, stop sitresv.
Acervus, drotor, —— ind ut nefnd.
Acetum, form vel flem grind.
<table>
<thead>
<tr>
<th>Latin Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aequinocia</td>
<td>tose shumir</td>
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<tr>
<td>Aequo</td>
<td>grupu enf nef gob.</td>
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<tr>
<td>Aequumna</td>
<td>prob pred.</td>
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<tr>
<td>Aeriemum</td>
<td>fandum.</td>
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<tr>
<td>Aestas</td>
<td>dangam.</td>
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<td>Aestus, gamu shuna</td>
<td>damu shuna enf is.</td>
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<tr>
<td>Aetas</td>
<td>danerp.</td>
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<tr>
<td>Aether, nam, nm.</td>
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<tr>
<td>Aevum</td>
<td>daniel vail.</td>
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<td>Affectus, peb, pis, pos.</td>
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<td>Afferre</td>
<td>bremdep.</td>
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<td>Affinitas, streb sted.</td>
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<td>Affigere, kofeship prob kum.</td>
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<td>Ager, nom nuba, slan.</td>
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<td>Agger, rep nomind.</td>
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<td>Aggregi, sem kum.</td>
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<td>Agrestis, stran.</td>
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<td>Agilitas, sprut, dam, sod.</td>
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<td>Agmen, shum ——— ind.</td>
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<td>Agricola, nomespelp.</td>
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<td>Agnatio, steb.</td>
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<td>Agnomen, ton suba.</td>
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<td>Agnus, nekpinva.</td>
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<td>Ah, prob.</td>
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<td>Ahenum, fren nefgoba.</td>
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<td>Alabrum, sabframdef.</td>
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<td>Alacer, pob prim.</td>
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<td>Alapa, digu enf smus.</td>
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<td>Albugo, shunu gofa ent mns enf snur.</td>
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<tr>
<td>Alchemia, temu enf gakreu enf nef.</td>
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<td>Ales, mib spafa.</td>
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<td>Alias, danslon.</td>
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<td>Alibi, dadelom.</td>
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<td>Alienare, gug shnd strof.</td>
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<td>Alimentum</td>
<td>sangum.</td>
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<td>Aliquando, shundan.</td>
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<td>Aliter, slomes.</td>
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<td>Alius, solm.</td>
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<td>Allevare, dremresu pobresv.</td>
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<td>Allicere, tum spak.</td>
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<td>Allidere, shomdennesv.</td>
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<td>Aluccinari, tren.</td>
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<td>Alludere son epam pop.</td>
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<td>Almus, gum pok.</td>
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<td>Alere, gum.</td>
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<td>Alphabetum, tommu sna.</td>
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<td>Altare, fran skaga.</td>
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<td>Alter, siomen.</td>
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<td>Altercari, spap.</td>
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<td>Alternare, enf shnd.</td>
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<td>Altitudo, bafs.</td>
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<td>Alvareium, dadu enf snap nengm.</td>
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<td>Alvus, ab enf ris.</td>
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<td>Alvus, fos.</td>
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<td>Amanuensis, trin.</td>
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<td>Ambages, trommi epake sliba.</td>
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<td>Ambiguitas, sib tose shumir.</td>
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<td>Ambitio, trobpebutf.</td>
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<td>Ambitus, ebf beg.</td>
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<td>Ambo, vn, lol tnm let.</td>
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<td>Ambulare, phb.</td>
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<td>Ambulacrum, dadphb.</td>
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<td>Amentis, grugrin.</td>
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<td>Amita, stebpragva enf pagel.</td>
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<td>Amnis, ris.</td>
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<td>Amenitae, ped pob.</td>
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<tr>
<td>Amphitheatrnum, fran spafo, fada, feda</td>
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<tr>
<td>Amplecti, beg smu.</td>
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<td>Amplus, sem beisam ban.</td>
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<td>Amussis, sabbfr.</td>
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<td>Anathema, truf.</td>
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<td>Anatome, temdoniov.</td>
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<td>Anfractus, bryf.</td>
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<td>Angere, pred prob.</td>
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<tr>
<td>Angina, grugmir.</td>
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<tr>
<td>Anhelare, grugsheppam.</td>
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</tbody>
</table>
Animadvertere, psf; pem.
Animal, on snpe.
Animus, eiv tam.
Annulus, fromemus mad.
Annus, danial danu.
Ansa, sunu don df.
Annales, sefdan.
Anteferre, subpop befdad.
Anticipatio, sub bef sodev sames.
Antipathia, shom.
Antipodes shomesmwr.
Antiquitas, drab.
Antistes, strf.
Anus, dobu snt jus.
Anxietas, pred, prob pum.
Apex, rab.
Apoplexia, grugosfpies grugdod.
Apostata, sofalem.
Apostema, grugbrap.
Apostolus, kad.
Apparere, mvfsw, pem pef.
Appellare, ton.
Appendix, shunu tmyo droso.
Applicare, dit dad.
Approbare, tad tef.
Aptitudo, sit sos.
Arbiter, kmel tudo.
Arca
dum, dit sofem.
Ar cere, krum shaf drg.
Arduus, shop baf shnb.
A ren,
A rgentum, nes wsa.
Argilla, nafgop.
Argumentum, ses, sog.
Arguere, tap trub kib.
Arista, sg.
Arithmetica, temtrg.
Arumentum, — ind neikflanind.

Arare, sian.
Armilla, fromemw.
Aroma, neibdeig gema.
Arra, shunu snf strdu.
Arrestare, kod.
Arriede, spam ped.
Arrogantia, trbosodpop prig.
Articulus, smes drod.
Arx, fan kusa.
Asendere, dam pnb pnd bns ben.
Aspicere, mns.
Aspirare, pam, dnf spm.
Assiduitas, pip slem.
Assuevere, set.
Astrologia, temias.
Asylum, dad snb.
Atomus, mam.
Atrium, rebak.
Atrix, pit pin.
Avaritia, trd pok.
Author, sas sam sem.
Audacia, put pot.
Audire, mnr.
Auferre, bemdep.
Augere, vyn.
Aurichalum, nefgud.
Aurora, semu snf dangom.
Aurum, nesfimap.
Austeritas, grn prid pin.
Aut, strf.
Automatus, sabbad dame lut.
Autumnus, danrag.
Avunculus, stebei vasm snf patel.

Bacca, ragmog.
Balbus, grugshaftin.
Balneum, dadnimeif.
Baptismus, nimesif skapnim.
Barba, amnis.
Barbarus, pit softos.
Barritus, panu enf nokvaf.
Basium, neis.
Batillum, frennum.
Bestitudo, skan saku sima.
Benignitas, pokpon.
Biblia, sefasasva.
Bilis, sm.
Bilanx, sabotgdmn.
Bitumen, nafgap.
Blesitas, grughaftim.
Blanditie, pop.
Blasphemias, truf saava.
Botrus, ragnum.
Bracce, emmtfreim.
Bractea, mem.
Braxare, godesu fwm.
Bucca, noe.
Bulbus, mob.
Bulla, mob enf nim.

Cacare, em dragresv fos.
Cadaver, ov shupa.
Cecitas, sofina.
Cedere, shryptew.
Caelare, temdom trim.
Celebs, trim stef.
Ceremonia, stam.
Cesius gop.
Cespes, shunu fuf mem enf nom.
Cespitare, shaf omus grugpas.
Calamitas, skron prob.
Calamus, fam ind.
Calcar, sabdik.
Calceus, freismemor.
Calculus, grugnuf sabtungsam.
Caliga, freismemor.

Callere, gab prim.
Calva, mas.
Calvities, gugosam.
Calumnia, kibu shiba.
Campus, lor.
Canistrum, fron.
Canities, am gos.
Captiveas, kug.
Canon, keb tok.
Capere, dof.
Capistrum, sabmeisdrom.
Capes, fem fron fron.
Carbo, son sofnum nafnum.
Carcer, daddog.
Cardo, ib.
Caries, grosp.
Carina, ab enf fum.
Carminare, drop sud.
Carpentum, fihn.
Carnex, kashsprel.
Carpere, drid drot.
Cartilago, raf.
Carus, etd sm.
Cass, fan strub.
Caseus, fiom.
Castellum, fankus.
Castigare, kef.
Castrare, sofemar.
Castus, topbap.
Casus, sak ene tron.
Catalogus, fefton.
Catena, sabbrod fron.
Catulus, nik poiva nik primea, &c.
Caudeex, ind.
Cautus, tef prim pud.
Caulis, ind.
Caverna, ol.
Celebritas, etuf stum tip.
Celeritas, den.
Celula, fan.
Celare, dit.
Centrum, mam brepa.
Cera, nemm.
Certare, spap kub spng.
Certitudo, sib.
Cervisia, fom npm.
Cessare, sofod sofalem.
Chaos, ov sofshana shud.
Character, tom dip.
Chirotheca, frecimus.
Chronica, sfsan.
Cicatrix, dipu sf domu fuf sf.
Cicur, prin.
Cingere, beg drod.
Circa, beg.
Circumferentia, eb.
Circa, lolinb.
Cisterna, fremm.
Civitas, fanind.
Cithara, fub.
Clam, sofem.
Clamare, ampan.
Claritas, gon gid.
Classis, fremind sdd.
Claudus, sofemur grgpb.
Clavus, 'f jm.
Clavis, sabdog.
Clementia, prit.
Olivus, biin.
Cloaca, fam sif avvi shiffa.
Clunis, fus.
Cochleare, fremm.
Cena, steim, paf shemdamom.
Cogitare, tat.
Cogere, shek sed.
Collegium, stes fanites.
Colare, freimmeir.
Colom, top.
Colus, sabfram.
Comis, printran.
Comma, top.
Commercium, stes stos.
Communicare, pemrefu toresv.
Compendium, braa.
Compositio, shyn.
Computatio, tgeev shum tm.
Conatus, df.
Concedere, tad.
Conscio, trodu stna, skasa.
Conculcare, bresemwres.
Conclusio, trum shum int.
Condire, gnosrsv.
Conditio, sna tem.
Condonare, stvp.
Conducere, strob sig.
Condylus, sneis.
Consideratio, tat.
Consumere, gnp sofsham.
Contra, shom.
Convenire, dim sprap sos.
Conversatio, stes sod.
Convivium, fleim shek subpafu.
Copia, som.
Coquere, gud.
Corium, yf.
Corona, fremeis.
Corrigere, sensis sensham.
Corruquer, dek.
Corrigis, shundof sf freimesmu, sabdig.
Corruperere, gnp, sofsham.
Coruscare, gom.
Cras, danve dangom shub.
Creare, samev son sofavar.
Crepusculum, glom.
Creta, nafgo.
Cribrum, sabsinrer dobo.
Crimen, kus.
Cruditas, grad.
Crumena, fromsum.
Crus, smer.
Crusta, memgab.
Crux, sabshypren bruna ship prob.
Cubare, puk brum.
Cubile, frun.
Cubiculum, fanfrun.
Cudere, dib dig.
Culina, fanfeingud.
Culmen, rab.
Culpa, prem kus.
Culter, sabdom.
Cumulus —— ind rep.
Cunse, frunuva.
Cuneus, sabdrob.
Cupio, pkb tig.
Currire, sumpnb.
Cuspis, shundik bep.
Custodire, shad.

DEBILIS, sofsoef.
Decretum, kom.
Decere, sit seb shanu sima sin.
Decipere, spak.
Decorum, shanu sima sin sudu sima sit.
Decus, stsf sin prog.
Decesus, sofase shin pog.
Dedicare, spst trvm.
Dedignari, prop tagesv sofsest.
Defetisci, spnt.
Deficere, shud shng.
Degener, sossen pagel.
Deinde, shubud shubdan.
Dejecere, dedress denesv bs bren.

Deinceps, shubdan.
Delere, sofsohan.
Demere, dos trvm.
Democra tas, kastrefo.
Demonstrare, pomresv sibresv.
Denique, shubapai.
Deorsum, bs bren.
Depere, gomesv slam sofudo.
Descendere, pnd dam bs bren.
Designare, tonesv shug trvm.
Desinere, sofsoem.
Desistere, sofsoem dram.
Desperatio, sofsoef.
Detrimentum, stng shud.
Dextera, smu beba.
Diabolus, oiv shima.
Diadema, from meis sof kanel.
Dialogus, suttinu sbotinu.
Dieta, seepaf danpaf dantut.
Diameter, ib.
Diarium, sef danve.
Dico, tin tim.
Dies danve dangom.
Differre, slom.
Dignitas, stsf stvd sat.
Diluculum, semgomb glom.
Diluvium, nimdit.
Dimidium, shunu vsa.
Dirigere, damresv babai sud.
Disputare, tap shom tap.
Diu, somdan.
Divortium, strenu enf stefu.
Dolare, gratsesv.
Dolus, spak shib.
Domare, kut prinsesv.
Dos, fum stvb stefa.
Dubitare, sib plem.
Durare, danesv slem.
EBRIETAS, trubpraf.
Ebur, nas eif mksuf.
Ecce, puf pom.
Ecclesia, steckam.
Ecostasis, grug shg sp.
Esurire, pebpaf.
Egere, shg.
Egregius, sin simap.
Electrum, ad eif sneigigigema.
Eleemosyna, stjifrit.
Elementum, shan vasa neim groinpomp.
Ellychnium, fum mmn bapa snm frn.
Eloquentia, temtin simtin.
Embryo, snus.
Emungere, stf.
Ephippia, frim nskpotas.
Episcopus, kaf.
Epistola, trin.
Equitare, nskpotdepos.
Eremus, nom gruna sofstdo.
Erigere, bmrresu.
Esca, fleim gumer.
Evangelium, tibeb.
Eucharistia, skappik skappaf.
Evenire, shed.
Examinare, tob tid.
Exsanguis, soffien.
Examinare, sheprew sofeivresu.
Excellentia, sis sim.
Excommunicare, sofstes.
Excusio, dos beddenesu.
Excudere, trin dip dibtrin.
Exercere, set spnp.
Exercitus, kragind.
Exhalatio, nein.
Exilis, shom grad.
Existere, ao.
Exlex, kob shg keb.

Exorcismus, kok.
Exoriri, sem guf ben.
Explicatio, tif.
Expugnatio, kut.
Exter, bed stred.
Extinguere, shmesu nmm sofsham shp-resu.
Exilium, kob.
Exuere, soffreim sofdit.

FABER temel.
Fabula tighib.
Facetie pid.
Facere sam.
Facultas sfem tem.
Fæx groip.
Fæx, sabdom braba.
Fames, grugesug fleim.
Farrago, gom shud.
Farina, mamind difo snf nub.
Fas, kaf keb.

Fascia, srmdrod
Fascinare, kok.
Fastidire, preb prop.
Fateri, tuf kig.
Fatigare, epnt.
Fatum, sak komor trnor snf sausa.
Favere, pon.

Favus, nengmind
Faux, neir.
Fas, frn.

Febris, gruggam.
Ferax, gun.
Ferre, dep.
Ferrum, nefgab.
Festinare, dim.
Festus, skas.

Fibula, sadbrod.
Fictio, pug tem shib.
Fidelis, sib sid sofug.
Fides, tsp.
Fiducia, tsp sib.
Figere, domresu dramresuv.
Figulus, samel sof frenni noma.
Filius, pagol.
Fimbria, bap.
Firmus, dram sofdam.
Fistula, fam fab.
Flabellum, sabb damnem.
Flagellum, sabdigi.
Fligere, dig pronresu ship.
Flare, nemesuv pam nm.
Fluere, gak.
Fluctus, gaku sof nim.
Flumen, ris.
Fodere, bagresuv nom.
Foessa, dadbog ol.
Fedus, stos.
Fenus, strymum.
Fenum, nab.
Follis, sabb damnem.
Forceps, fm.
Formosus, sin.
Fornix, rep.
Forte, sak shed.
Fortis, sof deb.
Forum, dadtetof.
Foveo, shad gum pum.
Fomes, shan sof nm.
Frenum, sabbomeis.
Frater, steb vasa.
Fremere, sngis.
Frendere, nasdim.
Frequens, set shum
Friger, gud.
Frivulus, sofshem sofisig.

Frustra sofshem.
Fuga, psp.
Fulcere, dud.
Fulgere, gom sengom.
Fulmen, gisies.
Funda, sabden.
Fundamentum, ab.
Fundere, gakresuv bedgakresuv.
Fundum, ab.
Fungi, kas.
Funus, stam nomdit shupalli.
Furca, sabbikin.
Furfur, shunsir sof maimind.
Furor, smpod.
Fustis, sabdigi neiga.
Fusus, sabframdef.

Galerus, freimmeis.
Garrirre, pan neip tin omstin.
Gangreena, grugrup.
Gelu, gramsob.
Gemitus, grugredgis.
Genealogis, sfsug sfssteb.
Genus, tob sug pad.
Generositas, pot stuf.
Generalis, sug sun.
Genus, sten.
Germinare, guf.
Germanus, sib.
Gigas, uvim.
Genius, tam.
Glaber, sofam.
Glacies, nimvob.
Glans, rag sng mus.
Glancus, gop.
Gleba, shunnom.
Globus, mus.
Glomus, musfram.
Gloria, stef prog sin.
Glubere, dos vf.
Gluma, ig.
Gluten, shangap res.
Glutio, paf.
Grammatica, temtos.
Grando, nenam guba.
Gramum, gepar suma rug.
Gratia, pon skom pik.
Gratia, stifi.
Gratulare, stat.
Gremium, shunu bem smrlri.
Grex, shum, — ind.
Grundia, ek.
Gubernare, kan sud.
Gula, nas.
Gutta, mam srf nim.

HABENA, shunduf srf sabbunmeis.
Habitudo, son srf.
Habitus, set.
Hamus, rbshup sabrub sabbrab.
Harmonia, soegis.
Harpa, sabrid sabdu.
Haurire, deb.
Heddomas, danvo danvai.
Habetudo, pim tamu sm a.
Hurus, kam.
Hilaritas, pob pid.
Historia, lig.
Hodie, loldance.
Horizon, mab bepe mru.
Horreum, fanneib.
Hortus, dadneid.
Hospitium, steg.
Humernus, fes.
Humilis, prot bren.
Hyems, dangram.

Hypocautum, fangam.
Hypocrira, pug.

JACTARE, prog.
Jaculum, fip.
Janua, ak.
Idea, sag.
Idioma, tin.
Idolum, savca shiba.
Jecus, enes.
Jejunus, pebpaf drag grun.
Ignominia, trud pog.
Ignorantea, sofpe.
Ignoscere, kof kon step.
Illidere, dam den shom.
Imago, skom sag.
Imber, non.

Imminere, iud tim ben meis dedemp
Imo, tim sib.
Impensa, step.
Importunitas, don shit ship sud.
Imputare, kib.
Incendere, semesu nm.
Incetasus, kof steb.
Incitare, epad tub.
Incommodum, sofseg steg shub.
Incus, sabbrendig.
Indoles, tam.

Indulgere, pon smpum.
Induere, freimesu dit.
Indusium, bredefreim.
Industria, pip pum smp.
Infana, uvoa.
Ingenuus, pis sima, tub sid.
Inguen, snu snav.
Initium, sem.
Inocentia, sofku keb.
Inopinans, sofput.
LEXICON

Isigne, tos strf tsokus.
Instituo, tib trn sud.
Integer, sis sun sofdom.
Intercapedo, bem.
Intercedere, pmbeu bem lol brem lei entkif.
Interdum, shundanni.
Interesa, trimshaf luidan leidan.
Interest, seg sig steg.
Intermitto, sofalem.
Interstitium, bem.
Intricare, dop shop.
Inventarium, sehfrein.
Invicem, ent.
Iris, mabgosies.
Irritare, epad sofsham.
Iter, pnd.
Jubere, tup.
Jubar, mm snf gomu.
Jugulum, meir.
Jugum, sabsdosomeir.
Jumentum, meik scep.
Jungere, dros.
Jurgium, sopap.
Juvenis, uwev.

LABARE, ded.
Labarinthus, shop.
Lacertus, emn.
Lacus, lit.
Ladere, predesu kum.
Latari, pob.
Laevigare, gratresv.
Lagena, fren mfa.
Lambere, naresv.
Lamentari, epab spram.
Lamina, mem.
Lampae, fmn.
Lana, am snf nekpim.
LATINO-PHILOSOPHICUM.

Lucus, grughrifnum.
Latum, nomshif.
Luxuria, trooped.

Macer, grad shomief.
Machina, sabkus.
Macula, elongos.
Madere, gan.
Magnus, sm.
Majestas, sumu kana.
Mala, no ns.
Malleus, sabdig sabbid.
Malle, tod sm.
Mandibula, ns.
Mane, semdangom.
Manere, dram siem danesuv.
Manica, freimemese.
Manifestus, pemo.
Manipulus, — ind drot.
Mantile, freimfran freinmessif.
Mantice, from.
Manubrium, shundof.
Margo, beb.
Marsupium, from.
Massea, mim.
Mater, pragel.
Matrimonium, stefu.
Maxilla, ns.
Mederi, gugresv.
Meio, remesuv.
Mel, nengum.
Membrum, shun sif ov.
Membrana, nif grada ed grada.
Menda, sir trenshud.
Mendacium, tinshib.
Mendicare, tun fleimtun.
Mens, cie tam, tat.
Mentio, tin.

Mensis, danuv daniar.
Mereri, sat.
Meretrix, lub.
Meridies, brepdangom.
Meta, tos bep.
Methodus, sud.
Metere, dom drotesv raggj.
Metrum, trog.
Messis, dandrotrag danrag.
Mica, shunif.
Migrare, shndesv stidu bemdam.
Mimus, pon.
Minuere, shumresuv.
Mittere, podresv stin.
Modus, ev snes ses.
Modestia, todpog.
Molare, dif.
Momentum, dana.
Monachus, kaf stes.
Monere, penresv tub.
Moneta, fum.
Monstrum, gop shuk.
Monumentum, femshyp av penre.
Mora, dan shaf.
Morbus, grug.
Mordere, naseuv.
Mortarium, frendif.
Mucere, grp.
Mucro, beb.
Muloere, din prinresv.
Mulgere, sabbid drid en.
Mulier, uv prag.
Mulcta, fumkof.
Mundus, avind.
Mungere, dib sif.
Munire, vpeuv rupesv fepesv.
Munus, sif.
Murmur, grid.
Marus, ip rep up.
Musculus, esf.
Musica, tempis.
Mussare, tines gridai gibai.
Mutulis, sir shige shunu.
Mutus, softin.
Mutuart, stop.

Nevus shin shif.
Nanus, uvif.
Nares, doggu sf fmv.
Nasci, prat.
Natura, sav en shan sek.
Navigare, nmdepos.
Nauseas, grug pebdag enal.
Nebula, nengrafes.
Nebulo, uv shima shiba, kusel.
Nec, tvm trim.
Necesse, sed.
Necare, shyresu.
Nectere, drop dop.
Nefus, sofkef sofkeb.
Negligere, priip.
Negotium, sar sod san.
Nemus, snaigdad.
Nere, framresu.
Nequam, shim kus.
Neuter, sofau sfv vn.
Nictare, dam mn.
Nidus, dadneiprat.
Niger, grof.
Nimis, srd.
Ningere, nen gofa gova.
Nitere, gom boggom.
Nocere, shig km.
Nodus, drod dop.
Norma, sabbab tok.
Noecere, pem.

Notio, taf pem, shan.
Notorius, smpemo.
Notare, tos puf.
Nothus, pagol sofstea.
Novacula, sabdom.
Nox, dangrom.
Nubere, stef.
Nudus, soyit soffreim.
Nuge, tinu pifa sofshama.
Nullus, sofiav.
Numero, trg shunu fus.
Nuncius, stinel tigol.
Nutare, damesv meis.
Nux, ragenig.

Obducere, dit.
Objicere, shomtun shomden.
Obroo, dit dedresv dib.
Obsecnitas, pog tinu papa.
Obscuritas, grum shep.
Obsec, stef.
Obsoleo, sofset.
Obstetrrix, sfapratel.
Obstnatus, tymphib.
Occidens, shunu breba sfv nam.
Occupare, dof stib.
Ocrea, freimsmer.
Œconomia, steis.
Officium, steis.
Officium, kas.
Officina, fansprop.
Oleum, ad.
Olerre, ges.
Olla, freen.
Omen, tos.
Omittere, trim samesv sodesv.
Omnis, sun.
Onerare, dem.
LATINO-PHILOSOPHICUM.

Opera, simp.
Opus, sopar.
Opportunitas, dansit.
Oraclum, tridu uss saus keb.
Orbis, mab.
Orificio, dog.
Oriens, shum beba usf nam.
Oscitare, grug dogmeis.
Ostendere, sameus naeseu pemesu.
Ostentum, av shuka.

Pascisci, stos.
Pagina, nb.
Palatinum, fan usf kanel.
Pallium, freimbed.
Pallere, gog.
Palma, shunu baga usf smu.
Par, svenshum.
Parabola, svnstrod sagtrod.
Parare, sad sistre.
Parvus, shum.
Pascere, gum.
Passus, pibus usma.
Pater, pagel.
Patrimonium, shbu sliima.
Patina, frengleim.
Patria, pratnom.
Paucitas, shumshum.
Pavire, gratreus rukreus.
Pacare, sprad krus.
Pecare, hae tren.
Pecent, sadropp.
Pecus, neik.
Pedere, fagis.
Pendere, hym dnd.
Pensus, sppu tro.
Penetrare, dob blum.
Pera, from.

Perire, sotac sofshan.
Perifere, sieresu shem.
Peripheria, eb.
Peritia, tem ten prim.
Pernio, grugemor.
Perperus, shim tren.
Pessulus, up.
Petra, nysfind.
Petulas, prig put.
Philosulphus, tem, temtef.
Phlegma, ran.
Pius skas skam.
Piger, prif.
Pila, mob spaf.
Pileus, freimmeis.
Pingo, trin fud.
Pinguus, gad of gm.
Pinaculum, mub.
Pistillum, sabdib dif.
Placeo, epag ped.
Planum, grat.
Platea, dadpsb.
Plauntruim, sim.
Plecto, dop.
Pleritis, grugfal.
Pluvius, real.
Poculum, frenpres.
Podagra, grugemur.
Peena, kof.
Politia, heis.
Pollux, esmus esma vasa.
Polliceor, shum.
Pompea, feid stam.
Pono, dam dad bns.
Populus, uvind.
Porrigo, drek.
Porta, ak.
Portentum, tos shuk.
<table>
<thead>
<tr>
<th>Latin Word</th>
<th>Latin Word</th>
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</thead>
<tbody>
<tr>
<td>Postis, ep.</td>
<td>Pruna, or nema.</td>
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<tr>
<td>Preceps, bimn ded.</td>
<td>Prurio, grugdin.</td>
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<tr>
<td>Precipitus, suf.</td>
<td>Puer, uvm.</td>
</tr>
<tr>
<td>Preda, kup.</td>
<td>Pulvis, mamind.</td>
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<tr>
<td>Predico, tin stm subtin.</td>
<td>Pupilla mnb suf mns.</td>
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<tr>
<td>Premiere, stib.</td>
<td>Purgo, sif.</td>
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<tr>
<td>Prejudicium, svtag.</td>
<td>Pus grvp.</td>
</tr>
<tr>
<td>Prelum, sabdib.</td>
<td>Pustula, gregnbinf.</td>
</tr>
<tr>
<td>Premium, stnt.</td>
<td>Puto, tag tat.</td>
</tr>
<tr>
<td>Preposterus, shubswb.</td>
<td>Putris, grvp.</td>
</tr>
<tr>
<td>Presepe, dadpaf.</td>
<td>Quaestra, cornb.</td>
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<tr>
<td>Prestigiae, shib spak.</td>
<td>Quatio, damreuv.</td>
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<tr>
<td>Prestolor, pum dap</td>
<td>Quatenus, son.</td>
</tr>
<tr>
<td>Pretendere, pug</td>
<td>Qualis, ev ens geis.</td>
</tr>
<tr>
<td>Prevaricari, tren shib.</td>
<td>Quisquiliae, shif.</td>
</tr>
<tr>
<td>Prandium, pafu brepdangom.</td>
<td>Racemus, ragonug.</td>
</tr>
<tr>
<td>Pratum, lornab.</td>
<td>Radius, mm.</td>
</tr>
<tr>
<td>Primitivus, mm.</td>
<td>Rado, dom din.</td>
</tr>
<tr>
<td>Princeps, kan suf.</td>
<td>Ranceo, grvp.</td>
</tr>
<tr>
<td>Privilegium, kebstrm.</td>
<td>Rapio, dos duf.</td>
</tr>
<tr>
<td>Procella, dam shek.</td>
<td>Rastrum, fem.</td>
</tr>
<tr>
<td>Proclivis, bism ded.</td>
<td>Ratio, tap sans.</td>
</tr>
<tr>
<td>Procus, pon tun stef.</td>
<td>Raucus, gruggig.</td>
</tr>
<tr>
<td>Procul, shombem.</td>
<td>Reus, kve.</td>
</tr>
<tr>
<td>Prodigium, pom.</td>
<td>Recens, dab.</td>
</tr>
<tr>
<td>Prophanus, skram skar.</td>
<td>Reciprocus, snt.</td>
</tr>
<tr>
<td>Proficio, sig sim.</td>
<td>Recordor, pen.</td>
</tr>
<tr>
<td>Profiteur, tim keig pem.</td>
<td>Recreo, sprnt.</td>
</tr>
<tr>
<td>Prodigus, tropyk.</td>
<td>Reddo, sensprob.</td>
</tr>
<tr>
<td>Progenies, pagoll.</td>
<td>Reformo, senshan sendab.</td>
</tr>
<tr>
<td>Prohibeo, tup shomtup.</td>
<td>Rego, sud pnt kan.</td>
</tr>
<tr>
<td>Promineo, brap bism.</td>
<td>Regnum, kan.</td>
</tr>
<tr>
<td>Promiscus, shud.</td>
<td>Relinquo, suf.</td>
</tr>
<tr>
<td>Promptus, sit.</td>
<td>Remedium, saf gug.</td>
</tr>
<tr>
<td>Promontorium, rub suf nom.</td>
<td>Repagulum, up.</td>
</tr>
<tr>
<td>Prosper, sak sima.</td>
<td>Reparo, senshan sendab.</td>
</tr>
<tr>
<td>Proverbium, tinu sugae.</td>
<td>Prudentia, tef teg.</td>
</tr>
</tbody>
</table>
Repentinus, pun don.
Repo, pnf.
Respublica, sten sthbu sthna.
Restis, fnm.
Resurrectio, sengup.
Rete, frempat.
Rheda, flin.
Rigo, gan.
Ripa nb srf ris.
Ringo, drit nassi.
Ritus, stam.
Rivus, rir.
Robur, srf dmb.
Rodo, din nas.
Rogo, tun tid.
Ros, nen grafa.
Rostrum, meis srf neip.
Rota, mah.
Rotundus, moh.
Rubeo, god.
Rubigo, grod.
Ructo, grugnemnsal.
Rudis, sofem gat stran.
Rudo, panu srf mskpm.
Ruga, dek.
Rumor, tip.
Rumpo, don.
Ruo, ded.

Sabbatum, danve vaisa.
Sacer, skam.
Sacrilegium, konskas.
Sacerdos, skagel.
Sal, nasgurf.
Salarium, frennasgurf.
Saltem, shuf.
Sanctus, skam.
Sapo, sansif.

Sarcio, senshan saf sis.
Satur, dag.
Saucius, grug.
Saxum, mfind.
Scaber, gat.
Scabies, gruggqnf.
Scamnum, frin dadpnk.
Scandalum, sprag.
Scando, dread.
Seateo, dot gak rir.
Scelus, kus.
Sceptum, sabrmd srf kanel.
Scheda, mem srf fnf.
Schismas, dos kvd.
Schola, fantrib.
Scintilla, mamnun.
Scope, sabif.
Scopulus, mfind.
Scoria, grpnu srf nef.
Scortor, kus.
Sculpo, trin dom.
Scutum, fp.
Sebun, ref.
Secretus, fofpem dit strnm.
Seculum, danial vali danemp.
Securis, sabdom.
Securus, srb prip.
Sedeo, psk.
Sedeo, sprad.
Sedulus, pum pip.
Semitas, dadpnk.
Senex, uo draba uvvu.
Sentina, sabdebnim.
Sentio, pns.
Sententia, trod tag.
Sepelio, brunnom dit.
Sepio, ip beg.
Septentrio, bref.
Sera, sabdreg up.
Serica, san srf frem sneipa.
Sermo, tin trod.
Sero, grp.
Serra, sabdom gata.
Sete, am.
Severus, prid pin.
Sibilo, grid panu srf nuk.
Significo, tos.
Sileo, softin.
Similis, sfn.
Simulacrum, sfn fnd.
Simus, musbrab.
Sindon, fremsned.
Singularis, sum shk.
Singultio, grugdeksnal.
Sino, sfaf.
Sinus, rb srf is.
Siphon, fam.
Sisto, dram dus.
Sitio, pebfraf.
Situs, bns grp shf.
Soles, ab srf smur.
Solennitas, stm.
Solicitus, pum pip.
Solidus, gad graf.
Solor, trug.
Solum, ab sum.
Solus, sum ster.
Somnio, prab pef.
Sorbeo, paf.
Sordeo, shif.
Soror, stebprag vasa.
Sors, sak.
Spatium, bmm.
Species, tloj shan.
Specimen, tloj preg.
Spectrum, mnson profre.
Specus, ol.
Spermo, prop.
Spina, srf far.
Spinter, dop drod.
Spisso, gaf gad.
Splendeo, gom.
Spondeo, stm.
Sponsus, stef.
Spongia, sabsif.
Spuma, memmsbind.
Spus, ran.
Spurius, shb pagol sofstef.
Stagnum, lir.
Stamen, fram.
Statno, tag trvn.
Statura, bam bg.
Sterquilinium, shifnd emind.
Sterno, dit dedres.
Sterno, grug sfnmus.
Sterto, grugprabpan.
Stillo, mam ded.
Stimulo, dik.
Stipo, krum prop.
Stipula, lsd rdn.
Stiria, mnm mb srf nimgb.
Sto, bmm.
Stabilio, dramresv, kob.
Stomachus, smal.
Strabo, grug brcms.
Stragulum, freimfrun.
Stramen, bsd srf nbd.
Strangulo, shafpm sofpm.
Strepo, gis gig.
Strideo, gis gig.
Stringo, dib.
Strophialum, frmsms freimsifmus.
Struma, grugmb meir.
Struo, feinesw drot.
LATINO-PHILOSOPHICUM.

Studeo, *tat*.
Stupa, *snud sir*.
Stupes, *pom grugposfpeis*.
Stuprum, *kuf*.
Stylus, *ex sabtrin sestrin*.
Suadeo, *tut tub*.
Suavis, *gwm sip*.
Subitas, *sohpun dm*.
Submergo, *brdmnesv brennim*.
Subsido, *ded dam bns ab*.
Subula, *sadbob*.
Suceedo, *shb*.
Sudus, *gon sobes*.
Sufficentia, *sld*.
Suffultio, *did*.
Sugo, *deb drid*.
Salus, *dri pu sfn flan*.
Samma, *sun*.
Suo, *dros*.
Superbus, *trwpop*.
Superflus, *vod*.
Supero, *svn kud*.
Sura, *emer*.
Sardus, *grugposfmer*.
Sursum, *dred bns ben*.
Susitio, *pabresev*.
Suspiro, *grugsheppam*.
Susurro, *trw grid*.
Syvra, *dadeneig sneigind*.
Symbolum, *tos*.
Syncerus, *sib sofipug*.

TAREO, *gruggropsbus*.
Tabula, *sf*.
Taceo, *softin*.
Tedeo, *smtp*.
Talis, *telns tolens*.
Talus, *af sfn smwr brapa*.

Tango, *brem gas*.
Telis, *frem*.
Temerarius, *softn*.
Temno, *prop*.
Temo, *shundon sfn stin*.
Templum, *fansava*.
Tempesta, *dan damu sfn nem*.
Tendo, *drek damesv bns*.
Tenor, *sud shan sot*.
Tento, *preg tub*.
Tepidus, *glam*.
Terebro, *dob*.
Tergo, *sfn din*.
Tergum, *uf far*.
Termino, *bep shem*.
Tessera, *tos mb spafa*.
Testa, *frwn noma mem gaba*.
Texo, *dop fremresw*.
Theatrum, *dadfad*.
Theasaurus, *fum stb*.
Thorax, *freimfeis*.
Tibialis, *freimsmer*.
Tingo, *gos*.
Tinnio, *gis nef*.
Titillo, *dinped*.
Titubo, *pnb bruf shaf pnb*.
Titulus, *mam ked*.
Toga, *freim bam*.
Tolero, *prod slaf*.
Tondeo, *dom*.
Tono, *gis*.
Torcular, *sabdi*.
Tormentum, *pred*.
Torno, *tendomesv mubai*.
Torpeo, *spt dm*.
Torquesto, *mabdamesvr*.
Torques, *frwm begmei*.
Torrens, *ris*.
| Torreo, num god.       | Vegetus, gugesprnt.        |
| Torvus, pit prid.     | Vehemens, svm pin.         |
| Trabs, ap.            | Vellus, ditu ama enf nekpim.|
| Tranquillus, dram.    | Vendico, krib.             |
| Tremo, profidam.      | Venenum, shupre.           |
| Tribunal, frinkhm.    | Veneror, skaf.             |
| Tributum, fumkan.     | Venia, stp.                |
| Tripudio, tempng.     | Venor, pst spnm.           |
| Tristis, prob.        | Ventus, er.                |
| Triumpho, fed.        | Ver danguf.                |
| Trochus, sabepaf moba. | Verbero, dig.              |
| Trudo, did.           | Verbum, trom.              |
| Tuber, grugbrap.      | Vercundus, tubpog.         |
| Tubus, fam.           | Verro, sif din.            |
| Tucor, krum.          | Verruca, grugbrpinsf.      |
| Tumeo, brap drek.     | Vertebrae droeo enf smeis.  |
| Tumultus, grim dimu enf uvvi shuga | Vertex, rab. |
| Tundo, dig did.       | Vertigo, grugdebrin.       |
| Tunica, freimeis.     | Veru, ib fleimgud.         |
| Turbe, —— ind shum.   | Vesper, shemu enf dangom.  |
| Turbo, er maddan.     | Vestigium, dipu enf smor.  |
| Turris, fankus fanfub.| Vexillum, toekus.          |
| Tyrannus, kanel pita. | Vexo, ship.                |
| Vaco, drag sofsoenp.  | Via, dadpob.               |
| Vadum, dradprad sof ris. | Vibex, dipu enf demu enf nf. |
| Vagus, sofistid trenpnd | Vibratio, dam den.        |
| Vab, prob.            | Victimae, skag.            |
| Valetudo, gug.        | Vicus, dabpob brana.       |
| Vannio, nemeisf.      | Vicinus, sted shum bem.    |
| Vaneeco, sofisam mneosv. | Video, mneosv peisgosev.  |
| Vapor, nein.          | Vigeo, gud sprnt.          |
| Vapulo, dig kof.      | Villa, prop sind shuma.    |
| Varius, slom.         | Villa, sanind shuma.       |
| Vasto, drag sofistid. | Villus, am.                |
| Ubertas, gun.         | Vincio, drod.              |
| Udus, gan.            | Vinum, adensug.            |
| Vectis, sabdeg.       | Violo, shin kum.           |
|                      | Virga, mmmdig.             |
LATINO-PHILOSOPHICUM.

Virgo, pragal soprasept.
Viscus, vd gapa.
Vito, pub oph shaf.
Vitalus, nokfianvat.
Ulicœcor, pod.
Uleus, grugropsгрp.
Ullus, av.
Ultimus, shoβ.
Umbris, grun.
Uncus, sabrbdσf.
Ungo, din dit dot.
Unctuosus,
Universalis, sug.
Unusquisque, sunsum sunshun.
Vola, shun baga maf smoe.
Volvo, deb.
Vomo, draqev mal.

Voveo, stm.
Urbs, fariind.
Urna, frem nomt.
Uro, vnomem.
Uter, luf smf vt av.
Utrum, tید.
Utor, sab slam sig.
Usurpo, stibes ςρom kob κοf.
Vulgus, uvvi str法人.
Vulnere, dom.
Vultus, mar.
Uxor, stefprag.


Naf Medium Minerale.

Carbon, rasγofunm.
Sulphur, rasγobunm.
Sal, rasγραf.
Argilla, rasγap.

Naf lapis Vulgaris.
Silex, rasγab rasfim.
Pumex, rasγραf.
Tophus, rasγραp.
Magnes, rasfdeb rasγad.

Cos, rasf bintre.
Alabaster, rasγgratfrat.
Marmor, rasγrat.
Gypsum, rasγρρp.
Coralium, rasγμμ.
Vitrum, 'rasγομυμm.
Crystallum, rasγομυμ'gona.
Gagates, rasγen.

Gemma Sνf.
Adamas, rasγρad.
Lexicon

Sapphirus, senyfrod.
Achates, senfshumgos.
Jaspis, senyfrod.
Carbunculus, sanfnumm.
Amethystus, senyfrod.
Chrysolithus, senyfrod.
Smaragdus, senfumugrod.
Topazius, senyfromgrom.
Chalcedonius, senyfod.

Metallum Nef.

Aurum, nefseis.
Argentum, nefyfosis.
Stannum, nefgoyfis.
Plumbum, nefgoysir.
Cuprum, nefygod.
Æs, nefygod.
Ferrum, nefygod.

Herba Neib.

Gramen, nab.
Cepa, nebian agmuba.
Allium, nebian aghana.
Cucumis, nib nubu.
Cucurbita, nib mona.
Melo, nib suma.
Malva, nebngaban.
Triticum, nebsim.
Hordeum, nebsim.
Tabe, nobiuybub.
Zizania, nobehof.
Pisum, nobiuf.
Sinapis, nebiugrom.
Lilium, nadrin.
Viola, senygem.
Urtica, snud oda.

Linum, snud ruggrata.
Cannabum, snud sfa.
Cicuta, senygen.
Mentho, senyges.
Hyssopus, senygem.
Cuminum, senygem.
Coriander, snud rugbag.
Nardum, senyib aggb.
Balsamum, senyibem.
Nad, agy-brag.
Aloes, snudgrem.
Laurus, neggem.
Erica, nag grunnm.
Ruta, naggem.
Thymum, naggem.
Rose, nag lagrim.

Arbor Sneid.

Fraxinus, snagum bamrug.
Tremulus, snag agdam.
Salix, snag raglay.
Quercus, senagum.
Abies, senag bab.
Ficus, senag agban.
Cedrus, senegbam.
Castanea, senag aggam.
Pomum, senag.
Pyrus, senag ragmob.
Morus, senag lading.

Brutu Exfanguia.

Apis, senagrum.
Culex, senpehof.
Cicada, snakspan.
Pulex, senkipug.
Pediculus, senkev.
LATINO-PHILOSOPHICUM.

Formica, *enkekpeg*.
Aranea, *enkeflam*.
Limax, *enkadrm*.
Vermis, *enak*.

Avis Neip.

Aquila, *napsev*.
Cignus, *napsef*.
Columba, *nipprin*.
Gallus, *nippot*.
Pavo, *nipsin*.
Hirundo, *neipden*.
Vespertilio, *nepboppm*.
Alanda, *nepbenpm*.
Phenix, *neipva*.
Cuculus, *nepsompan*.
Ardea, *napsempis*.
Corvus, *napgrof*.
Regulus, *neipshif*.
Struthiocamelus, *neipsef*.

Quadrupes Neik.

Equus, *nekpot*.
Elephas, *nkestf*.
Asinus, *nkepis*.
Mulus, *nkestfopad*.
Camelus, *nekbrupfar*.
Unicornis, *nekrimva*.
Bos, *nekflan*.
Cervus, *nekdm sna*.
Dama, *nekdm shna*.
Canis, *nikprim*.
Lepus, *nokdm sna*.
Cuniculus, *nokdm shna*.
Leo, *nippot*.
Pardus, *nikshumgos*.
Sus, *nekshif*.
Felix, *nokditiem*.
Crocodilus, *naksofrar*.
Chameleon, *nakshndgos*.

Sequitur Praxis,
PRAXIS.

PRIMUM CAPUT GENESEOS.

1. Dan femu, Sava famesa Nam ten Nom.
2. Ten nom avesa sof-hana ten draga, ten gromu avesa ben mem sof ba-fu: ten v v sof Sava damefa ben mem sof nimmi.
3. Ten Sava tinefa, gomu avefo: ten gomu avesa.
4. Ten Sava mafesa gomu fima: ten Sava dosefa gomu dos gromu.
10. Ten Sava tinefa granar Nom, ten tinefa deku sof nimmi, Iff; ten Sava mafesa lolar fima.
12. Ten nom gunea nab, neibeid gune rug fos fugu bula: ten fiej gune rag, rug sof-lul tim brefu lo, fos fugu bula: ten Sava mafese lolar fima.


17. Tan Sava dadefa lelli bred dad-dreku sêf nam sham gomeslu ben nom.


27. Tan Sava famefa uv fos fagu lûla, lelîl famefa lelîl fos fagu sêf Sava, lelîl famefa lelîlî pagel tan pragel.

28. Tan Sava tufesâ lelîlî tan tinesa shod lelîlîli, guneso, tan fuf-fonoso, tan dagefo nom tan kamêfo lela, tan kamêfo neitti sêf is, tan neippi sêf nem tan neikki tan fîneikki sêf nom.

29. Tan Sava tinesa, puf, lâl fêsbea shod lelli neibeid sâmâ gune rug, lul tim ben mem sêf nom sâm tan fîneig sâmala lul gunesi rag tan rug, lelli fagefi lêlla ñî fîleim.


Psalmus Primus. Tudu vasa.

1. Uv tim tufo lul trim pobeši fos tutu šf fimali trim bameši bred dadpabu kofelli, tšn trim pkeši bred dadšku šf uvvi šfrabemp.
2. Sor, lelil pobeši šhop kebu šf kamer, tšn tateši šhop kebu lela dan-gom tšn dangrom.
4. Kufelli, trim lolfi, šor tim šluš lll, lull nimm diši.
5. Lelfas fimali trim bameši bred dadkam, tšn kofelli bred šteši šf fimali.
6. Sas, kamer pemeši šoddu šf fimali, tšn šoddu šf šimalli šofavrošu.

Tudu vasa.

1. Lulsas štešni podeši, tšn uvvi takeši šoffhamar.
2. Kanelili šf šnom šubkundeši, tšn kamerli šubšteši šhom Safvu, tšn šhom pagol lulu.
3. Lallil donošo šabdrodu lella, tšn denešo šomi lella bem lalli.
4. Lelil lul štideši bred Nammi špamešu, Safvu štrabesu lelli.
5. Leldeši lellil šinesu šhod lellil podai, tšn šhipešu lelli šas podu lulu šima.
6. Lul dašesu kanel lala ben Zioni or lala škama.
7. Lel pemrešu tšnoro, Safvu tinesu šhod lal, lluš trim pagol lala: lal pašesu lluš šl-dangom.
8. Tuneso lal, tšn lal špabesu šhod lulu, štešni štimu lulu, tšn beppu šf šnom štibu lulu.
PRAXIS.

Tudu vesa.

1. Lat. Safoa, lufوس ftrtelti lala 5humrofi? lufوس 5humali prkefi dhom lal?
   2. Sumalli tinef 5hod Eiv lala, Safoa trim fafesu lelil.
   3. Trimpshaf, lél Safoa tim fop lala, progu lala, ten benre 5f seis lala.
   4. Panu lala panesaf Safoa, ten lelil mrefa lal, bred or lela skama.
   5. Lel prkef ten prabesaf, ten fenprkefai: fas, Safoa shadafo lal.
   6. Lel trim prosesu uvvi valilul begesu lal.
   7. Kamel, prkefo: Safoa lala fafefo lal: fas, lél digesaf ans nuf ftrtelt-
      lali lala funa; lél donefai naffi 5f shimali.
   8. Sëbu tim fof Safoa ten lél tufesu uvvi lala.

Tuda vosa.

1. Lat. Safoa luf 5kamrefi lal, mrefa lal luldan lal panefu: luf nbrefo
   lal, luldan lal 5hiposi; prtefo lal, ten mrefo 5kadu lala.
   2. Lellipagoli fof uvvi, luflesdan lelli 5hadesfu progu lala 5t pogu, po-
   ne fofigu, ten fpmme 5hhibbu.
   3. Sas, lelli pemefo, Safoa tsdefa fimal sham b6lil: Kamel mrefu luldan
   lal panefu lelil.
   4. Pofefo, ten trim kafefo: tbefo fleffy lella ben frunni lella, ten prodefo.
   5. Spsfesu sfagru fof kefu, ten tuefo Kamel.
   6. Shumalli tinef lalil fadefu lalli mafefu fimar ava? Kamel, sfesu go-
      mu 5f mar bila 5gomesu lalli.
   7. Lel fadefu lali sfesu pobu funa 5f fles, lulai lelilli sfesaf, luldan nub ten
      flafnug lella 5mrofe.
   8. Lel prkef, ten prabesu krufai: fas, lél Kamel fuma sfesefi lali sfidesu
      sfbai.

Tudu vesa.

1. Kamel, mrefo trommi lala, tedefo tatu lala.
2. Kamel lala, ten Safoa lala, ten mrefo smpandu lala: fas lal 5kadesu lal.
3. Kamel, lal mʊrefu panu lala dan femdangom; lal fakafusu lal dan femdangom, tan pudefu.

4. Lulfas, lal trim Safva, lul ponefi shimu: tan shimal trim ftidefu dap lal.

5. Trefali trim fɔddapefu bef mʊfɪ lala: lal ponefi kɔfɛllì funa.


7. Sɔm, lal prɔdefu bred fan lala fɔs prittu lala ñama tan lal prof e lal, fakaʃu bɔ; Fanaʃu lala ṣkafa.

8. Kamel, pr Foley lal, fos ibu lala fas stretell lala; bibrefo dądpabo lala bef mar lala.

9. Sas ibu ava trim bred neis lala, shunnu breda lala tim shimu funai; neir lala tim fanfẹpu dogo, nar lala ppefi.

10. Safva, shɔrefo lelli; lelli dedefo fạm tuttu lala: beddeñefo lelli fas kufu lella ñama, fas lelli kɔbefa shom lal.


12. Sas, lal Kamel, tufefi sìmal; ponu lala krumefu lelli ñon ñp.

**Fabula Æsopi 17. Shop Neiteikpɔγgi ton Kanel lalla.**

FAB. 41. *Shop nökpon twn nökprim.*

Nökpon tuneši nökprim spōbēfū śhod lēl śhunu šēf om lēla śham diteš-
ēfī: fas, lēlar dāmeše lēl, lūl figēšu tān tēšēf lēl. Nökpon tirēša, lēl tīm figēša av ava śida, tēn lēl tūdēšu šēb om lēla dinesh nom, śhob šēfē šēf nök-
prim ditośa.

*Quantumvis* nil dubitem quin poffet ingeniosus quilibet debita diligentia
adhibita, ex Dośrina hic tradita (cum praxi) in inferiora hujus Artis pe-
netrare, fi quid tamen alicubi videatur obscurius dicētum, paratus ero (fi
a viris dośis ad hoc rogatus) sēnsum meum plenius et dilucidius explicare;
prācipue in Particularum materia, Strūctūra Orationis, et quarundam For-
mularum loquendi Analyfī Logica. Nec Vereor hic affere, si Juvenes
Praxī hujus Artis diligentem intenderent, majorem inde fruśtum percipie-
rent quam ex leśtione multorum voluminum metaphysicorum; illinc enim
inanem et inutilem (fine praxi) Artis Theoriam, maximo cum studio et la-
bore, hinc vero usum maximo cum compendio acquirent. Prāterea, fi
illis cordi fuerit quibus eft officio Rei Literarīæ prospicere, fumpitus operi
pares facere, Charašer Philosophicus, Typis aptatus, qui rerum ipsarum
immediate fit significativus, parabitur. Singuli autem horum Charašerum
singularum notionum radicalium in tabulis positarum significationi, pauci-
oribus, ut plurimum, lineis et pennae duxibus formabantur, quam singulae
vulgares nostrae litterae alphabeticae; et eadem erit Ars variandi hos Cha-
rašeres, qua Soni hic exhibiti diversificantur. Quantum autem scribendi
Compendium hinc exīfet, judicium penes dośos efto.

FINIS.
DIDASCALOCOPHUS

Or
The Deaf and Dumb mans Tutor,

To which is added

A Discourse of the Nature and number of Double Consonants: Both which Tracts being the first (for what the Author knows) that have been published upon either of the Subjects.

By GEO. DALGARNO.

Printed at the THEATER in OXFORD,
Anno Dom. 1680.
Imprimatur,

TIMO. HALTON

Vice-Cancel Oxon.
THE INTRODUCTION,

WITH A KEY

TO THE FOLLOWING DISCOURSE.

ABOUT twenty years agoe, I published, Latiali but rudi Minerva, a Synopsis of a Philosophical Grammar and Lexicon, thereby shewing a way to remedy the difficulties and absurdities which all languages are clogged with ever since the Confusion, or rather since the Fall, by cutting off all redundancy, rectifying all anomaly, taking away all ambiguity and equivocation, contracting the primitives to a few number, and even those not to be of a meer arbitrary, but a rational institution, enlarging the bounds of derivation and composition, for the cause both of copia and emphasis. In a word, designing not only to remedie the confusion of languages, by giving a much more easie medium of communication than any yet known, but also to cure even Philosopy itself of the disease of Sophisms and Logomachies; as also to provide her with more widdy and manageable instruments of operation, for defining, dividing, demonstrating, &c.

What entertainment this design may meet with in following ages, I am not solicitous to know; but that it has met with so little in this present age, I could give several good reasons, which at present I forbear, intending, if God blesse me with life, health, and leisure, to do this in a more proper place. To me 'tis enough to have the testimony of some of the learned men of this present age,* who are best able to judge in things of this nature, that I have there discovered a secret of art, which by the learned

* Dr. Seth Ward, now Lord Bishop of Sarum, Dr. John Wilkins, late Lord Bishop of Chester, Dr. John Wallis, Dr. William Dillingham.
men of former ages, has been reckoned among the desiderata of learning: to which I may add, that this discovery is made from more rational, easy, and practicable principles, than ever they imagined to be possible.

To this treatise I gave the title of Ars Signorum, which, in compliance with the dialect of the present scene, I may properly enough change to Sematology. This soon after became a fruitful mother of two sister-germans, Didascalocophus, and a Discourse of double Consonants; which having lyen as twins in the womb for many years, at last two severe fits of sickness did midwife them into the world, the latter here in order being senior to the other by the space of full seven years.

That the argument I have in hand is worthy to be treated of, will readily be confessed by all; but how worthily I have handled it must be judged by a few, to whose candor, passing by all apologies, I freely submit. The former treatise of Sematology had the universality of all mankind for its object, but had nothing to recommend it but conveniency; this of Didascalocophus is restrained, at least in its most proper ends and principal effects, to a small number of mankind, but comes recommended with the strongest arguments of charity and necessity. But at present I will diminish the Mother, and betake myself to put the Daughter in a proper dress for the following scene of action.

The soul of man in this state of union depending in its operations upon the bodily organs, when these are vitiated, it must needs follow that the soul itself is so far affected, as at least to be hindred in her external functions. Being, therefore, to treat of a way to cure a weakness that follows humane nature, equally affecting both, I will leave it to the skilful physician to discourse of the causes and cure of the disease, as it concerns the body, and will apply myself to consider of the means to cure the better part of the man, which is the proper work of a grammarian.

And because the subject I have in hand is script ignoviae, and more particularly one branch of it, which, for what I know, has been hitherto, ex professo, treated of by no author, I will first mention all the several ways of interpretation, whereby the soul either doth or may exert her powers; in doing of which I will be obliged to take the liberty of coining some new words of art, which hereafter I will explain.
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It is true that all the senses are intelligencers to the soul, less or more, for though they have their distinct limits, and proper objects assigned them by nature, yet she is able to use their service, even in the most abstracted notions, and arbitrary institution; but, with this difference, that nature seems to have fitted two, hearing and seeing, more particularly for her service; and other two, tasting and smelling, more gross and material, for her dull and heavy comfort, the body; whereas the fifth, of touching, is of a middle nature, and in a manner equally fitted for the service of both, as will appear in the progress of the following discourse. Wherefore being here to speak of the interpretation of arbitrary signs, imperfect by the rational soule, and by it alone, upon the objects of the senses most fitted for that use, I will take notice of the most usual, or at least of the most easy and practicable ways of interpretation which either are, or may be.

Here, reflecting upon Aristotle's τρει εικαστικα, and τρει τοιγιατοι, I expected both his help and authority in analysing the several kinds of interpretation; but finding little or nothing to this purpose in him, neither indeed in any other author of old or new philosophy, as we now distinguish, that I have happened to look in, I was forced to adventure upon the following analysis for clearing my way, and enabling me to discourse the more distinctly on the subject argument.

Interpretation, then, in its largest sense, is an act of cognitive power, expressing the inward motions by outward and sensible signs. Of this there are three kinds, 1. Supernatural, 2. Natural, 3. Artificial or Institutional, to which I give the names of Chrematology, Phyiology, and Sematology. Chrematology is when Almighty God reveals his will by extraordinary means, as dreams, visitations, apparitions, &c., and this, in the division of Arts, falls under Divinity. Phyiology is when the internal passions are expressed by such external signs as have a natural connexion, by way of cause and effect, with the passion they discover, as laughing, weeping, frowning, &c. and this way of interpretation being common to the brute with man, belongs to Natural Philosophy. And because this goes not far enough to serve the rational soul, therefore man has invented Sematology, that is, an art of impressing the conceits of the mind upon sensible and material objects, which have not the least shadow of affinity to the images
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of the things they carry imprest upon them; and this is interpretation, in the strictest and most proper sense, and to reduce this wonderful effect of reason to such rules of art as the nature of it requires, is the proper subject of Ars Signorum, which, according to the commonly received distribution of Arts, is nothing else but a Rational Grammar.

Sematology, then, being a general name for all interpretation by arbitrary signs, or, to follow the most usual terms of art, voces ex instituto, to any of the senses, it may, from the three senses, of hearing, seeing, and touching, whose service the soul doth chiefly make use of in interpretation, be divided into Pneumatology, Schematology, and Haptology.

Pneumatology, or if any think Echology more proper, is interpretation by sounds conveyed thro' the ear; Schematology, by figures, to the eye; and Haptology, by a mutual contact, skin to skin. Pneumatology, again, is divided into Glossology and Aulology; Glossology is a term proper enough for interpretation by the tongue, which is the first and most common organ of interpretation, at least in society, and face to face; for man in these circumstances—effert animi motus interpret[e] Lingue. Aulology, so styled by an easy trope, interprets by a musical instrument, which is fully capable of so much and manifest distinction as the tongue, but not so natural and ready an organ.

Schematology is divided into Typology or Grammatology, and Cheiropo-

logy or Daëyology. By Typology or Grammatology I understand the impressing of permanent figures upon solid and confining matter, which may be done two ways; either by the pen and hand, or by the impress-

ion of stamps prepared for that use, which makes only an accidental dif-

ference between Grammatology and Typology. Cheiropo[logy] or Daëyology, as the words import, is interpretation by the transient motions of the fingers, which, of all other ways of interpretation, comes nearest to that of the tongue. Haptology admitting of no medium, nor distinction of act and object, but being body to body, doth therefore admit of no subdivision. Tho' I will not warrant all these terms from Acyrology, yet I am sure that they will both save me the labour of periphrasis, and also from using words less proper.
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CHAP. I.

A DEAF MAN AS CAPABLE OF UNDERSTANDING AND EXPRESSING A LANGUAGE, AS A BLIND.

THOUGH the soul of man come into the world, Tabula Rasa, yet is it withal, Tabula Cerata, capable, thro study and discipline, of having many fair and goodly images stamped upon it. This capacity is actuated by the ministry of bodily organs. The organs of the body, serving the soul in exerting her powers in this state of union, are four, the eye and the ear, the hand and the tongue; the first pair fitted for taking in, the other for giving out; both the one and the other equally necessary for communication and society.

That the ear and the tongue alone, excluding the other two, can perfect a man in knowledge, excepting of some few things which are the proper objects of seeing, and enable him to express what he knows in vocal signs, or a language spoken, is known by daily experience in blind people. That an equal degree of knowledge is attainable by the eye, and expresseable by the hand in characters, or a language written, is no less evident in the theory, for the reasons following.
All signs, both vocal and written, are equally arbitrary, and ex instituto. Neither is there any reason in nature, why the mind should more easily apprehend the images of things impressed upon sounds than upon characters, when there is nothing either natural or symbolical in the one or the other.

Therefore, that blind people should come sooner to speak and understand, than dumb persons to write and understand, is not because there is any more discerning faculty in the ear than in the eye, nor from the nature of sounds and characters, that the one should have a greater fitness than the other to convey those notions impressed upon them thro' the respective doors of the senses into the soul; neither that pronunciation of articulate words is sooner or more easily learned than written characters; neither yet, that the ear is quicker in perceiving its object than the eye; but it is from other accidental causes and circumstances, which give the eye many considerable advantages, in the matter of communication, above the eye. And yet, even in this particular, the eye wants not its own privileges, which, if rightly used, may perhaps outweigh the advantages on the other side. For illustrating this, I will compare a deaf man with a blind. 1. The blind man goes to school in his cradle: this so early care is not taken of the deaf. 2. The blind man is still learning from all that are about him; for every body he converses with is a tutor, and every word he hears is a lecture to him, by which he either learns what he knew not, or confirms what he had. The deaf man, not being capable of this way of discipline, has no teacher at all; and the necessity may put him upon contriving and using a few signs, yet those have no affinity to the language by which they that are about him do converse amongst themselves, and therefore are of little use to him. 3. The blind man goes through the discipline of language in the best of his time, childhood, and under the best of teachers, women and children: the deaf man is deprived of both these opportunities. 4. The blind man learns his language by the by, and aliudagens; the deaf cannot attain a language without instruction, and the expense of much time and pains. 5. The deaf man is confined to the circumstances of light, distance, posture of body, both in himself, and him he communicates with: the blind man is free from these frightening circumstances.
Lastly, all the advantages the ear has above the eye may be summed up in these two. First, more opportunities of time; secondly, quicker dispatch, or doing more work in less time; both which may be in a great measure remedied by skill and care; by which, if there were a timely application made to deaf persons, I conceive they might be more improved in knowledge, and so their condition be much more happy than that of the blind, which will appear by the following advantages that the deaf man has above the blind.

First, the deaf man has greater advantages of acquiring real knowledge than the blind; because the eye has greater variety of objects than the ear. 2. The deaf man has a greater certainty of that knowledge he attains by the eye, than the blind can have of that he receives by the ear, for, *Pluris est oculatus testis unus, quam auriti decem.* 3. As he has the better of the other in the knowledge of nature, so also he exceeds him much in speaking and reading the language of nature: for besides reading the glory and wisdom of God in the book of the Creation, he is able also to read much of the minds of men in the book of their countenance; which, seconded with the postures, gestures, actions of the whole body; more particularly, the indications of the hands, feet, fingers, and other circumstances, laies open much of their infide to him; and he, by the same dumb eloquence, is able to notify his desires to others, of which way of communication the blind man's condition renders him wholly incapable. So that the one is able to prove himself a man, in any society of mankind, all the world over; the other, take him from the company of his country-men, has little else left him wherewith to difference himself from a brute, but the childish rhetoric of Democritus and Heraclitus. But fourthly, to come closer to our purpose with the comparison; the deaf man learns a language by art, and exercising his rational faculties; the blind man learns by rote, so that he gets a language, and he himself knows not how. There is, therefore, as great difference in the point of language between a deaf and a blind man, supposing both to have made an equal progress, as between one bred in the University, and a clown that knows not a letter. Fifthly, though the blind man have the start of the deaf, yet the deaf man will be too hard for him at the long run; for he, after he has once got a competency of
language, will be able to help himself, and direct his own course in the further pursuit of all real knowledge. On the contrary, the blind man, who in learning a language needed no particular guide, because everybody was his guide, now he is at a stand, and cannot so much as advance one step without one to lead him. Sixthly, the deaf man has this great advantage above the blind, which weighs heavier than all that can be laid in the scales against it, that he is able to write down his notions, and reflect upon them as often as he will. And now the advantage of having much time for study, and doing much work in little time, is as much the deaf man's, as at first setting out it was the blind man's. Seventhly, in the superfection of language the deaf man will sooner be impregnate with a second or third language than the blind, insomuch as one language learned by study and art, is a greater step to facilitate the learning of another, than the mother tongue, which comes by mere use and rote.

CHAP. II.

A DEAF MAN CAPABLE OF AS EARLY INSTRUCTION
IN A LANGUAGE AS A BLIND.

Taking it for granted that deaf people are equal, in the faculties of apprehension and memory, not only to the blind, but even to those that have all their senses; and having formerly shewn that these faculties can as easily receive and retain the images of things, by the convenience of figures thro' the eye, as of sounds thro' the ear, it will follow that the deaf man is not only as capable, but also as soon capable of instruction in letters as the blind man, and if we compare them, as to their intrinsic powers, has the advantage of him too, insomuch as he has a more distinct and perfect perception of external objects than the other. For the blind man has no certain knowledge of things without him, but what he receives from the informa-
tion of the gross sense of feeling, which, tho' it be a sure intelligencer, yet is its intelligence very scanty; for what he receives by the ear is but a second-hand knowledge, depending upon testimony, and the credit of others. So that the advantages I gave the blind man at first setting out, are not in his own faculties, but from extrinisk and adventitious helps.

Therefore I conceive there might be successful addresses made to a dumb child, even in his cradle, when he begins—\textit{risu cognoscere matrem}, if the mother or nurse had but as nimble a hand, as commonly they have a tongue. For instance, I doubt not but the words, \textit{hand, foot, dog, cat, hat,} \&c., written fair, and as often presented to the deaf child's eye, pointing from the words to the things, and \textit{vice versa}, as the blind child hears them spoken, would be known and remembered as soon by the one as the other. And as I think the eye to be as docile as the ear, so neither see I any reason but the hand might be made as tractable an organ as the tongue, and as soon brought to form, if not fair, at least legible characters, as the tongue to imitate and echo back articulate sounds.

Here it may be doubted, whether it were more advisable to train up the deaf child in Typography or Daëtylology. For the first it may be said, that tho' the institution is equally arbitrary in both, and therefore equally easy to the learner; yet writing is permanent, and therefore gives the young scholar time to contemplate, and so makes the deeper impression; whereas, pointing to the fingers is transient, and gone before it can be apprehended. This made me at first incline more to writing, but upon further consideration I judge the other way much more expedient; for, tho' it cannot be denied but the permanency of the characters is in itself an advantage, if well improved, yet transient motions, if often repeated, make as great an impression upon the memory, as fixed and immovable objects. A clear proof of this we have from young ones learning to understand a language from the transient motions of the tongue; and, which is yet more difficult, to imitate the same transient motions, where, neither can the distinctions be so manifest, nor the formation so easy, as in the hand-language: which, as it confirms me, that pointing to the hand would be the better way of teaching, so it makes me think, that
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if closely followed, it might be easier attained by young ones than speaking, insomuch as the motions of the hand are much more easy than those of the tongue.

If here it should be objected, that words written are more distinct, and easy to be apprehended, for, though consisting of several distinct letters, yet, being joined, they pass in this rude discipline for one individual sign, for our scholar is supposed as yet to understand nothing of the distinction of letters; whereas, in pointing to the fingers, the distinct motions to make up a word will be more manifest, and so will be a hindrance to the scholar's weak intention, to apprehend that which is represented by many touches so distinctly, under the notion of one word.

To this I answer: If we compare the action of writing with pointing to the fingers, this is much more simple than that, and therefore less amusing. But secondly, if we compare words written with pointing, this is still not only more simple, and therefore more easily apprehended, but also it is as easy to represent a word as one *compositum* with a continued action of the hand, tho' there be many distinct pointings, as to make one word by an aggregate of many distinct letters. Add to this, that pointing to the hand is capable of more emphasis, for frequent repetition, accompanied with significant gestures, will come near to the way of teaching *viva voce*, which inculcates more than the beholding of a standing object. But here there is need of caution that we follow the conduct of nature, that is, to begin with words most simple and easy; for we see that young children, when they begin to speak, are not able to pronounce long words, nor yet all letters. But here the only care to be taken is to choose short words, for all letters are equally easy. Now, before I proceed, I think it will be very proper to add something of the easiness of the whole task, both to remove prejudices in others, and, more particularly, to encourage the careful mother the more cheerfully to undertake it.

There are many mothers who, to their great praise, do teach their children to read, even almost before they can speak. And yet, I hope, it will appear from the following considerations, that to read and write upon the fingers is much easier to the learner, than to read and write in books, there being many difficulties in the one which are avoided in the other.
For, 1. In reading, fingle letters must be learned, which are very remote, and abstracted from sense, as being but parts of a sign's sign, e.g. H is the fourth part of the word hand, which word written is a sign of the vocal sound; the vocal sound is the immediate sign of the thing itself. 2. Next to this difficulty is the learning to name the same letters in the precise abstracted notion of them, a, b, c, d, &c. without borrowing names to them from other things, contrary to what the first fathers of letters have taught us, as appears by their naming the simple elements Aleph, Beth, Gimel, Daleth, &c. And here, by the by, I cannot but observe, that we Europeans have been so dull scholars as not to take out the lefson; yea our wife masters the Grecians, in this particular, are the greatest dunces of the rest; for others have been truants and taken out no lefson, and they have taken it out false; for they have named them by barbarous and insignificant words corrupted from the Hebrew, which is worse than to name them by their own powers alone. Which hallucination of theirs has a remarkable providence in it; for thereby they have given a convincing proof, and openly confessed, though they neither designed nor owned any such thing, that the doctors of Athens have learned their a b c at the feet of Gamaliel. And here amongst ourselves and neighbouring nations, it is observable, that in this point of discipline our dames are wiser than our doctors; for they find a necessity of bringing home these abstracted notions to young ones' senses, by borrowing names from known and familiar things. But if there were one way of naming the simple elements agreed upon, and this put in all Primers and Hornbooks, it would not only be of good use to children and unskilful dames, but also, the thing being celebrated, would give occasion to ingenious allusions and metaphors, an instance whereof we have in α and ο in the Greek. But to return to our purpose. A third difficulty in reading is true pronunciation of the simple letters. And, 4. joyning them in syllables is yet more difficult, the simple letters oftentimes either quite losing or changing their powers. And, 5. the dividing syllables aright, and joyning them to make words. All which are such difficulties, that one may justly wonder how young ones come to get over them; and how late, and with how great pains they are overcome by some, I appeal to those that know what
belongs to the breeding of youth. Now the deaf child under his mother's tuition, passes securely by all these rocks and quicksands. The distinction of letters, their names, their powers, their order, the giving them true shape or figure, which answers to others pronouncing true, the dividing words into syllables, and of them again making words, to which may be added tone and accent; none of these puzzling niceties hinder his progress. All the teacher has to do, is to go with one continued motion over all the points that make up the word, pointing withal to the things. And at first it will be convenient to initiate the young scholar with words of few letters and a near affinity; as, hat, cat, hog, dog, hand, sand. It is true, after he has past the discipline of the nursery, and comes to learn grammatically, then he must begin to learn to know letters written, by their figure, number, and order. But the rest of the difficulties I have but now mentioned, are proper to the ear, and therefore do not concern him.

And because the advantages the blind man hath over the deaf, are more considerably such in the time of childhood, it cannot be denied but the blind child is in a greater capacity of learning the mother tongue than the deaf; yet so as skill and care might advance the deaf child in a vocabulary of the names of visible objects much above what the other can be supposed to get from the common use of the mother tongue; for the one is still running the same round, in a narrow circle, hearing the same words redundantly; the other might be in a constant progressive motion.

And tho I persuade myself that, some time or other, there may be a mother found who, by her own care, and such directions as I am treating of, will lay a good foundation of language in her deaf child, even in the first stage of his minority; yet, seeing this is like to be but a rara avis, I will advance our blind and deaf scholars to a higher form, and place them under a severer discipline than that of the nursery, which I suppose none will deny them now able to bear; for I will suppose them entred in the seventh year of their age. Together then with this equality of age, let us suppose them every other way equal in their natural parts, both faculties and inclinations, under tutors equally both skilful and careful; and to make their capacities every way equal, the deaf boy to write as fair
and quick a hand as can be expected from that age. In these circumstances, they are both of them to begin to learn a language, the blind boy Latin, the deaf boy his mother's tongue.

The case being thus stated, it is my own opinion that the deaf boy would come to read and write the mother tongue, both much better and sooner than the blind boy to understand and speak the Latin. For reasons of my former thinking, besides what may be gathered from Chap. I., I will here carry on the comparison between the blind boy and the deaf, in some particulars coming closer to our present case.

1. The blind boy has the advantage of knowing a language already, which is a great help to the learning any second language; for the there be no affinity between the words of some languages, yet there is something of a natural and universal grammar runs thro all languages, wherein all agree. This contradicts not what I have said to the deaf man's advantage, Chap. I. Num. 6. Because there the blind and deaf are supposed both to understand the mother tongue, when they begin to learn a second language. Here the deaf is supposed to have no language, and the blind to have the mother tongue, which the by him learned, not by rule, but by rote, yet is it an advantage over him that has none.

2. Besides this notion of natural and universal grammar, which the blind boy hath got with the mother tongue; he not being to learn words for things, but words for words; and it falling out so, that oftentimes there is a great affinity between the words to be learned and the words for which they are to be learned; this makes that he learns with less pains than the deaf boy, who learning words for things, it can never happen that a combination of alphabetical characters making up a word, should have any affinity to, or resemblance of the thing for which it is substituted.

3. Onomatopoeia is a great help to the blind scholar; for example, *grun-nitus, hinnitus, rugitus, ululatus*, &c. are easier to be learned by the blind man than the deaf; because, as they pass in sounds thro the ear, they are of a mixt institution, partly natural, partly arbitrary; but these same words written in characters are of a meer arbitrary institution, whether they be considered with relation to the immediate, or mediate *signatum*. So that our dumb scholar has nothing to trust to but diligence and strength
of memory: reason can do him no service at all, at least so far as either primitive words, or words of an irregular inflexion from them extend, which make up the body of all languages. Neither can fancy help him much, which oftentimes is of great use by working a connexion between a strange and a known word, because as yet we suppose most words to be strangers to him.

The reason of this difference between words spoken and written is, because speaking, being before writing, has more of nature and less of art in it; for all languages guided by the instinct of nature, have more or less of Onomatopoeia in them, and I think our English as much as any; for, beside the naming the voices of animals, and some other musical sounds, which for the most part is done by this figure in other languages, we extend it often to more obscure and indistinct sounds. Take for example, wash, dash, splash, flash, slash, hash, lash, trash, gash, &c. So grumble, tumble, crumble, jumble, fumble, stumble, bumble, mumble, &c., of which kind of words, the learned, and my worthy friend Dr. Wallis has given a good account in his English Grammar. In all these and such like words there is somewhat symbolizing, and analogous to the notions of the things, which makes them both more emphatic and easy to the memory. But in words literally written, and of a more arbitrary institution, there can be nothing symbolical. But to draw something out of this digression to our present stated case: the Onomatopoeia gives our blind scholar some advantage over his deaf schoolfellow, yet is it short of what it would be if he were learning English. This is all that at present comes into my thoughts to say for maintaining the paradox of a blind guide. I will now offer my reasons for giving him the precedence that has two eyes open in his head, which seems to be the more plausible opinion.

1. The deaf man's mind is like clean paper, and therefore takes the impression the more easily, fair and distinct; whereas the scribblings and blottings upon the table of the blind man's memory, as they leave little room for new impressions, so they breed confusion, and make him ready to mistake, when he comes to read them.

2. Words laid up in the deaf boy's memory, are like characters engraven in steel or marble; the blind boy's words are but chalked out, or negro
carbone notata, and therefore easily defaced. For the deaf boy having but
one word for every thing he knows, is therefore obliged to reflect upon it
as often as he has occasion to think or speak of the thing itself; and it is
this frequency of recognizing words, and using them upon all occasions, that
makes a man master of a language: whereas the blind boy having two
words for one thing, the one an intimate and old acquaintance, even a
teneris unguiculis, the other a stranger to him; upon all occasions he loves
to converse with his old crony, and keeps at a distance from the stranger,
unless it be at set times, when force or fear commands his attendance. So
that this consideration alone, specially if it be seconded with the care and
diligence of those that are about him, in forbearing all other signs with
him but letters, may seem to outweigh all that can be said for the blind
boy.

3. The deaf boy can con a lesson by himself, for litera scripta manet; the
blind boy can do nothing without one prompting him, for vox perit.

Lastly, I think none will deny but that it stands with reason, that a
defar scholar must be exact in orthography. But for the blind, I know it
by experience, that it will be a hard matter to make him spell true.

CHAP. III.

OF A DEAF MAN'S CAPACITY TO SPEAK.

That a deaf man may be taught to speak, is no more a doubt to me, than
that a blind man may be taught to write; both which I think not only
possible, but also not very difficult. I will carry on the comparison in se-
veral particulars. 1. Both have the respective organs, the tongue and the
hand, equally entire, and in a capacity to act. 2. Both are equally defi-
tute of their proper guides, the eye and the ear, to direct them in acting;
and therefore, 3. both must be equally obliged to the sense of feeling for
direction.
And yet so magisterial are the senses of hearing and seeing, that the sense of feeling alone may guide the tongue and hand in speaking and writing, after a habit is acquired, yet, for introducing this habit, directions from the eye and ear are necessary. And, which is observable in this point of discipline, the eye and ear seem to act out of their own sphere, and to exchange their stations and powers, for the blind man learns to write by the ear, and the deaf man to speak by the eye; from which to infer that community of senses which some philosophers and physicians speak of, I think would be absurd, the external objects still remaining distinct: but the true inference from this will be, that the soul can exert her powers by the ministry of any of the senses; and therefore when she is deprived of her principal secretaries, the eye and the ear, then she must be contented with the service of her lacqueys and scullions the other senses, which are no less true and faithful to their mistress than the eye and the ear, but not so quick for dispatch.

But to go on with the comparison. 4. It will be hard to teach the deaf man to observe tone, accent, and emphasis in speaking; so will it be as hard to bring the blind man to write a fair hand, or diverse hands; yet the one may speak so as to be understood, and the other write so as what he writes may be read. 5. As there may be more simple, and therefore more easy characters to be written, contrived for the use of the blind man, so may there founds of an easier pronunciation than any in common use, be invented for the use of the deaf. 6. They are equally incapable, the one of singing, the other of flourishing and painting. 7. As the deaf man has this advantage above the blind, that speaking, in common commerce and business, is of more frequent and greater use than writing; so the blind man comes even again with him in this, that there is one way of writing, and that of great use too to the deaf man, which the blind can learn both as soon and to as great a degree of perfection as the deaf, whereas the deaf man cannot learn to speak without much time and pains, and yet can never come to perfection in speaking. This way of writing is by an alphabet upon the fingers. 8. As to any direct tendency of improving either of them with knowledge or dispatch of business and converse in vita communi, I judge them both equally useless, or at least of no
very great use; because I think scarce attainable to that degree of perfection, as to be ready for use upon all occasions. That there may be cases wherein they may be of great use I do not deny.

And of several that offer themselves, I will single out that of a blind master and deaf servant, for stating of which the more clearly, I will premise; 1. That to read and write is a commendation in a servant. 2. It recommends him the more if he be to serve a blind master. And, 3. if his blind master be a man of much business or learning, this enhances his service yet the more. These things premised, let our case be this.

Blind Homer, hearing of an ingenious but deaf slave, called Ἀσόπ, who was trained up in all the fore-mentioned ways of Sematology, and he himself being expert in Daedalogy, he resolved to purchase Ἀσόπ at any rate. The first service he puts him upon, was to write out his Ilias fair, from his own blotted copy; and, because Ἀσόπ could scarce read his hand, he was always present himself, correcting the faults of his pen upon his fingers. And here I leave them for a while till I have resolved another material doubt.

That which is my main design in this Treatise, to teach how to come to understand a language by reading and writing, suggests to me here to resolve this question—How a blind person might communicate with a dumb? The cause of doubting being upon the dumb man's part, I answer—The defect of his tongue must be supplied by a musical instrument, having the letters equally distinguished upon the keys or strings, both to the eye of the dumb, and in the sounds to the ear of the blind; which I take for granted might produce the same effects with oral speech. And here it is observable, that that same action would very properly be both writing and speaking; writing, from the hand of the dumb touching the keys or strings; speaking, to the ears of the blind man, from the sound of the instrument.

After this short interlude, let us bring Homer and Ἀσόπ upon the stage again. The old man was mightily pleased with Ἀσόπ, till, unfortunately, on a certain time, the fluttering of his tongue gave Homer occasion to suspect him of a ly, for which, in a sudden passion, he cuts out his tongue; but afterwards repenting what he had done, resolved not to put him away,
for he considered that he was yet as capable of serving him as ever; and perhaps more, the other waeis of interpretation that he was skilled in being more distinct than Glossology could be in a deaf man. It happened soon after, that Homer had invited some friends to dinner, commanding Æsop to provide the greatest rarities the market did afford. Æsop made a show of great preparation, but set nothing upon the table beside the tip of his own tongue in a large dish; upbraiding his master with his pype, that he did not tear his blotted papers when he could not read them, but had patience till he himself corre&ed them upon his fingers. Homer not enduring this affront before strangers, throws Æsop's pype in the fire. Æsop fearing worse to follow, throws himself at his master's feet, taking him by the hand, and by the rules of Haptology begs his pardon, promising if he would have patience, to make amends for his fault. Homer startled at this, to find both a tongue and a pype in Æsop's fingers, was transported from wrath to fear and admiration, concluding for certain that Æsop was a conjurer, and that he deserved to be thrown in the fire after his pype. Yet resolving once more to try his wit and honesty, and for making satisfaction to his friends who had lost their dinner, he invites them to return to-morrow, charging Æsop to provide the oddest and leanest carion he could find. The night following, Æsop serves his blind master with lex talionis, tongue for tongue, and repeated the same dinner to his friends the next day; excusing the matter, that he had from first to last obeyed his master's commands to the best of his judgment. Homer taking it ill to be so often outwitted by a slave, by Da&ylology begs of his provoked friends to revenge him upon Æsop, by plucking out his eyes; that his condition might not be more comfortable than his own. After this, old age and a fit of sickness deprived Homer of his hearing. This reconciled him again to Æsop; for he judged him the fittest companion he could find, with whom to bemoan his folly and misery. After this, they lived good friends, passing the time in telling old stories; sometimes upon their fingers' ends, and sometimes with hand in hand, traversing the alphabetical Ilias.

This drama being acted according to the rules of art, if there be any certainty in art that the promised effects will follow, is no less true than it seems to be strange. And from this we may learn two things: 1. That
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the hearing and seeing be the principal, yet are they not the only senses of knowledge. 2. That the hand is, or at least is capable of being made, a more serviceable organ of interpretation to the soul than the tongue: for it has access to its mistress's presence by the door of three senses; 1. Of hearing, by Aulology; 2. Of seeing, by both species of Schematology, to wit, Typology and Daëtyology; 3. Of feeling, by Haptology; whereas the tongue can only enter by the door of one sense, and do its message only by one kind of interpretation, Glossology.

CHAP. IV.

OF A DEAF MAN'S CAPACITY TO UNDERSTAND THE SPEECH OF OTHERS.

I come now to the deaf man's capacity of understanding the speech of others. That words might be gathered and read, from the transient motions and configurations of the mouth, if all the several distinctions of letters were no less manifest and apparent to the eye than to the ear from the speaker's face, as readily as from permanent characters upon paper, is not to be doubted: but that all the distinctions that are perceived by the ear in speaking, cannot equally be perceived by the eye, I will prove by an argument, which tho' it be à posteriori, yet I hope it will be of evidence and force sufficient to effect what is thereby intended.

If the same distinctions of letters and words did appear to the eye from the motion of the speaker's mouth, which are discernible to the ear from the articulation of his voice, then it would follow, that the capacity of a deaf man would be equal to that of a dumb, but not deaf, for learning a language, so far at least as to understand it.

But the capacity of a deaf man is not equal to that of a dumb, for learning a language from speaking.

Therefore all the distinctions of letters are not manifest to the deaf man, from the speaker's mouth.
The sequel of the major is, I think, clear from what has been said before; there being nothing in sounds to the ear either natural or symbolical, more than in motion and figures to the eye. And if any should say, that it is not so easy to read transient motions of the lips, even supposing them sufficiently distinct, which must alway be supposed, as permanent characters; to this first, I oppose reading from pointing to a finger alphabet, which is nothing but motion. 2. All reading from whatsoever immovable object, is as properly motion as hearing; for if there be no motion in the object, then it must be in the organ of the eye; which alters not our case, more than the Earth’s motion or rest alters the phenomena of Astronomy.

If here it should be urged, that granting signs to the eye to be as fit for teaching as signs to the ear; and, therefore, that a deaf person must be supposed to be in greater capacity of learning to understand a language spoken, as a blind, when the distinctions to the eye and ear are the same; yet, that the blind man learns to understand a language from hearing others speak, when the deaf man learns not to understand from seeing others speak, is from the advantages the ear hath above the eye.

To this I answer—that all the advantages the ear hath over the eye, will be sufficiently enough with the deaf man’s capacity of learning to understand a language from speaking. It is true here, that the eye is still at the loss of equal opportunities of time with the ear; but the other advantage I gave the ear over the eye, of doing more work in less time, is here quite taken away; and yet the deaf man will still have as much opportunity of time, if there were no other defects, if his nurse and all that are about him be not dumb, as sufficiently to inculcate the common notions of language: for the young people learn a language by hearing others speak, yet the greatest part of what they hear is redundant, and, like rain falling into a full conduit, runs over. So that a deaf man, tho he have not so much opportunity of learning as a blind, yet has he opportunities enough, and to spare, for learning the common notions of language.

Now for the minor, so far as concerns the deaf man, it is known by said experience, that he learns no language from his mother or nurse. And for the dumb person, tho I can bring no instance, yet the case seems to me so clear, that I think nobody doubts of it, and therefore I will not enlarge to prove it.
But tho the deaf man be not able to perceive all the distinctions of letters, neither indeed is it possible for him, the various motions by which some of them are differenced not appearing outwardly, yet if he be ingenuous, I judge that he perceives a great many; and, therefore, I doubt not but deaf persons understand many things, even without teaching, further than what they have from their nurse. Tho here I must add, that they could understand but very little from the motion of the lips, which, when most distinct, must be full of ambiguity and equivocalness to them, without other circumstances concurring. For when dumb people make it appear, that they understand many things that pass in discourse where they are present, children and fools cannot be persuaded but they hear; superstitious and ignorant people think they have a familiar spirit; others, despising the folly of the one, and impiety of the other, do judge that they are able by the eye, as distinctly to receive words from the speaker's mouth, as others by the ear. But the truth is, what they understand is from a concurrence of circumstances, many of which are often as material as the motion of the speaker's lips; such as, his eyes, countenance, time, place, persons, &c.

To determine what or how many distinctions of letters the eye is able to discover in the speaker's face, there can be no man so fit to resolve this doubt as the deaf man. And if there be no mistake in that well known passage of Sir Kenelm Digby, a Spanish deaf Lord hath already resolved it so as to refute and destroy all that I have said. What is there said of him will amount to this—That the eye can perceive all the distinctions of letters, in the speaker's face, which the ear can do in his voice. I let pass that which increaseth the wonder, that this Spanish Lord should be able not only to know strange letters, in strange languages, instantly, but also to be able to imitate them, tho' he had never been taught.

To neglect the testimony of a person both of honor and learning, who was an ear and eye-witness of all he relates, and had nothing to byas him from what he judged to be exact truth, and, which is more, calling to witness to that relation a person much greater than himself, and beyond all exception for veracity, this would not only be disingenuous, but also arrogant. Therefore I will say what seems most probable to me for recon-

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cing that relation to the truth. I will then first suppose, that Sir Kenelm Digby had not much considered this weaknes of human nature, nor of the way to remedy it, and therefore might be the more credulous, for I find nothing of suspicion or caution that he might not be imposed upon, and ready, as we are all in strange things, to magnify this rare and wonderful art, which, 'tis like, he had never seen nor heard of before, and perhaps had even judged such performances impossible. Secondly, I will suppose that the priest, the Lord's tutor, was ambitious to set off his art with all the advantages possible, before so great a personage as the heir of the Crown of England.

These things being supposed, I take it for granted, that the priest has used artifices of leger-de-main in these passages that seem most strange. What these have been, supposing the matter of fact to be true, tho was I not there an eye-witness, yet, without conjuring, I can tell as certainly as if I had been a spectator, or an actor in that scene. 1. His keeping up discourse with others has been done in set forms, to acting of which he has been trained up before hand. 2. For returning any words that came from the mouth of another, this he has been prompted to by his tutor, or any other standing by, with a finger alphabet. 3. As for his echoing back Irish and Welsh words, two things may be said. First, That he might have been taught to sound these guttural letters which occur often in these languages, and were as easy to him as any other letters whatsoever; or, secondly, because it is there said that the priest affirmed that he performed some things which were beyond the rules of his art, I know nothing can be said, but that he might perhaps chance upon the true sound of these letters, or something near them, which the relator thought good to represent, with all his other performances, because indeed wonderful to those that never had seen, or heard of the like, or knew by what art they were performed, to the greatest advantage. As for his returning words whispered at the distance of the breadth of a large room, there is no new wonder in this; for whispering and speaking loud were all one to him: but I suppose that this, as well as other things, has been a set lesson, or the priest did miscare digitis.

I am not ignorant, that many of Sir Kenelm's relations are looked upon
as fabulous and hyperbolical. Well, be it so, and let this be as fabulous as any of them. It is not the esse, but the posse of the story, that I concern my self to maintain. That several passages related there are impossible, and other circumstances very hyperbolical in that sense in which he understands them, I think I have sufficiently proved; and yet, that the whole relation might be true in that sense I have put upon it, I hope I have made no less evident.

CHAP. V.

OF THE MOST EFFECTUAL WAY TO FILL A DEAF MAN'S CAPACITY.

HITHERTO I have been taking measures of the deaf man's capacity. I come now to confer of the way to fill it. And here my design is not to give a methodical system of grammatical rules, but only such general directions whereby an industrious tutor may bring his deaf pupil to the vulgar use and in of a language, that so he may be the more capable of receiving instruction in the and from the rules of grammar, when his judgment is ripe for that study. Or more plainly, I intend to bring the way of teaching a deaf man to read and write, as near as possible to that of teaching young ones to speak and understand their mother-tongue.

I will begin with a secret, containing the whole mystery of the art of instructing deaf persons; that is, I will describe such a powerful engine, as may be able to fill his head as full of the imagery of the world of words of man's making, as it is of the things of this visible world created by Almighty God; which engine shall have one property more, that it shall not fail of success, even supposing both master and scholar to be the next degree to dunces.

Here, methinks, I see the reader smiling at this fortunam Priami, and hear him whispering to himself parturient montes, &c. But I hope, before I have done with my notion, to reconcile him so far to it, as to bring him
to judge that there is something considerable in it; and tho at first he
meet not with all that this hiatus may seem to have promised, yet at last
he may meet with something more than he expected. This powerful and
successful engine is not the tongue of the learned, but the hand of the
diligent. The hand of a diligent tutor will not fail to make a rich
scholar, if copia verborum may deserve the name of riches. Diligence will
be that same virtue in our deaf scholar's tutor, that Demosthenes makes
action to be in his eloquent Orator. Let the deaf child then have for
his nurses, not the nine muses, but the nine magpies; let him be sent
to school, not to μαθησις ὁδοσιας, but to ἀμερκηνης θεωρης.

Diligence, you will say, is powerful in all arts. True it is, yet as a
handmaid; but here I think, that without a catachresis, I may call it the
principal point of art. This, with very few directions from art, will do the
work effectually; all the fine tricks of art, which the wit of man can con-
trive, will be ineffectual without this. The only point of art here is, how
to make an application to your deaf scholar, by the same distinction of
letters and words to his eye, which appear to the ears of others from words
spoken; that is, to know his letters and to write them readily; diligence
will do the rest. For example; let the same words be seen and written
as often by the deaf man, as they have been heard and spoken by the
blind; if their faculties of memory and understanding be equal, the
measure of knowledge also will be equal. But here it will be necessary
that I explain what I mean by diligence.

By diligence I understand two things; 1. That which is properly so
called, both in the master and scholar. This Sir Kenelm Digby calls much
patience and constancy, in the experiment upon the Spanish Lord. 2. Many
other adventitious helps. I summed up the advantages the ear hath above
the eye into these two; 1. Having more opportunities of time; 2. Doing
more work in less time. Here I will shew how diligence, with a few
directions from art, may in a good measure remedy this inequality.

It is a received maxim amongst those who have employed their thoughts
in that successeful enquiry about a perpetual motion—Reconcile time and
strength, and this will produce a perpetual motion. The application is
caryl from what I have said before, comparing the deaf man with the blind.
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Let them have equal time and force of acting, and their proficiency will be equal. That care and diligence both in the general and the particulars following, may remedy this inequality in a great measure, I think no body will doubt. Neither ought this to be any discouragement, that the reconciling time and strength, as to a geometrical equality, is not possible; for it is not here as in the perpetual motion: there, if you fail of a minute, or a dram, all your labour is lost; here nothing is lost, but just so much as you come short of him you compare with. How much this is, we will see by the particulars following.

1. If the deaf scholar could be brought to speak readily, this would lessen the inequality of force by one-half; and if it were possible that he could read the speaker's words from his face, this would make a geometrical equality of force in the eye and ear; so that the only inequality would be then in time, the eye being confined to light, bodily posture, and distance; and out of these circumstances, the deaf and dumb man were perfectly cured. But, because I am distrustful of this cure, for which I have given my reasons, Chap. IV, I will confine myself to reading and writing, most properly so called, as both the more certain and perfect cure.

Here the first piece of diligence must be, frequens exercitatio styli, that is, as I understand it in this place, using the pen and fingers much. If this be so necessary for forming an orator, as Cicero teaches us in his de Oratore, inculcating it with ut sepe jam dixi, who has the use of the two principal organs of eloquence entire, how much more must it here be necessary where the pen must be both pen and tongue. Great care, therefore, must be taken, to keep your scholar close to the practice of writing; for, until he can not only write, but also have got a quick hand, you must not think to make any considerable progress with him. It is true, that it were possible to teach a deaf man to read without teaching him to write, as one may learn to understand a language spoken and not to speak it; but this would be but half a cure, and leave your scholar incapable of society.

And, because the conveniency of writing cannot always be in a readiness, another great help will be to have tabulae delectiles, of stone or black wood hanging up, for expedition, in several convenient places. A third help will be to have some common forms written in those tables, there to
continue, and to be filled up as occasion requires, like Virgil's *Sic vos non vobis*, &c. such as, *Where is? I pray, give me!* *Who? When? What? &c.* These may serve not only for expedition, but by them also your scholar may be taught to vary. Pocket table-books may sometimes be more ready than these. Fourthly, When neither of these is in a readiness, then practice by an alphabet upon the fingers; which, by frequent practice, as it is the readiest, so it may become the quickest way of intercourse and communication with dumb persons. But I shall have occasion to enlarge more on this, Chap. VIII. Fifthly, Another piece of useful care will be, to keep him from any other way of signing, than by letters. Sixthly, Add to this, that his familiar with him be officious in nothing, but by the intercourse of letters, that is, either by Grammatology, or Da&yloology.

If now, lastly, I can make it appear that diligence out-weighs wit in our present case, I hope my former flash will not be thought to have ended in smoke. And this, methinks, is easily understood from obvious and daily instances; do not we see that young ones, tho' of very weak parts for understanding Grammar, yet come as soon, and some of them sooner, to understand and speak a language by use, without art, than those of stronger parts. One boy has gone to school seven years, and yet understands not the common accidents of Grammar; another in the half of that time, is able to expound an author, and resolve all the grammatications that occur, to a tittle: take the same two at play, or in things where there is no occasion to shew their learning, you will often find that the flow boy, for the nimbleness of his tongue, and *copia verborum*, may seem to exceed the other, as far as he doth him in art.

Hence it will seem to follow, that the principal point of art in teaching a flow scholar, is to use no other art but that of diligence; and if so, a second inference will be, that there is none so fit to teach a flow scholar as a flow master; that is, one dunces to teach another. This I know will seem ridiculous and absurd to many, yet I declare, that I am much of this mind in earnest, in our present case, where Grammar is excluded. For an acute man will be impatient, and not able to stoop so much as the other. And to clear this further, I think it will be easily ascertained to, that a prattling nurse is a better tutrix to her foster-child, than the most profoundly learned doctor in the university.
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My last instance, therefore, shall be—Take master and scholar, qualified as before, adding diligence as I have described it, and let a liberal reward be proposed to the master; if the work be not effectually done, let me be the dunce for them both.

If, therefore, this cure may so easily be performed, what a reproach is it to mankind, that so little compassion is shewn to this infirmity of human nature; these wretched impotents being not only neglected in the point of education, like brutes, but also, as if this were not unkindness enough, the laws of men do most inhumanly deprive them of many privileges wherein the comfort of life consists. As for former ages, I confess they are to be excused; for tho', as I have been proving, diligence be the principal point of art, yet was this a secret to them; but in this knowing age, in which proofs have been given both at home and abroad, that this weakness is curable in a good measure; and, if the reasons contained in these papers have any weight, curable even to perfection, so far at least as concerns the better part of the man; that is, these impotents may not only be instructed in the common notions of language, which is the bond of human society, but also from this foundation may be raised the superstructure of all other arts, which are either for use or ornament to human nature: I say then, for us to neglect so worthy and noble an experiment, and so great an object of charity and compassion, were at once to degenerate from the charity of our ancestors, and to make their ignorance preferable to our knowledge.

CHAP. VI.

OF A DEAF MAN'S DICTIONARY.

Tho a diligent inculcating of the common forms of a language, following no other rule or method but that of the nursery, would undoubtedly bring the deaf man to understand and write it so as the vulgar understand and
speak it; yet some directions from art, specially if your scholar be ingenious, will both facilitate the work, and do it much better; that is, it will make him understand the nature of words better, and so prepare him for the study of grammar, as also the nature of things for which he sees words substituted, and so prepare him for the pursuit of other arts. I will, therefore, give a few such directions, whereby the teacher, abstaining from rules and words of art, may be enabled to produce the proper effects of art in his scholar. But first I will resolve two preliminary queries: 1. What language is easiest to be learned? 2. And what language will be the most useful?

For the first, a language of a Philosophical Institution or a Real Character, would be by much the most easy; as being free from all anomaly, equivocalness, redundancy, and unnecessary grammatications; and the whole institution being suited to the nature of things, this verbal knowledge would not only come more easily, but also bring with it much real knowledge.

Secondly, The language of greatest use to be learned, will be that of the place where he lives, and of the people with whom he is to converse. And here with us, the deaf man has several advantages above other nations. First, That our English is freer from anomaly and equivocalness, at least in writing, which is enough for him, than many other languages. Second, It is not so much clogged with inflexions as other languages; and, third, our words are for the most part monosyllables, and therefore more easy to be remembered. I come now to the promised directions.

I will make way for particulars by observing, first, in general, that the way of teaching here, must be something mixt, and as it were middle between the grammatical way of the school, and the more rude discipline of the nursery. The first initiation must be purely grammatical; but when your scholar is got over this difficulty, of knowing and writing his letters readily, then imitate the way of the nursery. Let utile and jucundum, variety and necessity, invite and spur him on, specially if he be young or of a lamar temper.

You must not be too grammatical in teaching till you find his capacity will bear it: he must not be dealt with as school-boy, who are often
punished for not learning what is above their capacity. It is enough for him to understand the word or sentence proposed, without parsiing every word and syllable; for this is all the use of language that not only children but even people of age that are illiterate have; they understand the meaning of what is spoken, but can neither tell how many words, syllables, or letters came from the speaker's mouth. So that the having the vulgar use of a language, and the understanding it grammatically are very different things. And this preposterous way of learning the learned languages, first Grammar and then the language, is the cause of so slow progress in those that apply themselves to the study of them.

The first exercise you must put your scholar upon, is to know his letters written or printed, and upon his fingers, and to write them himself; and when he comes to join, let his copies be of such words as he may be taught to understand; so that at once he may be learning both to write, and understand the meaning of what he writes. When you have got him to write fair, keep him to constant practice, that you may bring him to write a quick hand, which his condition requires.

Let him begin to learn the names of things best known to him, how heterogeneous forever; such as the elements, minerals, plants, animals, parts, utensils, garments, meats, &c. and generally the names of all such corporeal substances, natural or artificial; not only absolute, but relative, as father, brother, master, servant; as also names of offices and professions, as cook, butler, page, groom, taylor, barber, &c.; for all these will be as easily apprehended as the most distinct species of natural bodies. Let his nomenclature be written down fair, and carefully preserved, not only in a book, but on one side of a sheet of paper, that it may be affixed over against his eye in convenient places. And let this his dictionary be sorted three ways: 1. Alphabetically; 2. Following the order of double consonants, both in the beginning and the end of a word; 3. Reducing it to several heads or classes, with respect not to the words but the things, as in Junius' Nomenclator; for every one of these methods will be of good use to him.

After he has got a good stock of these concrete substantives, then proceed to adjectives; namely, sensible qualities, quantity, with some metaphys-
fical notions; which all of them almost admit of proper contraries, which illustrate one another, and therefore will be of great use to the learner. Let him be made to understand adjectives by joyning them to their proper subjects, taken out of his vocabulary of substantives already understood, as hard iron, stone, bone, &c. soft silk, wool, cloth, &c. And sometimes instance the two contraries in that same subject, as iron hot, cold; and thus he will make a further advance to complex notions.

Observe here, that by the help of an almanack and watch, it will be easy to make your scholar understand all the differences and words of that difficult notion of time.

After he has practised sufficiently upon complex notions of substantives and adjectives, let him proceed to words of action, whether bodily or spiritual, which Grammarians call verbs, as break, cut, hold, take, laugh, affirm, deny, desire, love, hate, &c. And thus much shall be enough to have been said of his dictionary, in this rude discipline under which we suppose him as yet to be.

Here I would have it well observed, that tho in applying myself to the deaf man's tutor I have followed something of method, docendi causa, yet I do not advise him to take this course with his scholar; but, as I said before that the names of things best known to him, how heterogeneous forever, were to be first learned, so here I say that there is no regard to be had to the cognition, or grammatical affinity of words. In a word, occasion will be the best mistress of method, till he have made a considerable advance; and then, when his dictionary begins to be numerous, it will be necessary to draw it up in rank and file. Nay further, I am so far from advising to follow any method at first but what is occasional, excepting only the stated and first order of letters in the alphabet, that if your scholar be not very young, you may propose sentences as early to him as single words; especially interrogatives and imperatives, as, Where is your hat? Whose hat is this? Who gave you this apple? Rise up, sit down, give me the cup, shut the door, &c. And these may be easily varied, indicatively, infinitively, affirmatively, negatively, &c.

And yet for all this, I cannot deny but the teacher may, and must contrive some method for himself, even of these things which he has taught,
following occasion and his pupil's capacity, that he may know the better to take the measures of his progress, and to make the best use of occasions offered.

CHAP. VII.

OF A GRAMMAR FOR DEAF PERSONS.

Having dispatcht the deaf man's Dictionary, I come in the next place to speak of his Grammar. I should contradict the principles I have formerly laid down, if I should insist much upon Grammar; neither, indeed, doth our English tongue require or afford much to be paid by him, who would be ambitious to shew himself γραμματικάς. I shall, therefore, only make some few reflexions upon Etymology and Syntax, supposing Orthography to belong to Lexicography, of which already: and for Prosfody, our scholar is no more able to receive its precepts, than a blind man is to judge of colors.

I shall only take notice of five etymological grammatications, and do but name them; for I judge that these and all other points of Grammar are to be deferred, at least as to an accurate explaining of them, until he be fitted for the study of Grammar, in manner as I have said before.

The first is the plural number, for which the rule is but one and easy. Add s to the singular, pen, pens, and the exceptions are not many, which here I pass by. 2. The comparative and superlative degree, almost as easy as the other. They are formed by adding the terminations er and est, or by the auxiliary words, more, most, as hard, harder, hardest, or more hard, most hard. The exceptions are not many. 3. The participle active or neuter in ing, from which I think there is no exception; and the participle passive, which is oftentimes the same with the preter-imperfect tense without an auxiliary word, as, I loved; or the preter-perfect tense with an auxiliary word, as, I have loved: but from this rule are a multitude of
exceptions, which is the greatest irregularity in the English Tongue. 4. The adverb of the manner ends in ly. This also hath its exceptions, but not many. 5. The abstract ending in ness generally.

These things you need not teach your scholar by rule, for a little practice will enable him to make a rule for himself, and to bring the exceptions too under his rule; as we hear outlandish men and children saying often, mans, womans, feet, for men, women, feet.

As for that ambiguity, that almost every concrete substantive in English is used verbally, as pen, hand, foot, &c., this adds much to the copiousness, emphasis, and elegance of the language, and yet gives very little cause of mistake, the construction of the words determining the significance. But the verbal signification of these words being metonymical, it will be best to leave them to their own place. So much for Etymology shall serve in this place: now for Syntax.

The learned languages make two general parts of Syntax, agreement and government; whereas it seems to me, that with them Syntax requires a distribution antecedent to this; to wit, that the Syntax of words is either per se or per aliud, i.e. the grammatical coherence and connexion of words is made by the terminations of the words themselves, or by auxiliary words called particles. But neither the one nor the other of these distributions does our language require or admit of, being freed from all incumbrances of inflexions by genders and cases, except a few pronouns, and, consequentely, from the rules of agreement and government; all our Syntax consisting in the cement of auxiliary particles.

To treat of Syntax then in English, is to shew the use of the particles in forming words into sentences. For to explain these notions separately, were to build castles in the air; and to form sentences without them, were to make ropes of sand.

Here I will not infast upon explaining every single particle, as if I were dealing with a dumb scholar; but remembering that the present address is more to the master than the scholar, I will instance only in some few, which may serve for a clue to guide any ingenious adventurer through the whole labyrinth.

As I would advise the dumb scholar to be often put to practice upon
verbs of bodily action, varying the circumstances by the particles, so will I single out the verb cut, to be the principal verb in the following examples for explaining the particles.

I begin with pronouns, which, according to the notation of the word, are words put for other words. Let, therefore, these things be present, for whose names the pronouns are the provocabula; and then it will be easy to make your scholar understand the use of these pronominal words. I will instance, first, in the demonstratives, I, thou, he, we, ye, they. Let there be fix perfons present, as many more as you will. Write down, I cut, thou cut, he cut, we cut, ye cut, they cut. Let the master take his scholar by him, and place a third person over against him, all of them prepared with a knife, and apple, or stick, &c. Let the master cut first, pointing to the words I cut. 2. Let the scholar cut, the master pointing to the words thou cut. 3. Let the third person cut, pointing to he cut. And for the plural number, let the master and his scholar stand first together, placing two more near them, and two over against them. Then let the master and scholar cut, pointing to we cut; let the two by them cut, pointing to ye cut. 4. Let the two over against them cut, pointing to they cut. The possessives, mine, thine, his, ours, yours, theirs, may be taught after the same manner; my apple, thy apple, his apple, our apple, your apple, their apple, mutatis mutandis. In short, all pronominal words after the same manner; all, cut, none or nobody cut, this boy cut, that boy cut, the same boy cut, another boy cut, &c. Let him practice much upon this and other verbs, till you find that he is able to make these distinctions of himself.

When he can distinguish persons, it will be easy from many examples, cuttest, cuttest, breakest, breaketh, holdest, holdeth, to make him understand, that the second and third person singular are distinguished by termination from the other persons.

For the signs of tenses, do, dost, doth, have, hast, hath, was, wast, were, shall, will, write down, I have cut the pen, I do cut the apple, I will cut the stick; cut accordingly, pointing to your scholar; or write, I have stood, I do stand, I will stand; do accordingly. I have walked, I do stand, I will sit; do accordingly. Do not trouble your scholar with too nice distinctions of words, such as shall and will, did and have; it is enough for him, as yet,
that he understand the use of words in the common forms of speech, as illiterate persons do.

Let him practice much upon the pronouns, and signs of tenses, with verbs of action, adding other circumstances of time, place, manner, &c. and that with all the variety possible, of familiar, plain, easy, most common, and most frequently occurring circumstances.

The copula will be easily understood, because of its frequent use, both affirmatively and negatively; *Fire is hot, water is not hot; Water is cold, fire is not cold.* So in all its inflexions; as, *I am tall, thou art short, he is thick, I am sitting, thou art standing, he is walking.*

The particles or and and, with the adjectives same and diverse, are to be diligently inculcated, as being words of frequent use, and useful for explication, and declaring the sense of other words. *Or,* in the explicative sense of it, coming between words signifying the same thing; *and,* between words signifying diverse things. It may be good to write down many examples of synonymous words and phrases which your scholar understands, joyning them with or, as

<table>
<thead>
<tr>
<th>I stand,</th>
<th>to go,</th>
<th>wide</th>
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<tbody>
<tr>
<td>The same,</td>
<td>or the same,</td>
<td>or the same.</td>
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<tr>
<td>I do stand,</td>
<td>or</td>
<td></td>
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<tr>
<td>or</td>
<td>to walk.</td>
<td></td>
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<tr>
<td>I am standing.</td>
<td></td>
<td>broad,</td>
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So for the copulative and, give such examples as these:

- Hand and diverse, and diverse, and diverse, Sun and
- Foot and diverse, and diverse, and
- Pen and diverse, and diverse, and
- Ink and diverse, and diverse, and
- Moon

But the frequent recurring of these and many such like in common, familiar, and necessary forms of speech, will soon make them to be understood.

As for particles signifying motion, as to, from, thro, by, into, out of; hither, thither, hence, thence, &c. whether prepositions or adverbs; so distance, as, far off, near, at, hard by, close by, &c.; position, as before, behind, above, upon, beneath, about, up, down, beyond, on this side, &c.: their use and meaning is so plain and obvious, that there needs no more but choice of fit examples to make them understood. The table is before your face, the chair is behind your back, the book is upon the table, my hand is above the table,
the nose is between the eyes, the eyes are above the mouth, the mouth is under the eyes, the tongue is in the mouth, to put out the tongue, to rise up, to fit down, go to the door, from the door, come hither, go thither, &c. These and such like words, signifying circumstances perceivable by sense, are as easily apprehended as words signifying bodily substance or sensible quality.

Even the particles of a metaphysical extraction, and more remote from sense, may be easily understood, if the teacher be not too metaphysical in his application. I will mention here only two topicks of this kind of particles; the causes and the comparatives, which are the two principal finewors of discourse. The particles from the causes are diverse, from, of, with, by, wherefore, therefore, because, why, &c. Use examples such as these: This pen was made by the master of a goose-quat, for to write after my copy. Explain why, wherefore, what is the cause, by expostulations and interrogations with your scholar himself or others, and because in answer to these.

Observe here, that many of these particles being very equivocal, it will not be prudence to represent this difficulty all at once, lest it amaze and discourage your scholar. For example, you have made him understand the causal particle with, in such examples as these; to cut with a knife, to write with a pen; do not immediately put him upon the particle of society with, as, go with me; but explain the various use of such particles, as they offer themselves occasionally in practice, and as you find his capacity is able to receive: for, improving of occasions and complying with the scholar’s capacity, will be the master’s greatest commendation. Not but that he may be put upon learning many set forms for exercise of memory, tho’ he understand them not perfectly. But do not put his understanding to the rack, by an undiscerning pressuring upon his apprehensive faculty, notions either simple or complex, which you find he receives not readily. But make a collection of such words, and watch opportunities of explaining them. I can give no better rule for explaining words hard to be understood, than that which Horace has given, in a case not much unlike ours.

_Dixeris egregie, notum si callida verbum_
_Redditorit junctura novum._
Where the principal verb of a sentence is clearly apprehended, it brings great light to other circumstantiating words. So that the skilful choosing of verbs of action, well understood by your scholar, and the like dexterity in placing a hard word which you would have him to understand, amongst other words of circumstance already well understood, in construction with the verb, every word of the sentence will reflect some light upon this dark word.

The second class is of metaph: or perhaps more properly logical, particles, are those that owe their origine to the topick of the comparates; such as, than, much, more, most, less, least, by so much, &c. Explain these also by many fit examples, in which the several degrees of comparison may be demonstrated to the senses—This water is as hot as that; this cheefe, apple, egg, is greater or more great than that; this apple is the greatest or most great of all the apples; by how much this stick, paper, is longer than that, by so much that is broader than this: let the proportion be fitted and measured.

It will be necessary to make a collection of such forms of sentences as he understands, one or two examples of every form, that upon occasion he may have recourse to them as to rules and precedents in the like cases; and, amongst other forms, forget not imperatives and interrogatives, for which he will have early and frequent use. Gather up all the forms of interrogation, when? who? what? where? whose? whence? whither? how long? many? great? &c. Form sentences upon every one of these interrogations in things familiar, and subjoin proper answers; as, Whose book is this? A. Mine, thine, his, thy brother’s, the master’s, &c. When shall we go to bed? A. By and by, at ten o’clock, an hour hence, &c. Imperative forms; I pray give me the book, take up the pen, lay down the paper, sit down, rise up, put on your hat, open the door, shut the door, &c.

For exercise you may find great variety for him; such as, to vary the circumstances proposed, to describe things from their causes, from their contraries, by comparing them with other things, to form a narration of things seen, to write epistles. Let him be put much upon the exercise of memory, and that not only in loose words and incoherent sentences, but let him bestow much time and pains in learning by heart, in the first place, for his lectiones sacrae upon the Lord’s Day and Holy-days, the Lord’s Prayer, the Creed and Ten Commandements, with the Church-Catechism.
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The solemnity and frequency of Divine Service would have good effects upon him, being placed conveniently opposite to the minister, with a book before him, and one to direct him, till custom enable him to direct himself. This would not only excite him to piety and devotion, but in progress of time, he would come both to understand, and have by heart the greatest part of Divine Service. Some other select passages of Scripture might be recommended to him, as the First Chapter of Genesis, the History of our Saviour's Nativity and Sufferings. The most proper books among profane authors for him to practice on, I think, of many, were Aesop's Fables, and some plays where there is much of action.

In the application of all I have said, respect is to be had to the quality of the person to be taught; whether young or old, dull or docile: how to comply with these circumstances, must depend upon the prudence of the teacher. When his progress is so considerable that it may be said of him, he understands the English Tongue tolerably well, he may then be put upon the study of Grammar, which will be the more easy to him, because the course of study he was in before had a mixture of Grammar in it, as I have said. Afterwards, or before if you please, he may be taught Arithmetick and something of Geometry.

CHAP. VIII.

OF AN ALPHABET UPON THE FINGERS.

Because the conveniency of writing cannot always be in readiness, neither yet tho it could, is it so proper a medium of interpretation between persons present face to face, as a hand-language. It will, therefore, be necessary to teach the dumb scholar a finger-alphabet; and this not only of single letters, but also for the greater expedition, of double and triple consonants, with which our English doth abound.
After much search and many changes, I have at last fixt upon a finger or hand-alphabet according to my mind; for I think it cannot be considerably mended, either by myself or any other, without making tinker’s work, for the purposes for which I have intended it; that is, a distinct placing of, and easy pointing to the single letters, with the like distinct and easy abbreviation of double and triple consonants.

I deny not but there may be many more abbreviations than I have provided for, namely, of initial syllables and terminations; but these I
have past by at present, for two reasons. First, I think there will be little need of them, for I doubt not but that with the provision I have made, an habit equal to that in those who write a quick hand, may very near make the hand as ready an interpreter as the tongue. Secondly, If they should be judged needful, I have taken care that with a few rules they may be added, without altering any thing of the institution of this present scheme.

The scheme, I think, is so distinct and plain in itself, that it needs not much explication, at least for the single letters, which are as distinct by their places, as the middle and two extremes of a right line can make them. The rules of practice are two. 1. Touch the places of the vowels with a cross touch with any finger of the right hand. 2. Point to the consonants with the thumb of the right hand. This is all that I think to be needful for explaining the scheme so far as concerns the single letters, and for the double consonants, I have made provision for abbreviating a threefold combination of them. I shall here only give the rules of abbreviation of the several combinations I have made choice of, referring the reader for the reasons of my choice, to the following Treatise of double consonants.

The first combination of double consonants I make provision for, is when $k, l, r, s,$ come in one syllable with other consonants; and that two waies, either before or after another consonant, as in these examples.

1. H. \{ light, the. \ 2. L. \{ salt, tide. \ 3. R. \{ heart, trie. \ 4. S. \{ hast, hats. \}

1. When these four letters are prefixed to other consonants, as in light, salt, heart, hast, the rule is—Point skin to skin with the four fingers of the other hand respectively to the capital letter, which in the present example is T, to which they are prefixed; which by institution designs the double consonants $ht$, $lt$, $rt$, $st$. 2. When the same four letters follow another consonant, as in the, title, trie, hats, then point, as before, to T with nail to skin, which gives $th$, $sl$, $tr$, $ts$.

A second combination of double consonants, worthy of this care of abbreviation because of their frequent use in English, is when the liquids $m, n,$ come before the mutes and semimutes, $b, p, d, t, g, k,$ or $c$; that is,
$m$ before $b$, $p$, and $n$ before $d$, $t$, $g$, $k$, $c$. The rule is—Touch the place of these mutes and semimutes with the first and second finger joined; and this by institution gives the liquid and the respective mute or semimute following, as in lamb, lamp, hand, hunt, anger, ink, France.

The third abbreviation is of trible consonants in the beginning of a word or syllable, where $s$ is alwaies the first; as in schism, skrew, shrine, spread, strong, scrag, sphynx, sostenes, splinter, justle, &c. The rule is—Joyn the thumb to the finger pointing to the other two consonants. And so much for abbreviation of double and trible consonants.

But observe here, that as school-boyes are to learn amavisse before amasse, and as before as before, and to write words at length before they learn short-hand, so let your dumb scholar, and others that would practice Daftyology, first know and practice upon the single letters, before they come to practice upon the rules of abbreviation.

Now, tho this way of short-hand, or abbreviation of words, be distinct, easy, quick, and comprehensive, yet is there another way of practising, which comes nothing short of this in other respects, and in one respect seems to be preferable, that it supposes nothing necessary to be known for practising but the places of the single letters, without making new rules for distinguishing double and trible consonants from the single. The rule is—Point to all the single letters of the double or trible consonant, simul et semel, which will be found to be as easy as poynting by the former institution with one single touch, as will appear in these examples; when, which, the, light, blunt, brand, grant, plaster, spread, strong, &c.

If here it should be objected, that this will breed confusion, leaving the reader doubtful what letter to begin with, to this I answer: 1. For double consonants in the beginning of a syllable, this objection can never be of any force; for there is no English word found wherein their order is inverted, as will appear from the following Treatise of double consonants. 2. For double consonants in the end of a word, so far as concerns the second combination formerly mentioned, there can never be any mistake; for scarce, I think; is there any example occurs wherein their order is inverted, or if there did, then the rule will be in that case—Point to the single letters distinctly. So that the objection is of no force, except
only against the first combination of double consonants, and that only in the end of a syllable; for there are some, but not many examples, where the order is inverted, as, salt, title, hast, hats. But to this it may be answered, that in a continued sentence the sense will easily determine the case, and take away all ambiguity; as, Here lies one hat, there lie two hats. But if you have occasion to distinguish the word hats from hast, then you must point to all the letters distinctly.

And this compendious and expeditious way of Cheirology may be extended further than this abbreviation of double and triple consonants; for they that are masters of a language, and have got a considerable readiness of practicing, by distinct touches of single letters, will find it as easy as it is useful, to express whole syllables and whole words that are monosyllables, specially in words of common use, with one multiplied touch, simul and semel. My meaning by this multiplied touch simul and semel, is not to touch distinctly all the letters of a syllable or word, by the index or any one single finger of the other hand successively, making so many distinct motions from place to place, as there are letters in the syllable, but so to order the matter, that an equal number of the fingers of the other hand may be used for a simultaneous touch to make the word or syllable, according to the number of letters it shall happen to consist of. This way of expressing syllables, and words monosyllables, with one multiplied touch, after a little practice, will be as easy and quick as pointing to one single letter with a single touch; it will be also as distinct as pointing to every letter successively with one finger.

But let it be well observed here, that tho I would have a whole syllable expressed with one single action and motion of the whole hand, yet let not the distinct touches be so simultaneous, but that it may appear where the word begins and where it ends.

Here I think will be a proper place to give a rule how to know when a word is ended, and it is this. Let there be a continued actual touch of more fingers, or one at least, till the word be ended; or if this happen, as it may in some words, to be uneasy, then make a quick motion from the place of the last letter of the word. But this difficulty, after a little practice, will vanish away.
Now, because this discourse may fall into the hands of some that have trifling heads like my own, to whom it will be acceptable to know what other waies of Daętyology I have had under consideration, I will, for satisfying their curiosity and perhaps saving them the expence of vain labour, mention some other waies which I have considered, and after examination rejected.

The first way is to make the figures of the letters upon the hand, which differs only from writing in this, that the one is transient and the other permanent. It is true, that this is more ready upon all occasions than writing; but neither distinct nor quick enough to be taken notice of here.

A second way is the forming of the letters symbolically; as, to make an X by crossing two fingers, a crofs touch upon the end of the thumb for a T, three fingers joyned for M, two fingers joyned for N, &c. This symbolical way I reject, as being defective in two respects; first, it is defective in the point of symbolizing, for it will not be easy with the fingers to reprezent the shapes of all letters. This way of expressing the letters symbolically, is somewhat like the conceit of a symbolical character, and a language of nature, which some have talked much of, but without any foundation in nature, and therefore all attempts of art must be in vain. But secondly, this way is too laborious, and so defective in answering one of the principal ends for which Chirology is desirable, and deserves the name of an art; that is, a quick and ready expression and interpretation of the conceits of the mind, coming as near as possible to that of the tongue.

The third way is to design every single letter by a single touch, which I judge much the better way than either of the other two, as being more simple, distinct, easy, and of quick dispatch. Having, therefore, resolved upon this, that the most proper way to express the simple elements of the alphabet would be by a single touch, it remained that they should be distinguished amongst themselves by their places. And here again, after consideration and tryst, I have rejected several waies of distinguishing the letters by places. First, I provided places on both hands, back and fore, but finding this laborious and intricate, and perceiving that there might be distinction enough found in one hand, I placed the whole alphabet upon
one hand; yet so as to make use of an equal number of places on both sides of the hand. But at last finding that all the necessary distinctions could be provided for on one side of the hand, I fixed upon the institution of the present scheme; which, I think, is done with that consideration and care that, as I said before, it cannot be much improved.

Here I thought to have kept one secret of art to myself, at least till I should see how other things I had discovered should please; but I must confess my own weakness, that in things of this nature I am plenus rima-rum. I know not how considerable this secret will seem to others, but I declare, that I may confess another weakness, that I was much affected with it; for, after a long and tiresome chase, and having pursued my notion, as I thought, to a nil ultra, when I was set down and pleasing myself with my purchase, on a sudden I fancied myself to see an one-handed deaf man coming to me, and as much as I could read in his eyes and countenance, expostulating with me thus: What have you done? Is there no help for me? Shall one eye serve in Schematology, and one ear in Pneumatology; one tongue in Glossology, yea one hand in Typography; and shall not one hand serve in Daedylology? With this fixing my eyes steadfastly on his hand stretched out, I thought with myself that I could discern a mouth and a tongue in his hand; the thumb seemed to represent the tongue, the fingers and the hollow of the hand the lips, teeth, and cavity of the mouth. Upon this I made signs to him to try to follow me, as I pointed to the letters on my own hand, which he did so exactly that the surprise put me in amaze for some time. But when I had overcome my passion, reflecting upon this wonder both of nature and art, I observed that of the twenty-four letters, he pointed to sixteen with his thumb. Thus I dismissed my deaf and lame patient, bidding him be of good courage, and live in hopes of an effectual and speedy cure.

But after he was gone, I began to consider with myself: What! shall I magnify this as a mystery and wonder of nature and art, to find a way to metamorphose a chimera into a man, or to make a black swan white? This will be magnus conatus magnus nugas agere. As I was thus thinking, it happened that I was smoking a pype of tobacco, and having a present occasion to dispatch a speedy message, I was unwilling to let my pype go
out, and so at that present was deprived both of the use of my tongue and one hand; wherefore reflecting upon the lesson which I had lately taught the one-handed deaf man, or shall I rather say, which he taught me, I call a boy to me, whom I had trained up in Da&ylology, and delivered my message to him with one hand. He, staring in my face with a smiling countenance, for I had never spoken to him before that time with one hand, performed the message very readily, and returned me a speedy answer, using the same organ of interpretation, for I surprised him eating an apple, to me which I had done to him. This gave me occasion to think that this point of art had not only one-handed deaf men for its objects, but that there might be many other cases wherein it might be useful to speak with one hand; as to speak to a dumb man riding on horseback, holding the reins with one hand, and with the other asking him, How do you do? or sitting at table, holding the cup with one hand and with the other saying, Sir, my service to you; or, with one hand holding the knife and with the other asking, What will you be pleased to have? &c.

And if any man could be supposed to have that readiness and presence of mind which is said to have been in Julius Caesar, he might at once keep up discourse with three several persons upon several subjects, talking to two with his two hands, and to a third with his tongue. And here, by the by, it is observable, that without any distraction of mind one may speak both to a deaf and blind man at once, expressing the same words by the tongue to the blind man, and by the hand to the deaf.

Nay, further, I declare that as much as I have as yet been able to discover by practice, I judge the way of speaking with one hand preferable to the other of using both, and that in all respects unless it be in this one, that it is not capable of distinction enough for all the necessary abbreviations of double consonants, which perhaps, after a readiness and habit acquired, may not be needful; or if it were, yet I know that one hand is capable of many more distinctions than I have as yet made use of; but at present I think it not tantissime to make use of them, for I foresee, that the conveniency will far exceed the inconveniencies.

Now, tho' the practice of this hand-language be so plain and easy from the following scheme, and the preceding explication of it, that any one
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who can but read, without knowing to write, may become his own teacher; yet, seeing the nature of all skill and cunning deserving the name of an art, is such that something of instruction *viva voce* is, if not necessary, at least useful, so here, something of direction from one well skilful in the practice of this art, either *viva voce*, or, which is the same thing and as emphatick a way of teaching if it were practiced, *dizito demonstrante*, will be of good use to young practitioners.

I will add one help more for enabling young beginners to practice more easily and readily; let a pair of gloves be made, one for the master and another for the scholar, with the letters written upon them in such order as appears in the foregoing scheme. To practice with these, will be easy for any that do but know their letters and can spell; and a short time will so fix the places of the letters in the memory, that the gloves may be thrown away as useless.

Having laid open the whole progress of my thoughts in this discovery of Cheirology, it remains that I make good my promise in the title-page, of shewing that it is useful both in cases of necessity and convenience.

First, then, I think none will deny but that it is necessary for persons deaf or dumb; and therefore I shall spare myself the labour of proving it any other way, than by referring the reader to the series and scope of this whole discourse. But here it will be very proper to add something how it may be made most useful to the deaf man, and in order to this let it be considered: That the nature of Cheirology is such, that it is only useful in society and converses with others; so that, if the deaf man be trained up in this art, and have nobody about him skilful in it but himself, it is of no use to him at all; as, on the contrary, if all people were as ready in this hand-language as he may rationally be supposed to be, then the hand between him and others, would be of the same use that the tongue is to other people amongst themselves. But seeing, according to the received way of training up youth hitherto, by which no care is taken of teaching them Cheirology, he can have none, or very few to converse with him in this way, it will be the concern of the deaf person’s friends, beside the influencing all his familiars to acquaint themselves with this art for his cause, to chuse some fit person to be a constant companion to him, and to be his
interpreter upon all occasions amongst strangers. And, which is yet a more weighty concern, it would be their wisdom to provide a match for the deaf person, man or woman, betimes, that the person they are to match with may be trained up in Cheiromancy, which would add very much to the comfort of their life; they being thereby able to express and communicate their sentiments intelligibly, not only by Dactyloology in the light, but also by Haptology in the dark.

In the second place, I am obliged to shew the general usefulness and convenience of this art to all mankind. The particular cases wherein it may be convenient, are many more than can be expected that I should instance in; I shall therefore mention only three generals; 1. Silence; 2. Secrecy; 3. Pleasure. In cases of necessary silence, it may be useful to inferiors in the presence of great persons, to those that are about sick people, as near relations, nurses, &c. So for secrecy, if people be in company, but not so near as to whisper one another in the ear, it performs the office of whispering, it delivers and receives secret messages, &c. And, lastly, for pleasure; it may be an ingenious and useful divertissement and past-time for young people.

Here it may be objected, that all the convenience will not balance the pains that must be taken in learning this art. This objection puts me in mind of another, and that a very considerable convenience, and therefore I answer—The pains that is taken about learning a hand-language, if it were learned in due time, that is in childhood, would be so far from hindering, that it would contribute much to the child's progress in learning to read, if he were taught both to know his letters, and to spell upon his fingers. This would please the child's fancy, and imprint the letters the sooner upon his memory, having his book always open before his eyes. So that I look upon this as the greatest convenience of Cheiromancy, that it would be of so great use, and learned with so little pains.

And this consideration put me upon thinking of a more adviseable way of training up young ones, than any yet practised; that is, to begin children to know their letters upon an hand-book instead of an horn-book, or at least to have a hand-book upon the backside of their horn-book; for I make no doubt, but before they could come to know the names and figures
of the letters, they would know their places upon the hand, and be able to point to them with the other, or the same hand, as readily as to pronounce them with the tongue.

And who will not acknowledge that it were a thing desirable, and deservedly to be esteemed as a piece of liberal education, to be able to speak as readily with the hand as with the tongue? And, therefore, who would not think it worth the while to train up young children, from their A B C, in Glossology and Cheirology, pari passu? Specially seeing the one is no hinderance but a considerable help to the other, for I may truly say in the poet's words,

*Alterius nam*

*Altera poscit operem res, et conjurat amice.*

I thought, for the use of children, to have given some directions for facilitating the elementary discipline of knowing the letters, spelling, and reading, whereby not only the old way might be made much smoother, but also by one and the same labour, a considerable accession of useful knowledge might be attained by the young scholar, that is, together with reading in books reading on the hand; and, as a necessary appendage of this, writing upon or speaking with, call it which you will, the hand; whereas, writing with the hand, according to the common use of the word, is by itself a distinct and laborious art. But I fear lest some may think that I have already stuft this discourse too much with trifles, and pedantry.
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OF THE NATURE AND NUMBER

OF DOUBLE CONSONANTS.

MUCH hath been said by many learned men, to describe the nature and causes of simple sounds, which are the first elements of speech; as also of diphthongs and triphthongs, if any such be, coalescing of two or three vowels into one syllable; but of the coalition of two or more consonants into one syllable, little or nothing, for what I know, hath been said by any. And yet this composition of consonants deserves as much to be explained, or rather more than the other of vowels, because of its greater variety and use, especially by him who would treat of a Philosophical Language, or a Grammar for deaf persons; so that my first Treatise of Ars Signorum or Sematology, with this second of Didascalocophus, which is a legitimate offspring of that, obliged me to this enquiry.

If the question should be put; whether, in framing of words, it were a more rational institution, that a single consonant and a single vowel should always succeed one another alternately, or that there should be a mixture of syllables allowed, made partly of diphthongs partly of double consonants?
My own judgment in the case is: That both nature and art would make their first choice of an alternate succession of single vowels and consonants, and that their next choice would be, of such compounded vocal sounds as are commonly called diphthongs, and described by Grammarians, and such compounded close sounds as are most natural and of an easy pronunciation; for describing of which this discourse is intended.

But such a language could derive its origine from blinded nature, and not from art, or a Divine institution, is no ways probable; for I conceive that there is now no language upon the face of the earth in common use, but admits of a mixt composition of diphthongs and double consonants. And the more rude and uncivilized the people are, the more frequent this composition is with them, and the sounds the more harsh and unpleasent. That roughness of speech wears out with roughness of manners, and smoothness of the one is a natural consequence of the smoothness of the other, the English Language and Nation is a sufficient proof. And if this be granted, it is argument enough to prove, that nature without art, or some more powerful assistance, would never bring forth a language in which there should be no diphthongs or double consonants; nature, I say, as it is now in its degenerate estate: how she would have decided this question in her primitive integrity and perfection, or rather how she did actually decide it, as we are assured from God's Word she did, cannot be otherwise known to us than by some probable conjectures.

It is generally thought by the learned, that Adam was the author, both by invention and practice, of the Hebrew Tongue, not as we have it now in any of its dialects; yet if be granted, that the Hebrew had for its mother that language which Adam did invent and speak, we may with good reason conclude that, corrupted as it is, it still retains the substance and genius of its mother; there being some indelible characters upon all languages which common accidents cannot deface. For tho' the tract of time from Adam to Moses, was longer than that from Augustus or Alexander the Great to this present age, yet the common accidents which are known to change a language could not be so many and effectual for changing the first language to that which is now called Hebrew, as they have been known to be for changing the pure Greek into that which now is
used by a remnant of the Grecians, and called Modern Greek; or for changing the pure Latin extant in Clasick authors, into that which is now called Italian; which languages, notwithstanding, keep still so manifest signatures of their origine, that it is easy to discern what item they are branches of.

Now, amongst several other defaced reliques of that first and Divine language, remaining not only in the Hebrew but also to be found in many other of the Eastern languages, this seems to be very considerable, that the Hebrew admits of no composition either of vowels or consonants in that same syllable; but all their radical words consist generally of a single consonant and a single vowel, succeeding one another alternately, which cannot well be supposed to be the effect either of degenerate reason or chance.

There are two things more in that ancient language which seem to me unaccountable, without referring them to a supernatural cause. One is, that their radical words consist generally of three consonants, and for the most part are diffyllables; and these radical words, how different soever in their consonants, yet have still the same points, cametz and pathack, which in oral prolation make the same vocal found with נ, which, as it is the first letter of their alphabet, and from them in all other languages, so is it the first vocal found in nature. And that originally all their words were diffyllables, as some conjecture, is not improbable; whereas in all other languages their radicals are generally monofyllables, and I think originally have all been so; yea so far so, that there are many monofyllables found to be composita and decompisita, as the learned Doctor Wallis has ingeniously observed in his English Grammar.

Another thing is, that the Hebrew does often contrac a whole sentence into one word, incorporating not only pronouns, both prefix and suffix, but also prepositions and conjunctions with the radical word. And this compendium did first excite me to do something for improving the art of Short-hand; that drove me before I was aware upon a Real Character; that again, after a little consideration, resolved itself into an Effable language. This at last has carried on my thoughts to consider of a way how a language may be attained by reading and writing, when it cannot be attained by
speakings and hearing. So that this series and chaine of thoughts has for its first link an Hebrew grammation.

I take notice of three things more in the Hebrew, which are consider-able upon the account of a rational institution, which is not to be found in the common usage of other languages; but not so mysterious as the other three which I have already mentioned. The first is, their separating the vowels from the consonants, both by place and character, which has something natural and symbolical in it; for there is something in the structure and composition of the words, analogous to Man, the author of them; the characters of the consonants being of large dimensions and divisible into many parts, represent the gross and material part of man, the body; the vowels being exprest by indivisible pricks or points, do answer to that which is more properly indivisible, the soul. This, together with a more accurate distinction of vowels into long and short, as also a more accurate division of consonants from their physical causes, that is, the organs of formation, tho of late use, according to some later writers, in that most ancient language, yet it shews, at least, how the genius of the tongue is fitted not only to comply with such an institution, but also that from all antiquity there have been some vestigia of that primitive and Divine, or purely rational Sematology, taught by Almighty God or invented by Adam before the Fall, (unless any should have the confidence to affirm, that this, among many other unhappy consequences of the Fall, was one, that it did not only in part deface, but totally wipe out all former impressions, leaving our first parent as the blind heathens would have him, mutum et turpe pocus, that is, having his soul as much tabula rasa as ours is when we come into the world,) which have given occasion to Grammarians of later times to bring that part of Grammar to the present establishment. But, whatever be the decision of that grand controversy about the antiquity of the Hebrew points, the observation I have made here will still be considerable. Wherefore I pass to a second thing considerable, which, without all controversy, is more ancient and of longer standing than some would have the points to be. It is agreed upon all hands, that there are three principal and cardinal vowels, ני, of as ancient a date as the first invention of letters, which, without giving offence to those that are for, or
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advantage to those that are against the antiquity of points, may, sanu sensu, be styled matres lectionis; because all other vowels are but intermediate sounds, and as it were the proles or offspring of these three. Wherefore, without interposing as to the main state of that so momentous question, that which I take notice of here as considerable, is this, that it has been a thing done with great care and judgment, the establishing these three letters for the cardinal vowels or matres lectionis, for they are the three most distinct vocal sounds that are in nature; even as distinct as the two extremes and the middle of any thing that has dimensions can be, all other vowels being but intermediate sounds to, and gradually differing from them. 南省 is a guttural sound, and of all other vowels the most apert; .want is labial, and of vocal sounds the most contracted; ㎂ is palatine, and equally distant from both. And as it is possible that there might be a language copious enough, allowing only the use of three vowels, and excluding double consonants in that same syllable, provided that the radical words were disyllables, which some think to have been the institution of the pure and uncorrupted Hebrew; so would such an institution be much more easy and distinct than any language in being; the intermediate sounds to these three radical vowels being less distinct, and therefore sometimes giving occasion of mistakes.

I have had occasion to mention the third thing considerable in the preceding Treatise of Didascalooophus; to wit, their naming the simple elements of letters by significant words, Aleph, Beth, Gimel, &c. which, without doubt, is as ancient as the use of letters, or at least as Moses: the truth of this the Grecians have confirmed by a very convincing, but withal a very inartificial argument, in naming the letters corruptedly after them, Alpha, Beta, Gamma, &c. as I have noted before.

Tho I have, in Ars Signorum, given such an analysis of simple sounds, both vowels and consonants, as seemed to me most natural and proper upon that occasion, yet I must here repeat what has been said there of the nature and number of simple consonants, otherwise the rules of composition I am to give cannot be understood.

Consonants, then, are first to be divided into close, and semiclose. 1. Close, when the appulse of the organs stops all passage of breath thro
the mouth; and they are in number nine, m, b, p, n, d, t, ng, r, k. This
closure again is threefold; 1. A perfect shutting of the lips, and this pro-
duces m, b, p. 2. The fore part of the tongue with the palate, hence n, d, t.
3. The hinder part of the tongue with the palate, hence ng, r, k. These
nine consonants are capable of another threefold division, upon the account
of a threefold accident which equally happens to the foreaid closure of
the organs respectively. For, 1. If the breath and voice be simul and semel
stopt with the closure of the organs, like the throwing of a stone against a
rock, this produces the three mutes, aP, aT, aK. 2. If, after the closure
of the organs, a conatus of breathing be continued, and the repercussion of
the breath from the passage stopt, making an inward murmuring like the
breaking of a wave against a rock, which is quickly spent and hurst into
silence, the same closure of organs produces the three semimutes, aB, aD,
ar. 3. If, upon the closure of the organs, there be a free passage of breath
and voice thro the nofe, like the founding of an organ-pipe when the key is
touched, this produces a third distinction of sonorous letters from the same
closure, aM, aN, aNG, (by ng I mean that sound which is heard in anger,
hunger, not in danger, hinge,) and these three sounds may be continued after
the closure of the organs as long as one will. I have placed a vowel before
these consonants, because their power appears more distinctly than when
the vowel follows.

Hence I infer, that the number of close consonants is nine, neither more
nor less; not more I say, because I find that some add three more, hm, hn,
hng, calling them mutes, making only this difference between them and
m, n, ng, that the one is uttered vocally, the other whisperingly; but if a
whispering and a vocal breath make distinct letters, there will be more
distinctions of letters than the authors of this opinion seem to approve;
and if this be reason enough to multiply letters, I know not but soft
speaking, and crying about the streets may have the same power. That
certain other distinctions in the forming of these or any other letters, may
be fancied by curious and musical ears, from the modes and degrees of
shutting the organs, the intention and remission of the voice, the tone
being more grave, acute, &c., I readily grant; but how to make more
distinctions from these three closures, plain and easy to be discerned, and
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worthy to be so far taken notice of as to be placed in the alphabet, is a thing I could never reach.

Again, I said no less than nine, because common custom has made one of these a double consonant, writing it with two letters, *ng*, the sound of neither of which is to be heard in pronunciation, but a perfectly distinct simple sound from the power of both, as in *sing, ring, long*, and from all letters whatever. And it is observable, that our English is very unconstant in expressing the power of this letter; sometimes by *ng* in the end of a word, as *sing, hang, long*, where nothing of the sound either of *n* or *g* is heard; sometimes by *n* alone before its brother consonants, *k, g*; before *k* everywhere, as *ink, rank, drunk*; before *g* in the middle of a word, as *longer, hunger*, tho not always so, for in *danger, stranger, &c.* *n* keeps its own power.

If any be so far prejudiced with the use of the Latin, which always expresses the power of this letter by *n*, and other modern languages, let him look a little higher to the Greek, where he will find three things considerable of this letter: 1. That it is no double consonant, but expresses with one single character, *γ*. 2. That it is expressed not by a letter of a distinct tribe, as in the Latin, but by one of its own fraternity, that is, by a letter formed with the same closure of the organs with itself. 3. That it never goes before any other consonant in that same syllable, but those of its own tribe *γ, x, χ, ε*, which is according to the true reason and rules of compounding consonants in the end of a syllable, as I shall make appear by and by. The Romans, finding that it was a sonorous letter, reject *γ* as being a semitune, and substitute for it *n*, agreeing with it formally in that same analogy of sound, but differing from it materially, as being formed by a distinct closure of organs.

Great Vossius may excuse my being so long upon this one letter; for he, after spending a whole chapter upon it, concludes with a professed uncertainty of judgment, whether to make it a single letter, a *sesquilettera*, or a double consonant. I thought once I had been singular in my opinion about it, but afterwards meeting with Doctor Wallis's English Grammar, I perceived that he had given the same account of it long before me.

The semiclose sounds are of two sorts; some of them are formed from
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the whole close sounds and are called aspirates, because they are formed by
a partial opening of the organs, and sending forth the breath thro the
mouth; hence the number of them are fix, f, th, ch, from p, t, k, and r, which,
as in that, gh from the seminutes b, d, g; for there can be no aspirates from
m, n, ng. 2. That nimble instrument of articulate voice, the top of the
tongue, brings forth three more semiclose sounds, l, r, s, and so doubles the
number of letters formed by the other organs. 1. L is formed by a close
appulse of the top of the tongue to the palate, the fides not touching, but
leaving an open passage, which distinguishes it from n, where the appulse
makes a perfect clouise. 2. The appulse is from the fides of the tongue,
the top not touching, but leaving an open passage to force out the breath;
hence is formed the letter s. 3. A repeated or multiplied appulse of the
tongue to the palate, by a quick motion of trepidation which produces r.
S has affinity to the close mutes, p, t, k, and therefore admits of being
raised to a semimute, z, both of which are capable of aspiration, as the
close mutes and semimutes, sk, zh. These seem to me to be all the simple
consonants in nature perfectly distinct, and to be made use of in a Philoso-
phical Language, for which this was first intended. And I think that this
analysis of them from their physical causes is plain and easy, for to pursue
all the minute differences of sounds, as it were endless, so were it useless.

I come now to speak of compounding two or more consonants into one
syllable, and that two waies, either in the beginning or end of it; a thing
well to be considered by him who undertakes to frame a language by art
from the principles of nature, and of no small use in fitting a Grammar
for deaf persons.

That I may proceed the more distinctly in this enquiry, I will begin
with the definition of a syllable, and passing by several other descriptions,
I will keep to that of Priscian and approved by Vossius, as being most full
and apposite to my purpose: Syllabe est vox literalis, quae sub uno accentu et
uno spiritu indistincter profertur. Where I suppose by sub uno accentu, and
uno spiritus, there can be no more than one vowel or diphthong in a syllable,
which, as a terminus communis, unites the extreme consonants on each side,
even as the copula unites the subject and the predicate, making one pro-
position.
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My first rule shall be—To speak properly and in a strict sense, there can be no composition of consonants amongst themselves, either in the beginning or end of a syllable, but what is preternatural and inconsistent with the definition of a syllable. Who does not perceive, that even in the composition of mutes and liquids in the beginning of a syllable, as prat, plot, which of all compositions of consonants is most common and also judged most easy, as not making the preceding vowel long by position, yet I say, even in those it is easy to perceive a distantia terminorum, and that they are united by a rapid spirit, as a terminus communis, and cannot possibly be otherwise, seeing they are formed by distinct closures of the organs; and therefore there must be a transitus from the one to the other, which appears yet much more evident in the end of a syllable, with which kind of composition our English abounds very much, as table, riddle, saddle, little, &c.

It is true, in some compositions of consonants, the transitus not being from organ to organ, but from one degree of vocality to another, as in lamp, hand, ink, the transitus here is so quick, that it may be said to deceive the ears; much like the colours of the rainbow to the eye, as it is in that ingenious description of Arachne’s Web.—Ovid. Lib. 6. Met.

In quo, diversi niteant cum mille colores,
Transitus ipse tandem spectantium lumina fulsit;
Usque adeo quod tangit idem est, tandem ultima distant.

But, passing by the dictates of right reason and art, which certainly have not been followed in the primary institution of any language, unless it be of the Hebrew alone, let us look to use which is the sovereign lawgiver to all languages. And more particularly to the usage of the Greek, which gives laws of Orthography to all the Occidental Languages; and, first, for the compounding of consonants in the beginning of a syllable.

Had the Grecians been as careless of Euphony and polishing their words in the terminations, as they have been in the initial syllables, their language had been as much inferior to some others in Euphony, as now it is esteemed more pleasant and graceful. What more rude founds, uneasy to be pro-
nounced, and harsh to the ear, than ἕλλω, ξαίω, χώπως, ρήως, στόρει, δέρος, βαλλυμα, μυήμα, γαώς, κτιμα, κάκως, θήκαμε, νήματα, &c. What cause to ascribe this to I am uncertain, whether to the rudeness of their language together with others, in its first origin, or to some modish affectation of times and humors, or more particularly to a poetical humor of syncopizing and contracting their words, which seems to me most probable. But this we see is certain, that they have taken to themselves such a liberty of compounding consonants in the beginning of a syllable, that their greatest admirers, the Romans, have forfaken them in this; there scarce being any such double consonants, as any in thefore-mentioned examples in the beginning of a word, in all the Latin Tongue, unless it be in some few words which are manifestly of a Greek origin. They have gone so far, that almost no rule can be formed for their initial syllables, but quidlibet cum quolibet. Howbeit, I will endeavor to reduce the usage of the Greek, in this particular, to some general rules.

First, There is no double consonant to be found in the beginning of a Greek word, but one of them is a lingual; these are, n, d, t, l, r, s, z, th, t, sh, zh. Hence I observe that Vossius goes too far when he bids, in imitation of the Greek, to divide a-gmen, te-gmen, unless he could have produced authority for a short vowel before this position, or a word beginning with gm, neither of which I think can be found.

2. The liquids, commonly so called, l, m, n, r, add ng, never come before other consonants, or one another in the beginning of a word, except μύκαμα.

3. None of the close consonants,

| Labials, | p, b, m, |
| Linguals, | t, d, n, |
| Gutturals, | ng, r, k, |

or their aspirates,

| Labials, | φ, ρ, |
| Linguals, | θ, th, |
| Gutturals, | χ, gh, |

if they be of the same organ, can be compounded with one another; except br as δέρος, sr as πρίνσας. In these negatives, the Latin, and I think other modern languages, do agree with them.
OF CONSONANTS.

For affirmative rules, the first shall be—The liquids $l$, $r$ come frequently after the mutes and semimutes, with their aspirates, as,

$\alpha \lambda \iota$  $\gamma \lambda \rho \omega$
$\tau \rho$  $\gamma \rho \iota$
$\tau \rho \iota$  $\phi \beta \omega$
$\tau \lambda \iota \mu$  $\phi \beta \omega$
$\kappa \rho \iota \mu$  $\phi \rho \iota$
$\kappa \lambda \alpha \nu$  $\phi \iota \omega$
$\beta \lambda \alpha \nu$  $\phi \iota$
$\beta \iota \mu$  $\chi \lambda \mu \omega$
$\beta \lambda \iota \mu$  $\chi \lambda \mu \omega$

The rule is universally true de jure, tho not de facto; or, it is true de generibus singulorum, tho not de singulis generum. Hence, tho there be no $\alpha \lambda \omega$, yet analogy would bear it as well as $\beta \lambda \alpha \nu$ or $\gamma \lambda \rho \omega$. So in Latin, tho there be no words beginning with $\alpha \lambda$, yet $t\lambda \alpha \nu$ would be as analogical as $c\lambda \alpha \nu$ or $p\lambda \alpha \nu$. So in English, $t\lambda \alpha \nu$ were as euphonick as $p\lambda \alpha \nu$, $c\lambda \alpha \nu$.

2. $S$, in the beginning of a word, comes before all kinds of consonants in that same syllable; i.e. it is compounded with $g$enera $s$ingulorum, tho not with $s$ingula $g$enerum.

1. For the mutes, $p$, $t$, $k$, and their aspirates $\phi$, $\delta$, $\kappa$, it is compounded with them all, as, $\sigma \omega$, $\tau \rho \iota \mu$, $\kappa \rho \iota \mu$, $\sigma \rho \iota \mu$, $\sigma \iota \omega$, $\kappa \iota \omega$.

2. The semimutes, $\beta$, $\delta$, $\gamma$, it is only found with $\beta$, as $\beta \iota \omega$, and by the Dorick dialect with $\delta$, as $\chi \mu \alpha \omega$, for $\chi \mu \alpha \omega$.

3. Of the sonorous or nasales, $\mu$, $\gamma$, $\gamma \gamma$, it is found only with $\mu$, as $\mu \iota \omega$. $S$ is not to be found before any of these three consonants in Latin, unless it be in words taken from the Greek; and yet our English abounds with examples both of $s\mu$ and $s\iota$, as $s$mall, $s$mooth, $s$mite, $s$natch, $s$now.

Except from the former rule its two fitter-semiclose linguals, $r$, $l$, before which it never comes in Greek or Latin, tho $s\iota$ frequently in English, as $s$leep, $s$low, and tho $s$ itself come not before $r$, yet its aspirate $s\lambda \rho$ is found with $r$, as $s$hrine, $s$hrewd.

3. $S$, in the beginning of a word, comes after some both of the mutes and semimutes, de facto, and therefore might come after them all, $c$odem $j$ure, $\phi$, $\zeta$, $\xi$, i.e. $p$s, $d$s, $k$s. Here it comes after two mutes, $k$, $p$, and one
feminate, d. The reason in nature were the same for ɓa, ʄa, ʌa, in the
beginning of a syllable; but ʄ, after any other consonant in the beginning
of a syllable,ounds harsh and lays a force upon nature. What could
induce the Grecians to single out these three double consonants, ʄ, ʇ, ʆ,
contracting them into one single character, and placing them in the
alphabet among the simple elements of letters, is not easy to guess. Had
they made a more soft and melting sound than other double consonants,
this might have past for a tolerable reason; but the cause is quite contrary,
for they make a stronger position after a short vowel than many other
double consonants do: or, if frequency of use had been the inducement,
this also had been tolerable; but even in this they must give place to
many other double consonants, unless perhaps it may be thought that the
frequency of ʄ and ʆ, in the future tenses of verbs, might have occasioned
this abbreviation. Vossius guesses at the origin of ʄ, that it has been an
imitation of the Hebrew ʊ. If he had made ʇ and ʆ to be of the same
origin, his conjecture had been by much the more probable, for there is
fully as great reason for these as for that. The affinity of ʆ to ʊ is all one
with ʄ to ʊ, for both of them are compounded of ʄ following a mute.
Again, the affinity of ʇ to ʊ is no less, for tho the one be mute, the other
feminate, yet they belong both to one organ of formation, which the
Hebrews take notice of as the greater affinity; so that if an imitation of
the Hebrew may pass for a probable reason of this grammatication, it is
much more likely that a threefold abbreviation would induce them to this
imitation sooner than a single one, specially considering that ʄ never
follows another consonant in composition in the beginning of a word, but
in these three. I might add, that the Hebrew Grammarians will fearce
allow ʊ to be a double consonant, tho I dare not undertake to defend
them in this.

My next rule shall be for triple consonants in the beginning of a word.
1. There can no word begin with three consonants but where ʄ is one.
This is not only true in Greek and Latin, but I think also in our vulgar
European languages. 2. ʄ never makes a triple consonant in the begin-
ing of a word, but with a mute and liquid following; and this but rarely
in Greek, as ʄέλεω, ʄέραρχος, ʄέρακες; so in Latin, as ʄcribo, ʄpretus, ʄratus, tho
the composition of s, with any either single or double consonant in the
beginning of a word, seems to be of no difficult pronunciation. And now
I come to double and triple consonants in the end of a syllable.

I think our English Tongue, with its mother Saxon, abounds more with
this kind of close or ending of words with double and triple consonants,
than any other common language, which makes us censured by neighbour-
ing nations, by comparing our pronunciation to the barking of dogs; for
our words being for the most part monosyllables, and often ending with a
harsh collison of double and triple consonants, and admitting no apostrophe,
this makes us take the more time, and use the more force to utter them.

1. The most natural and easy composition of consonants, either in the
beginning or ending of a syllable, is that of the mutes and semimutes
following the sonorous letters of their own respective organs of formation,
as in these examples:

mb lamb, dumb, comb,               nt  ant, hint, hunt,
mp lamp, imp, lump,               nng thing, long, dung,
nd hand, blind, round,            ngk think, rank, drunk.

2. The composition of two consonants next for facility to the former, is
when the three semiclose linguals, l, r, s, come before other consonants
in the end of a syllable. Examples in English are obvious; it is true, not of
these three coming before all other letters, yet the reason is the same for
all, the use be not.

3. S, in the end of a word, according to the use of our English, makes
a double consonant after any other letter, unless it be after q, z. Other
double consonants there are in the end of a word, but being very irregular
and of a harsh sound, I pass them by, such as, soft, length, right, apt, &c.

4. For triple consonants in the end of a syllable, there is none found in
any language but where s makes one. I know the Dutch write Handt,
but I suppose they must pronounce either hand or hant, for a mute and
semimute of that same organ are inconsistent sounds. And as for our
strength and length; 1. Tho they be written with four consonants, yet we

2 a
found but two, neither of which can be written in English but with two characters; but, 2dly, I think the most genuine pronunciation of these two words is, as if they were written streth and lenth, according to the Northern dialect.

5. And lastly, allowing two ss in two distinct places, which often happens, there may be, and are, de facto, in English four consonants after a vowel in that famous syllable, as in firsts, thirsts.

This doctrine of double and triple consonants, so far as concerns the ending of words, has but little place in the learned languages; yet examples are found, both in Greek and Latin, even of triple consonants, as ηδροζζ, stirps. Where, observe that there are no words in Greek ending either in double or triple consonants, but where s either virtually or expressly is the last, and but very few in Latin ending in other double consonants; some in nt, as amant, sunt, some few in nc, as hinc, hunc, in st, as est, post.

My last enquiry about double consonants shall be—How many may come together in one syllable? To which I answer—First, If we follow reason and the authority of the ancientest language, there can come no more than two, one before and another after the vowel. 2dly, If we follow the usage of the other two learned languages, Greek and Latin, excluding the letter s, there can be no syllable of above four consonants, two before and two after the vowel. 3dly, Admitting s, which comes both before and after most letters, there may be a syllable of six consonants, three before and three after the vowel. I grant there is no example found, either in Latin or Greek, of above five consonants, yet there are many examples in both of three consonants in the beginning, as σφατις, scribo; so of three in the end, as στιρπς, stirps; whatever is above this, is harsh and barbarous.

I have heard learned men of the Polish nation affirm, that there is a monosyllable of nine letters in that language, the orthography of which I took from the hand of a person of honour of that nation, thus chrzaszech. This word I have often heard pronounced by natives, and have myself been commended by them for my imitation; but to strangers it seems a barbarous sound, and reaches not the expressing of the power of all the letters
OF CONSONANTS.

with which it is written. Voßius affirms as much of the Dutch. The word he instances in is t’strongst. But I am sure if this be allowed for a monosyllable, there may be a monosyllable of eleven letters, according to the analogy both of the Dutch and English; or rather, I may say, that there can be no bounds set to the tongue in this particular. For, first, if t’strongst, why not st’strongst; for it is clear, even from the same instance, that s may come before t in that same syllable. If it be said, that the letter s cannot be repeated thrice, in distinct places of that same syllable—First, I answer by retorting, much less can t be repeated thrice as here; for, laying this one word aside, I think it will be hard either to prove by reason, or to bring another instance out of any language whatever, where a word consisting of three ttt, disjoined from one another by the intervention of other letters, is esteemed a monosyllable. 2dly, The analogy of the English allows of such a monosyllable, as spasms, schisms.

Again, if sistrengst, why not sistrengsts, and so in infinitum. That s after t is confident in the end of a syllable, our English abounds with examples, as tasts, fasts. But here it is observable, that this composition we admit of, s coming both before and after another consonant in the end of a syllable, is very harsh and uneasy, and scarce to be found in any other language. The French make many shifts to avoid the harshness of s, either before or after another consonant, and chiefly in the end of a syllable; if s go before, they leave it out, as in haste, viste; if it come after, they leave out the consonant that goes before it, as in loups, animaux.

Another thing observable of s with its affinis l, when they come alone without the implication of other consonants, they are of an easy and graceful pronunciation. Homer seems to have loved them, as in these:

:\alla\ bu sk\om\e\u2032\a\ ps\om\na\-

---En y\om\a\ bal\om\a\ sk\om.

That the presb should have stript these broken ends of verses of the unnecessary and troublesome luggage of spirits and accents, is neither the compositor nor the corrector’s fault; I am obliged to excuse them and take the fault, if there be any, upon myself, or rather lay it over upon the
author, who, were he alive, he would excuse both me and himself by the
use of the times he lived in; and use we know is the supreme law in all
languages. But if all this do not satisfy the critical Hellenist, then I must
add further, that use in the present case will even dare to appeal to right
reason; for whatever may be said for the cumbersome tackling of spirits
and accents in prose, yet in a verse accents are downright nonsens, unless
it be tollenda ambiguitatis causa in equivocal words.

That all other appendages beside the letters are unnecessary and trou-
blesome, I shall instance only in one word, which is so overgrown with the
ricketts, that the head is much greater than the whole body; for whereas
the letters of the word are but three, the other appendent parts of it are
five, and had it all that swelling furniture about it in the glossology which
it hath in the typology, it would choke one to pronounce it. But he must
have more critical ears than mine, that can perceive five distinctions in ἢπ',
which are not to be heard in our English err. That this is not a
word either made or sought by me, appears by this passage of a common
epigram:

ἐγώ ποτ' ἀδην

ἵππις ὥς ἑλέουσα παρῆδε καὶ γειτνας.

And here I shall take the liberty to go one step further out of my road,
by taking notice that the Grecians have lashed out a little too far, in that
which is thought to be the greatest grace of their language; that is, their
words ending much in vowels and diphthongs, and these frequently making
pure syllables, one, two, or more, without the intervention of a consonant.
One, two, or at most three, one would think were enough for Euphony;
but four, five, or sometimes six in the end of a word, I think is too much,
specially if they make so many syllables: ἀγήγας ἁχε is sounds well; ἀγήγας βιο
is yet more soft and melting; and ἀγήγας βιοκ sounds high and lofty from
the mouth of a poet, and symbolizeth with the more symbolical hemistich
preceding it;

Ἀγήγας βεοκ ἄλαντον ἀγήγας βιοκ.

But βιοκ and by a dialysis βιοκ, is too soft and lushtious. And for σεασ
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and βάρα, I know not what other cenfure to pas on them, but that they are childish and ridiculous traulifms. It is true, that βάρα, in the typology of the word, has its syllables distinct enough, but the best can be said of it will leave them too identical in the Glossology. Again, for ææææ, which is the word of the greatest number of vowels without a consonant, that I have happened to meet with, tho it be manifestly of a Greek origin, yet I know not where to father it upon any Greek author, totidem literis et syllabis; which makes me strange the more to see the grave and manly Roman, who, in his imitation of the effeminate Graeculus, hath with a wonderful judgment, shall I say, or happiness, equally avoided the extremes of too much harshness in the beginning of his words, and too much softness and delicacy in the end of them; yet in this one word to have outdone him in number of vowels, tho not of syllables. Ovid is my author for this. Metamorph. Lib. 4.

Nec tenet AEÆÆ ædææ genetrix pulcherrima Circe.

But to return from this digression to another observation upon the letters l and s. These two letters seem to me to make a great impression upon the body of the French Tongue, as the particles and chiefly the pronouns do in all languages, because of their so frequent use in the vocabula of that language. I have often been pleasantly affected to hear two talking French, when the pronominal words recurred often, such as, ce, cet, c'est, cetui, cetuiici, cetuila, lui, celui, icelui, elle, icelle, celleci, cellece, &c., and many such like descending from the fruitful stock of ca and la; for these words coming from a French mouth, make a pretty soft whispering noise affecting the ear pleasantly. Our own English pronominal words are none of the most graceful pronunciation, chiefly because of the so frequent use of th, as thou, thy, that, the, this, those, their, &c. This makes outlandish men call us blesi, the sound of th never being heard amongst them but by lispers, who pronounce s vitiously by the power of this letter. I will conclude with rectifying an universal mistake of all that have written of Grammar, for want of considering the nature of double consonants. It has past for current amongst all Grammarians, that we are to divide words
in all other languages, following the use of double consonants among the Grecians, as ma-gmus, do-ctus, le-ctus, a-plus, and not mag-nus, doc-tus, lec-tus, ap-tus. Vossius goes yet further, as I have had occasion to mention before, and bids us divide se-gmen a-gmen, tho there be no precedent for this in Greek. One ancient Grammariam goes yet a step further, and bids follow this rule even in compounded words, as o-bruo, o-bliço, which notwithstanding others do except. But Priscian does well refute this author's opinion by this argument, that poets never used these syllables short; so that for the very same reason we must not divide le-ctus, do-ctus, because they are used still long by position.

Tho this reason be convincing enough, yet there is another reason worthy to be mentioned in this place, which also illustrates and confirms what I have said before, that the primitive words of other languages, excepting the Hebrew, are for the most part monosyllables. In all primitive words, I distinguish between radical and servile letters; the radical part of the word, generally both in Greek and Latin, is effable in one syllable, amo, doceo; am and doc are the radical letters, o in the one and eo in the other being serviles, and so changeable in the oblique inflexion of the words; therefore I think it were reasonable, in dividing the word, to distinguish between what is radical and what is servile.

POSTSCRIPT.

Tho I make no question but I have said as much as may enable any person of ordinary capacity, with extraordinary diligence, to become if not a Didascalocephus at least a Hypodidacclus to some more expert Master, yet my main design being not so much to make every Grammatic after a Didascalocephus, as to satisfy learned men that Cophology is none either of the ἱγμος ἀδυνατόν, or ὑπονομέα τον; this has made me the shorter in the practical part. So that any practitioner in this art, not more master of it
OF CONSONANTS.

than myself, must be beholding to me for some more particular directions. Wherefore if any Philocophus should challenge myself to make good the title of my book, let him bring a subject duly qualified, male or female, the younger the better, and he shall find me ready to answer his challenge, either personally or by proxy.

FINIS.
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EDINBURGH: PRINTED BY T. CONSTABLE.
M.DCCC.XXXIV.
NOTE.

SINCE the preceding Volume was circulated, the following interesting communication has been received by the Committee of Management of the Maitland Club, from MM. Guyot, Directors of the Asylum for Deaf and Dumb at Groningen. It affords an important testimony to the merits of Dalgarno, as a practical *Didascalocophist*, and confirms, in a very remarkable manner, Mr. Stewart's high estimate of his enlarged and profound views on the Philosophy of Education.

TO THE DIRECTORS OF THE MAITLAND CLUB
AT GLASGOW.

GRONINGEN, FEBRUARY 2D, 1836.

RIGHT HONOURABLE GENTLEMEN,

We have been very much pleased to be informed by a well elaborated advertisement in the Edinburgh Review, 1835, July, Vol. 61, No. 124, that your learned Society had taken upon
herself the care of furnishing a re-impression of the Works of the very ingenious Scot, George Dalgarne, and we fully do assent to what has been reported there, in order to vindicate his honour, in respect of his Didascalocophus. Placed at the head of the instruction at one of the eldest Institutions for Deaf and Dumb, the number of pupils of which actually amounts to 160, we have been endeavouring very zealously, for many years, to collect all what has been ever written on this matter, and have most fortunately enriched our Philosophical Library with the eldest and most curious Spanish, Italian, English, French, German, Danish and Dutch Works, which treat on Deaf and Dumb men's instruction, and the various editions of those books; but we very readily agree our never having been so agreeably surprised, as when we had the fortune to obtain, some years ago, a very well preserved copy of Dalgarne's Didascalocophus. We have instantly translated it into our language, in order to render it fitter to our Theoretical Lessons, because we considered this work a first master-piece in its species, of which much profit and instruction still may be drawn, in so much that we ourselves had taken a mind to publish it at some time or other, by way of a re-impression, and with a translation added to it in any more generally known tongue. We became very desirous, too, to be informed of the other works written by this Philosophical Genius, as well as to learn some particular on his life; but till yet we have not been successful in it. In the meanwhile we have, in due time, made mention of it to Mr. De Gerando at Paris, author of an eminent philosophical work on the Deaf and Dumb, and to others, with whom we keep a regular correspondence, and have not neglected to fix their attention on this work; but we are sorry for not having obtained any farther re-
ports concerning it. It has also been quoted in an English
translation of De L'Epée's Veritable Maniere &c. London 1801,
Preface of the translation, VII.; likewise in Scagliotti, Cenni
Storici sulle Istituzioni dei Sordo-Muti, Torino, 1823, page 18;
and at last in Curtis, an Essay of the Deaf and Dumb &c.
London, 1829, p. 66, 67; these being the pages (not quoted
by Curtis) 91 and 92 of our original 12mo edition of the Didasc-
calocophus, and we have concluded from thence, that still a copy
of it was to be found in one of the London libraries.

We pay a just and well deserved homage to your endeav-
vours, which do not arise from patriotism only, to be sure, but
undoubtedly, also, from your generous mind to practise charity,
and so to promote human happiness, and more to spread so ines-
timable a Work, which, unfortunately, has been drawn so late
from oblivion, and we desire most ardently to concur to your
benevolent aim, and to place Dalgarno, now honourably reviv-
ing, near that, whom so many have forgotten. We therefore
hope, that you will grant our submissive request to be favoured
with a copy of the re-impressed Works of Dalgarno; the more
because the subject of the other Treatise (on Pasigraphy) has
likewise been treated by other authors on Deaf and Dumb, viz.
by Sicard and Wolke, because of its being in some measure re-
lated to that study.

Depending on your benevolence, we expect to be soon ho-
 nourled with a favourable answer and disposal, and therefore
take the liberty to beseech you to be so kind as to direct it to
the House of Commerce of Mr. N. M. Vink, at Rotterdam, for
Ms. Guyot, at Groningen, who will readily take charge of the
farther expedition, and offer an immediate remittance of all the
requisite expenses as soon as we are informed of them.
We are ready to make you any returns you might desire, and which are in our power to grant, and after having made our excuses for the numerous faults to be found in this our letter, written in a language uncommon to us, we have the honour to be most respectfully,

Your Servants,

C. GUYOT, Dr. in Med.
R. T. GUYOT, Jur. Utr. Dr.
Directors and Instititors of
the Asylum for Deaf and
Dumb at Groningen.

It must be almost unnecessary to add, that the request contained in this letter was readily granted, and that the amiable and philanthropic writers are now in possession of the collected Works of Dalgarno.

EDINBURGH, M.DCCC.XXXVI.