

The Laws of Collision at the Royal Society, 1668-9:
Case Study No.5 of the Taylor/Schuster Model of
'Organizing the Experimental Life at the Early Royal
Society'

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[1] Introduction: The Taylor/Schuster Project: Organizational Dynamics at the
early Royal Society

(864)

*A Summary Account given by Dr. John Wallis,
Of the General Laws of Motion, by way of Letter written by him
to the Publisher, and communicated to the R. Society, No-
vemb. 26. 1663.*

Petis, V. C. ut quæ mex sunt de Motibus æstimandis Principia, paucis
aperire velim. Id autem, si meministi, jam olim factum est, non mo-
do in illo *Opere*, quod ante octo menses *R. Societati* exhibitum, eorum

(867)

Dr. Christopher Wrens

*Theory concerning the same Subject, imparted to the R. So-
ciety Decemb. 17. last, though entertain'd by the Author di-
vers years ago, and verifi'd by many Experiments, made by
Himself and that other excellent Mathematician M. Rook be-
fore the said Society, as is attested by many Worthy Members
of that Illustrious Body.*

Lex Naturæ de Collisione Corporum.

(925)

*A Summary Account
Of the Laws of Motion, communicated by Mr. Christian
Hugens in a Letter to the R. Society, and since printed
in French in the Journal des Scavans of March 18.
1669. ft. n.*

[2] Case 5: The 1668/9 Rules of Collision Project

[1] Explicitly held systemic natural philosophy;

[2] Natural philosophical categories held in a fragmentary or tacit manner;

[3] 'Intermediate level theoretical categories' not derived from the natural philosophical lexicon.

David Wootton

*The Invention of Science:
A New History of the Scientific Revolution*
[Allen Lane/Penguin, 2015]

Chapter 10 'Hypotheses/Theories

[3] Genesis of the Project: October 1668

MECHANICA:
SIVE,
De MOTU,
TRACTATUS GEOMETRICUS.

Authore JOHANNE WALLIS, SS. Th. D.
Geometrix Professore Saviliano in Celeberrima Aca-
demia OXONIENSI; Regali Societatis LONDINI, pro
Scientia Naturali promovenda, Sodali; & REGIÆ
Majestati à Sacris.

PARS PRIMA.

IN QUA,

De Motu Generalia.

De Gravium Descensu, & Motuum Declivitate.

De Libra.

LONDINI,
Typis Gulielmi Godboldi, Impensis Atofi Pitt, ad Insigne
Cervi in vico vulgo vocato Little-Britain.
MDCCLXX.



William Neile 1637-1670

Francis Willughby 1635-1672

William Croone 1633-1684

[4] The Problem of William Neile and other Dissidents

William Neile's Two Rules of Micro-Particle Behaviour

[1] If one micro particle impacts another particle at rest, both move off in the direction and at the speed of the incoming particle.

[2] If two particles collide from opposite directions, regardless of their initial speeds, they come to rest.

Pierre Gassendi 1592 - 1655

Walter Charleton 1619-1707

*Physiologia Epicuro-Gassendo-Charltoniana, or, A Fabrick
of Science Natural, upon the Hypothesis of Atoms
Founded by Epicurus, repaired [by] Petrus Gassendus,
augmented [by] Walter Charleton. London, 1654.*

[5] Pedagogy & Historiography: How not to study
this case: Dana Jalobeanu

Jalobeanu's versions of 'Cartesianism'

[1] Descartes' 'Project for a Mathematical Physics'. A scholar's myth: Descartes' natural philosophizing isn't mathematical: there's not an equation or geometrical proportion in sight. His *Le Monde* and *Principia* are entirely qualitative and discursive.

[2] Some blokes like Wallis, Wren and Huygens doing mechanics in the 1660s. Classical mechanics emergent does not equal 'Cartesianism' of any type—let alone [1] above!

[6] End Game Manoeuvres: May 1669

[7] 'Consensus': A Closer, Technical Look

[8] Contra Shapin & Jalobeanu; Pro Boschiero,
Chalmers, Anstey and Kemeny

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