

Anhang 2: (zur Fußnote 387)

Die Verwendung des Ausdrucks law(s) of motion und synonyme Begriffe in den Briefen von Oldenburg, Huygens, Neile, Wallis und Wren im Zeitraum vom 26.10.1668 bis zum 31.05.1669 (auf der Basis von »The Correspondence of Henry Oldenburg«, edited and translated by A. Rupert Hall & Marie Boas Hall, Madison, Milwaukee, London 1968, Vol. V 1668-1669).

Es handelt sich jeweils um Originalzitate, bei den in Latein verfaßten Briefen ist die von den beiden Halls vorgegebene Übersetzung, die nur im Brief Nr. 1007 abgeändert wurde, in Klammern beigelegt. Besonders aufschlußreich ist der Brief Nr. 1033 von Wallis, der als Mathematiker eine Oldenburg-Vorgabe aufgreift.

Huygens:

(hypotheses) – la Loy de la Nature – loix du Mouvement – proposition – regles du Mouvement – Regles et theoremes.

Neile:

Doctrine concerning motion – hypothesis of motion – law of nature – principles (of motion) – rules – secundum regulas praedictas.

Oldenburg:

La nature et les loix du Mouvement – nature & laws of motion – regles du mouvement – regles et theoremes – rules and axioms – theoremes du mouvement et regles – Theorie du mouvement – theory of motion.

Wallis:

Doctrine of motion – Generales Motus leges – generalia Motus principia – Hugen Hypotheses & Propositions of Motion – hypothesis of motion – Laws of Motion – (physical) principles – Rules of Motion.

Wren: Laws of Motion

Nr. 985 Oldenb. -- Huygens [26.10.1668]:

de faire des Experiences touchant la nature et les loix du Mouvement.

Nr. 991 Oldenb. -- Wren [29.10.1668]:

it was proposed by some, yt there might be made experiments to discover ye nature & laws of motion, as ye foundation of Philosophie and all Philosophical discourse.

Nr. 995 Wren -- Oldenb. [03.11.1668]:

presently looked out those papers of the Experiments that concerned the Lawes of Motion arising from collision of hard bodies.

Nr. 996 Huygens -- Oldenb. [3.11.1668]:

je suis prest a leur en communiquer le contenu, c'est a dire les regles et theoremes, que j'ay trouvez dans toutes les especes du Mouvement, puis qu'ils me promettent de les examiner et verifier par leur experiences.

Nr. 999 Oldenb. -- Wren [06.11.1668]:

& to impart wth wt speed you might, the rules & axioms, you have raised allready from such experiments, as you have formerly tryed.

Nr. 1007 Wallis -- Oldenb. [15.11.1668]:

printed in Phil. Trans, no 43 (11. January 1668/69, pp. 864-66):

quae mea sunt de Motibus aestimandis Principia (eig. Übersetzung: what my principles of motions are as I see it) – Quorum alterum, ex generalibus Motus Principijs, rationem reddit (One of which gives the reason, from the general principles of motion) – Atque hae sunt (quantum Ego judico) Generales Motuum leges; quae, ad casus particulares, Calculo sunt accommodandae (And these, according to my judgment, are the general laws of motion, which are to be adjusted to particular cases by calculation).

Nr. 1013 Oldenb. -- Huygens [18.11.1668]:

(ce que) vous vous aviez declaré prest à leur faire part des regles et theoremes, que vous avez trouvez dans toutes les especes du mouvement;

de (...) faire voir le scheme tout entier, et d'indiquer avec cela les principales Experiences, par vous faites pour establir les dites regles.

Nr. 1016 Wallis -- Oldenb. [19.11.1668]:

I have sent you (...) my hypothesis of motion – What you say of M. Hugins his account he gave of some experiments of motion, is true enough; (...) but it is true also that he (Huygens) gave us no account of any principles by which he did calculate but onely of ye Result – about ye Laws of motion.

Nr. 1032 Wallis -- Oldenb. [03.12.1668]:

There being all ye principles from whence ye result is onely to be a calculation.

Nr. 1033 Wallis -- Oldenb. [05.12.1668]:

This is ye clear account of my thoughts as to those Quare's: (...) consonant to that short synopsis of my Doctrine of Motion which I lately sent you. Of which I have this to adde

in reference to one of your letters in pursuance of it; where you tell mee yt ye *Society in their present disquisitions have rather an Eye to ye Physical causes of Motion, & the Principles thereof, than ye Mathematical Rules of it.* – That ye Hypothesis I sent, is indeed of ye *Physical* Laws of Motion, but *Mathematically* demonstrated. For I do not take ye *Physical & Mathematical Hypothesis* to contradict one another at all. But what is *Physically* performed, is *Mathematically* measured. And there is no other way to determine ye *Physical* Laws of Motion exactly, but by applying ye *Mathematical* measures & proportions to them.

Nr. 1038 Wallis -- Oldenb. [10.12.1668]:

Physical cause of motion – I doubt wee must make yt for a Postulatum; That there is Motion, as well as, That there is Matter. And refer both to ye same Original cause. And, if we allow motion to begin, we must postulate that there is a vis motrix even in resting Bodies.

Nr. 1047 Neile -- Oldenb. [18.12.1668]:

I shall be very glad to see Mr. Hooks hypothesis of motion and I wish Dr. Wren would explain his principles a litle more fully but he is against finding a reason for the experiments of motion (...) and says that the appearances carrie reason enough in themselves as being the law of nature. I think it is the Law of nature that they should appear but not without some causes. – I doe not at present know Dr. Wallises hypothesis of motion.

Nr. 1050 Wallis -- Oldenb. [27.12.1668]

my hypothesis of motion – I was forced to it by ye necessity of a consequence from those principles which I layd down in my first & second chapter.

Nr. 1052 Huygens -- Oldenb. [26.12.1668/05.01.1669]:

j'ay démontrè la premiere proposition – Au reste nous avons fait quantité d'experiences en cette matiere qui confirment tout a fait mes Theoremes.

Nr. 1055 Neile -- Oldenb. [28.12.1668]:

I beleive those principles I have concerning motion may assoon be accomodated to the experiments as any and will the most readily lead to a solution of them in order to which either upon mine or any other principles I should be very glad to have a bare distinct narrative of the experiments of motion whithout any theory or principles mingled with them.

Nr. 1057 Wallis -- Oldenb. [31.12.1668]:

The one (from what-ever cause) is ye principle of ye motion of restitution.

Nr. 1062 Wallis -- Oldenb. [02.01.1669]:

That as to ye businesse of Springyness & Gravity, what they are, & from what Physical principles they proceed – As to Borelli's Hypothesis – And I think Borelli (by his principles) must say it too.

Nr. 1064 Neile -- Oldenb. [02.01.1669]:

These rules I suppose hold in all bodies and at all times as to their small particles – but I can't find any other principles of motion and these seeme to mee to be founded upon reason – which question's I think are necessary to be determined afore any doctrine concerning motion can be fully and perfectly established.

Nr. 1066 Oldenb. -- Huygens [04.01.1669]: Anschreiben, dem beigefügt ist

Wren's Theory of Motion, printed in Phil. Trans., no 43 (11. January 1668/69), 867-68.
Lex Naturae de Collisione Corporum (The Law of Nature in the Collision of Bodies) – Natura observat regulas additionis & subductionis Speciosae (Nature obeys the algebraic rules of addition and subtraction).

Nr. 1072 Oldenb. -- Huygens [11.01.1669]:

ie vous envoiy la Theorie du mouvement, faite par Monsieur Wren.

Nr. 1074 Wallis -- Oldenb. [12.01.1669]:

Mr. Hugen's Hypotheses & Propositions of Motion – hee proceeds from other principles.

Nr. 1079 Oldenb. -- Gregory [19.01.1669]:

We have now obtain'd Monsr Hugen's theory of Motion, in writing, as well as that of Dr. Wallis and Dr. Wren. It would be acceptable to us, and creditable to yrself, if you would take the pains, and examine the Lawes of Motion, given by Des Cartes, (divers ingenious Mathematicians looking upon some of them, as false:) and having done that, that you would declare to us yr meditations upon that important subject.

Nr. 1081 Neile -- Oldenb. [21.01.1669]:

You find all that I have to say as yet of motion is not verye much I aime only at the foundation's of it the superstructure's perchance will require a good deale of time but the principles themselves are short – I wish Dr Wren would have explained his principles of motion a little more to invite ordinary capacities.

Nr. 1083 Neile -- Oldenb. [16. u. 22.01.1669]:

the obscurity of these principles [Anm.: »Presumably this is the document headed 'Mr. Neile's Principles of Philosophy' (...) Neile's theory of motion was produced before the Society in a later Latin version on 29 April 1669«; siehe Nr. 1168a].

Nr. 1089 Huygens -- Oldenb. [27.01.1669/ 06.02.1669]:

Les regles du Mouvement – ou s'il a seulement establi sur les experiences la Loy de la Nature qu'il avance sur ce sujet – Je vous envoiey apres cela les autres theoremes que j'ay trouvez touchant cette mesme matiere.

Nr. 1090 Neile -- Oldenb. [late January 1669]:

I don't find as yet that any of these great philosophers doe any wayes interfere or clash with my Principles so as to disprove them I suppose their experiments are true and that

they come very near giving a demonstration for them but their foundation as I conceive will either be begging of an axiome new (...) and for Dr Wren I think he assumes his axiome a great deale sooner then he need to doe for if it be possible that the nature of motion be really otherwise then it seemes to be by experiment to conclude that the aparence is the reality and that the aparence must not be denied to be really true under pretence that it is an axiome meethinks is not very philosophical – if I found any true hypothesis.

Nr. 1095 Oldenb. -- Huygens [04.02.1669]:

Après avoir lû les theoremes du mouvement (...) et les comparé avec les regles de Monsieur Wren on a trouvé d'abord.

Nr. 1135 Huygens -- Oldenb. [20.03.1669]:

La premiere (lettre) est par la quelle vous m'envoïastes les Transactions ou les Regles de Mrs. Wren et Wallis estoient imprimées – dans les mesmes Transactions que les regles que j'avois communiquées a la Societé Royale – c'estoit veritablement me prevenir dans la publication de ces regles, quoyque vous m'eussiez fait esperer le contraire en me demandant d'entrer en communication avec ces Messieurs sur la matiere du mouvement.

Nr. 1139 Oldenb. -- Huygens [29.03.1669]:

touchant les regles du Mouvement – vostre Theorie – vos papiers de motu Corporum ex mutuo appulsu.

Nr. 1157 Oldenb. -- Huygens [26.04.1669]:

J'ay creu d'estre obligé de vous envoyer une copie des Transactions de ce mois, y parlant de vous e de vos regles du mouvement [*Phil. Trans.*, no. 46 (12.April 1669), 925-28].

Nr. 1167 Neile -- Oldenb. [07.05.1669]:

(business of motion) – I shall be well enough contented if these principles can be found faulty any waie;

dem Brief beigefügt [1168a]: „*William Neile's Hypothesis of Motion*“. In diesem Text, dessen erster Teil auf Hobbes Bezug nimmt (hanc doctrinae partem me libris domini Hobs acceptam referre lubens agnosco), finden sich nachstehend aufgeführte Formulierungen:

secundum regulas praedictas qua quidem particulae modo uniantur modo dividantur ab invicem per motum mox inhibentem mox discutientem (according to the above-stated rules by which the particles are now brought together and now separated again from each other by a motion which first tends to compress them together, then tends to make them fly apart) – hanc esse (qualis hic traditur) naturam motus, evicisse putarem (I might convince that this is the nature of motion as it is treated here) – Si quis error in hoc calculo reperiri contigerit is nihil est necesse ut veritati praedictorum principiorum (If someone shall chance to find a mistake in this calculation, it does not necessarily militate against the truth of the foregoing principles).

Nr. 1173 Wallis -- Oldenb. [10.05.1669]:

with ye Paper inclosed, of Mr. Neiles Hypothesis. His principles & mine be not the same – Which would in a very short time extinguish all motion, were it not releevd by another principle.

Nr. 1174 Neile -- Oldenb. [13.05.1669]:

I am much obliged to Dr Wallis that he has been pleased so farre to consider and weigh those principles concerning motion – for I conceive it is easie for the motion to be continued upon the principles I have alledged.

Nr. 1180 Huygens -- Oldenb. [19.05.1669]:

je suis tres satisfait de la maniere que vous en avez usè en ce qui regarde nos loix du Mouvement – et l’insertion de mes regles dans vostre Journal – que vous feriez imprimer les regles de Mr. Wren – Je ne scay si Mr. Wallis aura pu reduire ses regles au mesme sens des nostres – en cas qu’ils trouvent quelque chose a dire soit dans mes hypotheses soit aux demonstrations que j’en deduis – dans vostre version de ma regle 4^e il y a une faute.

Nr. 1181 Neile -- Oldenb. [20.05.1669]:

but in case the rules I conceive doe not prove to be right, I shall be very glad to be convinced and to be showed other rules more firmly proved concerning the motion of small particles – to have the nature of motion and quiet clearly explained, that is, what effect they will have upon one another, and to have those principles reconciled to the appearances of nature – Dr Wallis is pleased to say that motion by those rules of mine will soon come to be generally killed or stopped.

Nr. 1191 Wallis -- Oldenb. [29.05.1669]:

To Mr Neil’s Postulatum (...) That by his Principles Motion must needs diminish: and its innumerable varieties be reduced to none or much fewer – As to ye note concerning Mr. Hugins, I do not much doubt but that hee will in time be satisfied, that my Rules of Motion are true.

Nr. 1196 Oldenb. -- Huygens [31.05.1669]:

Je ne doubtois nullement, que vous ne seriez bien satisfait de ce qu’on a imprimé ici touchant les Loix du mouvement – Je pensois de vous avoir desia dit en une de mes precedentes, qu’on estoit icy assez generalement persuade de la verité des regles du mouvement, comme vous et Monsieur Wren les aviez conceues et couchées.