

III. *An Explanation of the Rule for the finding of Easter. In a Letter from the Reverend Mr J. Jackman to Dr Hans Sloane, S. R. S.*

HAVING met with several Explanations of the Rule for *Easter* in our *Common-Prayer-Book*, and two publish'd among the *Transactions* of the *Royal Society*, but none right and sufficient; and having undoubtedly collected the true sense of the same, by comparing the said Rule and the Table for *Easter* in the *Common Prayer-Book* together, I have been perswaded to communicate it to you, in order to be inserted (if you think fit) in the next *Philosophical Transactions*, as here follows.

The Rule is thus worded, *viz.*

Easter-day is always the first Sunday after the first full Moon, which happens next after the one and twentieth day of March. And if the full Moon happens upon a Sunday, Easter-day is the Sunday after.

For the right understanding of which it is sufficient to observe,

1. That the full Moon meant is the 14th day of the Moon, according to the Kalendar in the *Common-Prayer-Book* (which may be call'd the Church-Kalendar) counting that day of the Month for the first of the Moon, which hath the Golden Number of the Year collateral to it in the first column of the said Kalendar. And
2. That these words [next after *Mar. 21.*] are meant inclusively, as if it had been said [next after the commencement of *Mar. 21.*] so that if the full Moon happens on *Mar. 21.* the same must be the Paschal full Moon.

Now

Now, in order to prove these Observations are both right, and sufficient for the understanding of the Rule, I shall only suppose (what all Men of Sense and Candour will, and all Maintainers of Rule must, allow) That if they are necessary and sufficient to reconcile the Rule with the authentick Table to find *Easter* (from which Practice never varies) then are they right and sufficient. Which being premised,

1. I prove that the first Observation is necessary to that end: Because, if the Paschal full Moon be any day before or after the 14th of the Moon by the Church-Kalendar, then the Rule and the Table will clash. For 1. If it be any day before, then as often as the said 14th of the Paschal Moon is a *Sunday*, that very day, at latest, must be *Easter-day* by the Rule, as being a *Sunday* after the full Moon therein meant: Whereas by the Table and Practice it is not till the *Sunday* after that. Thus *Sunday, Apr. 1.* this year (1705.) was the 14th day of the Moon by the Church-Kalendar, and therefore must have been *Easter-day* (or after) by the Rule, if the full Moon therein meant had been any day before the said 14th of the Moon, whereas *Easter-day* was *April 3.* by the Table, and accordingly observ'd. And this obliges us not to understand the true full Moon by the full Moon in the Rule, because that happens about four days before the 14th of the Moon by the Church-Kalendar. 2. If the full Moon meant in the Rule be any day after the 14th of the Paschal Moon by the Church-Kalendar, then as often as the said 14th happens to be *Saturday*, and consequently the full Moon meant in the Rule to be the *Sunday* following at soonest (that being the very next day) that *Sunday* cannot be *Easter-day* by the Rule; whereas by the Table and Practice it is. Thus *Saturday, April 4.* 1702. was the 14th day of the Moon by the Church-Kalendar; and therefore if the full Moon meant in the Rule were any day after that, it must have been on *Sunday April 5.* at soonest, consequently *April 12* at soonest must have been *Easter-day* by

by the Rule ; whereas *April 5.* was *Easter-day* by the Table and Practick : And this evinces the mistake of those, who make the 15th day of the Moon to be the Full in the sense of the Rule ; as Dr *Wallis*, *Philos. Transf.* 240. Mr *Wright*, in his *Postscript* to his *Short View of Mr Whiston's Chronology*, &c. and the *Introductio ad Chronologiam* (Reprinted at *Oxford*, A. D. 1704.) p 37.

2. I prove the second Observation necessary to the same end ; because a full Moon in the sense of the Rule, (*viz.* the 14th day of a Moon by the Church-Kalendar) often happens on *March 21.* and in that case the *Sunday* following is always *Easter-day* by the Table and Practice ; whereas it must be a month after by the Rule, unless we understand these words, [next after *March 21.*] as I explain them. And this will be the case next year (1706.) nor doth the proof of this point need the supposition of the foregoing, (tho' that may now be fairly supposed, as being already prov'd.) for, count you the full Moon how you will, *March 22.* can never be *Easter-day* by the Rule, unless *March 21.* may be the Paschal full Moon by the same ; and yet *March 22.* is *Easter-day* by the Table and Practice, as often as the Golden Number is 16, and the Dominical Letter D.

I am aware that this 2d Observation may seem to many forc'd and unnatural ; and that, perhaps, might induce some to count the 15th day of the Moon for the Full in the Rule, and Mr *Thornton*, *Philos. Transf.* 297, to substitute *March 20.* in Leap-years for *March 21.* neither of which *Hypotheses*, however, do any service, all things consider'd. The former indeed would vacate my second Observation, (*March 21.* never being the 15th day of the Moon by the Church-Kalendar) but then it would make the Rule notoriously irreconcilable with the Table and Practice, as hath been already seen. And, as to Mr *Thornton's Hypothesis*, 1. The only colour for it (*viz.* That at the time of the Council of *Nice* the *Vernal Equinox* was *March 20.* in Leap-years, and not *March 21.* as in Common years) is, for any thing that I know, more likely to be false than true, and doth by no

means follow from the Intercalation. 2. If this Colour were true, it were too great a nicety to have been probably regarded by the Church. 3. This *Hypothesis* puts more force upon the words of the Rule than mine. And, lastly, If it were admitted, it would solve the difficulty only in Leap-years, and my second Observation would still remain necessary, because the case happens as well in Common as in Leap-years; whereof we have an Example in the next year (1706.) Nor will my second Observation be much boggled at by those that know and consider the inclusive way of reckoning used by the *Romans*, and from them deriv'd to all the *Latin Churches*, and particularly that of *England*; for 'tis as proper to say [next after *March 21.*] with the meaning I contend for, as to say, *Tertio (ante) Calendas, Nonas vel Idus* in the sense of the *Roman Kalendar*, or, as to say (as our Church doth a little after this Rule for *Easter*) that *Ascension-day* is forty days after *Easter*, intending *Easter-day* itself to be one of those forty. And 'tis observable in this very Rule, that, after it had been said, that *Easter-day* is always the first *Sunday* after the full Moon, &c. 'tis added, that if the full Moon happens on a *Sunday*, *Easter-day* is the *Sunday* after; which had been a gross Tautology, if by the first *Sunday* after the full Moon might not be understood the day of the full Moon itself, when happening to be *Sunday*. And if the *Sunday* of the full Moon may be signified by the first *Sunday* after the full Moon, then the full Moon of *March 21.* may be signified by the full Moon next after *March 21.*

3. I prove that my two Observations are sufficient to reconcile the Rule and the Table; because I my self have drawn up a Table to find *Easter* for ever by the Rule understood according to those Observations, and in the plain and obvious sense in all other respects, and, upon comparing, have found it to agree in every particular with the Table for the same purpose in the Common Prayer Book; and any body else may make the same tryal: which method, if others had taken to examine their Explications of the Rule by, they must have discovered their mistakes.