

Sociability and Newtonianism in Scotland

DERYA TARBUCK

The rise of universities during the Enlightenment period is quite well documented. And with respect to Scotland it has been argued that Scottish universities went under a great institutional transformation. Several chairs in mathematics and medicine were established and in the words of Paul Wood (2003): 'These institutional changes created new pedagogical and career opportunities which were exploited by a phalanx of disciples and associates of Isaac Newton.'¹

So if it is plausibly argued by historians that Newtonianism provided a framework for all the structural changes in how scientific research should be conducted, something else must follow this: a century of organized sociability and innumerable learned societies acted as vehicles for Newton's ideas. However, a look at the earliest intellectual clubs that were established early in the century in Edinburgh poses the question of whether they actually were reactions to the institutionalization of ideas and a reaction to natural philosophy and Newtonian cosmology becoming a canon. This can be investigated through a study of philosophical and literary societies in Edinburgh of the time, which are the trademark features of the Enlightenment's erudite sociability.

Looking at the societies established early in the century, it could well be argued that while academies underwent a Newtonian transformation, the demand for non-institutional spaces to question the philosophical merits of Newtonianism and aspects of natural philosophy increased as well. Scientific figures like Newton and Boyle became fashionable subjects for debate. What comes out of this is that the Scottish eighteenth century was also a platform where all possible components of the intellectual debate were challenged and utilized. It would have been a natural result for the strength and the comprehensive nature of Newtonianism to have come under scrutiny at all levels, not only by the strictly religious circles, but also

¹Paul Wood 'Science in the Scottish Enlightenment' in Brodie, Scottish Enlightenment. Pp. 99-107.

by philosophers, by people involved in scientific undertakings, by teachers and practitioners of law, by poets, and by societies that were formed in the eighteenth century enabling all these professions to exchange ideas under the same roof.

An early sign of a need for an extra-institutional sphere came with the establishment of the Rankenian Society. This gathering of mainly University of Edinburgh students was formed in 1716, meeting in Ranken's Inn in Edinburgh. This was one of the first clubs in Edinburgh to provide a platform for the young students to discuss 'religious questions of current interest arising in the works of Samuel Clarke, George Berkeley, Joseph Butler and various deistical writers'.² David Hume, William Wishart, George Turnbull and John Stevenson were among the members of the Club. Lord Kames commented on the nature of their gatherings and stated that 'the only property they had in common was a Bible'.³

It is plausible to argue that these societies necessarily associated themselves with the already existing debate, not only over the authority of the Bible, but also over the implications of Newtonian physics. It is also well known that members of the Rankenian Club engaged in correspondence with George Berkeley, Bishop of Cloyne, whose *Analyst* became one of the notable philosophical anti-Newtonian tracts of the century.

There is not much of a scholarly consensus as to why the Society was formed. The main source of information came from an obituary of Robert Wallace. M. A. Stewart points out that:

Those who extolled the Rankenian Club in after years as a seminal influence on Scottish Culture took their cue from the Wallace obituary, where it was asserted that 'its object was mutual improvement by liberal conversation and rational inquiry' but they can have had little idea of what originally motivated the club's founders.⁴

Although the Rankenian Society does not provide extensive information on the nature of reception of Newtonianism in Edinburgh, it still warns the historian against pigeonholing the organized sociability of the eighteenth century under one philosophical drive, that of natural philosophy.

²On Rankenian Club, See M.A. Stewart, 'Berkeley and the Rankenian club,' *Hermathena* 139 (1985): 25-45. G.E. Davie 'Berkeley's impact on Scottish Philosophers' *Philosophy* 40 (1965), 222-234. Also, see Peter Jones, 'The Scottish Professoriate and the polite academy, 1720-46', in *Wealth and Virtue*, ed. I. Hont and M. Ignatieff (Cambridge, 1983), 89-117.

³Roger L. Emerson "The Philosophical Society of Edinburgh, 1737-1747," *British Journal for the History of Science* 12 (1979): 154-91 on 184, n.17.

⁴MA Stewart on Rankenian Club, p.26.

In a pamphlet published much later in the century by a literary society in Edinburgh, one of the members reminisced about his early years:

I remember well, when at college, that several of my young companions, elated by their little and smatterings of philosophy, talked in a stile, judged with rapidity, and dictated with a boldness, on the most important subjects of which Sir Isaac Newton would have been afraid and ashamed.⁵

Although the tone of this quotation was certainly critical towards the mentioned group of students it demonstrates what happened earlier in the century. These students, as the contemporary observer presented, were engaged in conversations the nature of which went beyond the limits of what was it right to talk about according to institutional standards. A comparison of these young Edinburgh students with Newton involved a certain sense of groundbreaking change in the nature of sociability in the eighteenth century.

The Philosophical Society of Edinburgh, a society at the time well known for its debates on the accuracy, or otherwise, of Newtonian science, was founded in Edinburgh in 1731 as the Society for the Improvement of Medical Knowledge. The Philosophical Society, as Roger Emerson (1979) has pointed out, ‘was expanded in 1737 at the suggestion of Colin Maclaurin into a general society dedicated to the pursuit of natural knowledge and Scottish antiquities but really concerned primarily with Medicine and Newtonian physics’.⁶ For example, at the dinner parties which Forbes and Colin Maclaurin attended together, ‘Newton, Leibniz, ..., and most of the Philosophers were attacked and defended.’⁷ Emerson noted that three of the members of the Edinburgh Philosophical Society in 1739 were highly critical of Newtonian philosophy. These were the lawyers Duncan Forbes of Culloden and Sir John Clerk of Penicuik, and the physician and anatomist George Martine. Emerson further noted that ‘Perhaps the rules assured such men there was not to be a philosophical heterodoxy within the group.’⁸

The only copy of the Proposals for the Regulation of the Society is in the National Library of Scotland, and in that copy, one of the rules runs as follows:

In the meetings of the society, no conversations are to be allowed on religious or political disputes. But this is not to be understood as if these reflections should

⁵*Remarks on Revelation and Infidelity: being the substance of several speeches lately delivered in a private literary Society in Edinburgh* (Edinburgh, 1797).

⁶Emerson, 155.

⁷Quoted in Emerson, 188, n. 127.

⁸Emerson, p.164.

be unacceptable, which enquiries into Nature suggest, concerning the wisdom of its Author, and the beauty of its workmanship.⁹

That enquiries into Nature would suggest reflections that would have religious (and therefore necessarily also political) implications was understood. Any person's agreement not to talk religion or politics directly, while talking philosophy, was bound to be fragile. The explanation that underlies this rule is manifold. Apart from the cherished polite culture of conversation, which encouraged discussion and at all costs avoided dispute, the rule also testifies to the dynamics of the intellectual debate in the period, in the sense that scientific enquiry in the eighteenth-century was not a Religion-free zone, for the Creation was still a Godly one as far as the members of the Society were concerned. Emerson also noted that 'it has not usually been noticed that most of the ministers in the Society wrote something against deism'.¹⁰ Although the publication of the society clearly defined the subject areas that were not going to be covered, such as 'the sciences of theology, morals, and politics',¹¹ it is clear from the information Emerson presents that if the members agreed not to engage in religious disputes directly, it was not because the members had no interest in them. Nor does it seem to be the case that they were unconcerned by the threat of heterodoxy.

Although the Scottish universities had led the way in Europe adopting Newtonian natural philosophy into the curriculum during the latter part of the seventeenth century, Scotland had its share of anti-Newtonians ... Potentially disruptive disagreements thus existed within the Society.¹²

The debate over the accuracy of the New Science and its religious implications was, in many other contexts, a legitimate area of discussion for members of the Society.

⁹ *Proposals for the Regulation of a Society for Improving Arts and Sciences, and particularly Natural Knowledge* (Edinburgh, 1737), p.xxvi.

¹⁰ Emerson, p. 184.

¹¹ Preface of essays and observations

¹² Paul Wood, ed. *Essays and Observations Physical and Literary Read Before a Society in Edinburgh* (Thoemmes, 2002), p. xiii.