How did Newton appreciate Shakespeare? NO.2

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Note: Under this title, I will write an essay composed of 10 chapters in English. This paper contains 3 chapters, from (4) to (6), of them. I will attach synopsis in Japanese to the beginning of my paper. The synopsis covers 3 chapters, only what is in this paper, not the whole 10 chapters.

Synopsis in Japanese (10章のうち、本稿に収録した3章の要約)

ロックとニュートンは聖書を話題にし、信者の妻と結婚すれば信者でないかといったことを手紙でやりとりしている。ニュートンは結婚で急に信仰が変化することは考えず、教育の効果とか、現代的民主的な取扱いをして、今日の外国人同士の結婚を考えるときのような態度だ。それは、ほとんど政治的といえばよく、当時、政治と宗教は深く結びついていた。ホイッグのリーダーであるシャフツベリー伯爵に捧げられたカトリックを馬鹿にする劇作品『教皇ジョン』に『国家的詩人の形成』の中で言及し、その脚注でドブソンはいう。この劇の効果を最小限にくい止めるため、劇を上演した王権一座の競争相手の公爵一座を借り切って、政治的に稳健かつ正統的なガヴァメント改作の『マクベス』を、チャールズ二世のカトリックの情婦ボーツマス公爵夫人は宮廷人に見せた。その頃ニュートンはロバート・フックと手紙で力学論争をしていた。ニュートンがカトリックの陰謀の風評を信じたかどうかは定かでない。ホイッグとプロテスタント支持だったことは明らかで、1685年、あるカトリック教徒に学位を与えさせようとカトリックのジェームズ二世が圧力をかけたのに抗議するケンブリッジ大学全権委員の一一人になっている。

ボーツマス公爵夫人のエピソードからシェイクスピア劇をカトリック貴族の側とするのは早計で、『教皇ジョン』は、ホイッグのリーダー、シャフツベリー伯爵にささげられたものである。第四代シャフツベリー伯爵の最初の夫人スザンナ・アシュリー・クーパーはシェイクスピア婦人クラブのメンバーとしてシェイクスピアを支持した。また大っぱらには右翼と分類できる反ウォルポールの政治的立場からの文化的基準づくり（ドブソン）とされるコブハム子爵に

—119—
よるストの庭園が1730年代に造られシェイクスピアやニュートンの像があることから、シェイクスピアは様々な立場の人々から支持され、ニュートンと対立するとはいえない。

ケンブリッジ・プラトン派、名誉革命支持のホイッグでプロテスタントという立場からいえば反権力的であったニュートンは、革命成功後もひそかにアリウス派で錬金術に疑っていたことは反体制的であった。しかし英国教会首長としての王への臣従の誓いをたてて造幣局長官となりナイトの位を与えられる。

これをマイケル・ホワイトは幼時の心の傷を克服するため「知は力なり」という形で競争に打ち勝ち官僚としての成功を欲する、内面的衝動の方向を時々の大義名分に合わせられるニュートンの資質ゆえと考える。ニュートンはプロテスタントの権力に近づいた典型的な科学者であった。

王政復古まで過去の栄光があっても埋もれていたシェイクスピアが注目されかつ国家的詩人になるのと時期的に步調をあわせることに、一部の人にはしか理解されなかったニュートンの能力が認められ、やがて「国家的科学者」になってゆく。年代を追ってそのことを見ていくと、1680年頃のカトリック排斥の風潮の中で、迫害を避け政治的中立を標榜して多くの劇作家がシェイクスピアの改作に逃げ込んだ（ドブソン）。同時期ニュートンはロバート・フォックと論争し、やがて1689年の革命後ケンブリッジ大学選出の国会議員、1696年造幣局監事（1700年同長官）となり、1727年に亡くなるまで影響力を持続する。同時期、シェイクスピアはニコラス・ロウの編集（1709）アレクサンダー・ボウブの編集（1723-5）による作品の出版が「著者」として復権し、黙って改作されるのではなく、むしろ名前を冠しての改作をされたがることになる。18世紀前半にシェイクスピアもニュートンも「国家的な」詩人、科学者となり、ニュートンの場合、錬金術という国家的タブーに関わった。錬金術が万有引力の法則発見に不可欠だったという説もある。

錬金術は国家的タブーに近く、重要な関わりをニュートンと持つことは1999年の大英図書館の展示に、やや小さな扱いで現されていた。比喩表現として、価値評価としてシェイクスピアと錬金術も関わる。マイケル・マイナーの『逃げるアタランタ』（1617）中エンブレムの第六番はシェイクスピアのソネット三番に、鍍、錬金術、農業、性（生殖）のイメージが共通ということで、酷似する。『哲学の花園』（1550）は、ベッドに入ったり入浴中の裸の王や王妃が錬金術の結合やその過程を象徴する様が絵に描かれ、シェイクスピアの『リア王』と関連付けられる。リア王が受ける試練は錬金術の化学変化の過程、リア王が裸になる場面をその象徴とする説がある。『リア王』や『哲学の花園』は世俗的権威にとって危険になる科学的真実の追求としてタブーに近づき、ヨーロッパの中世から現代まで錬金術は「公式の科学」とされなかった。『リア王』上演がタブーとして禁止されなかった英国の自由は特筆すべきだ。リア王の狂気は王位喪失ゆえか家族問題を討議することにシェイクスピア劇の王位を舞台の尋観事と見なせるカトリック陰謀事件以後の劇評の成熟がある（ドブソン）。この時期の権威の引

—120—
How did Newton appreciate Shakespeare? NO.2

Locke and Newton discussed Biblical problems. Newton wrote to Locke about the unbelieving husband who was sanctified or made a Christian in wife\(^1\). He treated the theme in the thought of democratic common sense today rather than of dogmatic ancient religion. He never thought of a sudden change of belief by marriage. He thought of a gradual change in the family. It was educational and similar to the case of marriage between foreigners today. It was almost political, and religion and politics were deeply related to each other in this age.

Dobson introduced ‘the old joke about the Vatican avoiding making the same mistake again by checking the sex of all subsequent popes through a hole in the seat of the pontifical throne.’\(^2\) in ‘The Making of the National Poet,’ after referring to ‘Pope Joan.’\(^3\) Perhaps it is a play to laugh at Catholics by the idea of a female Pope enthroned by a mistake. It was dedicated to the Whig leader Shaftsbury. Dobson put in a footnote to this play, as follows:

 Appropriately, one enraged Papist—Charles’ Catholic mistress Louise de Keroualle, the

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Duchess of Portsmouth attempted to minimize Settle's profits by taking the entire court to the rival theater on Settle's third night, where the Duke's Company were reviving a more politically and generically orthodox play, Davenant's *Macbeth*.

It was the days when nationwide panic occurred. Titus Oates testified before Parliament that there was 'Popish Plot' of treason against the throne of England. King (Charles II) knew that Titus Oates' testimony was false, but panic against Catholics was so intense that he could not protect some of Catholic peers. He protected Queen and the Duchess of Portsmouth.

King's father was unhappy Charles I whose head was cut off for the first time (and perhaps the last time) in the history of England. Charles II was wise enough to conceal his faith to be Catholic till he lay on his death bed. He pretended to be Protestant and overcame the crisis. It is interesting that his Catholic mistress utilized Shakespeare to cope with the religious and political crisis. At that time Newton discussed physics with Robert Hooke by correspondence. It is not apparent whether Newton believed Titus Oates' false testimony. It is certain that he supported the Whig and Protestant. In 1685 he protested against Catholic James II's policy to give a Catholic man the degree (MA.) by Cambridge University. Newton was one of the representatives of the university.

It is wrong to understand from the Duchess of Portsmouth's episode that Shakespeare spoke for Catholic peers. 'Pope Joan' was dedicated to Shaftsbury, and Susanna Ashley-Cooper, the first wife of the 4th Earl of Shaftsbury supported Shakespeare as a member of the Shakespeare Ladies' Club. The club supported Shakespeare in 1730's and in the same period 'the patriotic opposition to Sir Robert Walpole' occurred. Viscount Cobham, the leader of the Opposition coalition group loosely known as the Patriots, made Shakespeare's and Newton's sculpture in 1735. It was The Temple of British Worthies in the Stowe garden. Dobson put that it was 'as part of just such an exercise in politically motivated canon-formation.' A Catholic courtesan, the Whig Leader, and the Patriots utilized Shakespeare, and it is wrong to conclude that Shakespeare and Newton are politically opposed.

Newton's political background was revolutionary, platonic (Cambridge Platonist) and anti-power in a subtle way. It was the age of revolution, and such a background was in a subtle relation to power. In the age of Restoration, courtly peers had power and Newton's

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political background was anti-power. After the Glorious Revolution, the Whig and Protestant had power. In a sense that he remained to be an Arian secretly, he was anti-orthodox. In a sense that he believed the possibility of some truth in alchemy, he was even anti-establishment. He took the oath and was given the post of the Master of the Mint and knighthood. Officially he was orthodox and had power after the Glorious Revolution. Michael White put as follows:

Newton was a man driven by childhood pain, but his subconscious method of dealing with angst was to accumulate power and to gain dominance over others. His scientific impetus was the need to know: in Newton’s eyes, knowledge was power. Similarly, he was driven to succeed as a civil servant by acquiring power over those weaker than himself. He was clearly capable of adapting his internal ethical framework for what his inner self would have considered a higher cause.\(^6\)

Many historians of science deny the assertion that Protestant scientists discovered the scientific truth in the age of Enlightenment. The assertion that the scientists accessed to Protestant power is more supported by them today. Newton was radical Protestant and he discovered the truth and acquired power. Newton was the typical powerful scientist in this age.

Just in the same period, Shakespeare acquired the name of the national poet. It was as if Shakespeare’s ghost had traced Newton in the same fate. In 1660, Charles II was enthroned to begin the age of Restoration, when Shakespeare was merely a great dramatist of the past. Shakespeare was buried and nobody could foresee that he would restore his former luster and acquire the name of the national poet.

It was similar to the condition of Newton in the same year. Only a few people understood his ability and his talent was buried in the country. Nobody could foresee that he would be ‘the National scientist.’ In the period about 1680, Exclusion Crisis occurred and Shakespeare attracted the people’s attention. Dobson put as follows:

Shakespeare’s works, a superabundant (if unrefined) harvest of wheat, are here once again represented as expressions of Nature, a troupe which during the Plot years not only implies

the appropriateness of adapting them but (misleadingly) claims a status of political neutrality for the adapted texts themselves.\(^7\)

Many playwrights worked for revisionism of Shakespeare because of this 'political neutrality,' which meant safety of them in such a dangerous revolutionary period. In the same period, Newton attracted the scientists’ attention and discussed physics with Robert Hooke as one of the prominent scientists.

After the revolution in 1689, Newton became a Member of Parliament representing Cambridge University. In 1696 Newton became the Warden of the Mint, and till he died in 1727, he became a man of power, as a prominent scientist and a civil servant. Just in the same period, Shakespeare began to be fully appreciated by the British Empire as an author. He was not sufficiently respected as an author till then, after Interregnum. Dobson put as follows:

Once deduced from his own dramas, Shakespeare-as-author posthumously professionalized by the editorial endeavors of Nicholas Rowe (1709) and Alexander Pope (1723–5), can be declared fully to possess them, and the adaptation and appropriation of Shakespeare’s plays merely as a body of old texts begins to give place to the adaptation and appropriation of ‘Shakespeare.’\(^8\)

(5)

During the former half of the 18th century, Shakespeare acquired the name of the national poet, and Newton ‘the national scientist.’ It is deeply related to nationalism which is related to taboo, and it is necessary to discuss taboo in order to discuss English nationalism. Alchemy was the most essential that suggests taboo in England in the age of the Enlightenment. Michael White put as follows:

Without his (Newton’s) in-depth knowledge of alchemy (which he practiced during the 1670’s and 80’s), he could almost certainly never have expanded the limited notion of planetary motion as he saw it in 1665/6 into the grand concepts of universal gravitation,

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\(^7\) Dobson, Michael, *The Making of the National Poet*, (Oxford University Press, 1997) , p.73.

\(^8\) Ibid., p.101.
of attraction and repulsion, and of action at a distance.\footnote{9}

The passage above is the critical passage to know the intention of Michael White in this book. What he asserted in this book is the importance of alchemy in Newton's discovery. Alchemy was intentionally hidden to tell about Newton in the age of Enlightenment and thereafter in the history of England. It is a sort of national taboo, because it is the matter of national importance to talk about the national scientist.

Here, I must define 'taboo' in this paper. I define 'taboo' in this paper as the secret to keep authority to rule the nation.

Alchemy was necessary for Newton to discover the truth and the truth was necessary for Newton to make him the national scientist, though alchemy was the secret and a sort of taboo. It is not only asserted by Michael White but also supported by the British Library. During my visit in 1999, the exhibition corner of Newton included a small amount of books on alchemy. The British Library admitted alchemy's relation to Newton officially, but it would not emphasize it.

Keeping alchemy in our mind, then, how should we treat the question 'How did Newton estimate Shakespeare?'?

Not only Newton but also Shakespeare was related to alchemy. Many books on alchemy points out the influence of alchemy on Shakespeare's works. Some passages have metaphor of alchemy, some plots suggest the process of alchemy, some speeches suggest the estimation of alchemy, and some poems are similar to the emblems to express alchemy.

'Seminate aurum veitrum in terram albam foliatam' ('Sow your gold in white foliated earth')\footnote{10} is similar to Shakespeare's Sonnet 3. The plate attached to this emblem is a picture of a farmer sowing. The short explanation to this picture includes the imagery of mirror, alchemy, agriculture, and sexuality (procreation). They are all included in Shakespeare's Sonnet 3 and it is as if the sonnet were the explanation of this emblem.

\textit{Atalanta fugiens} is the famous book to express alchemy. It includes emblems, pictures, musical notes, and explanation of alchemy. The explanation is abstruse and even professional historians of science specialized in alchemy cannot translate it into the words of modern science. It is abstruse, but the impression of the whole book tells us the atmosphere of alchemy. It was published in 1617, the next year to the year when Shakespeare died.

\footnote{10}{\textit{Emblema VI, De Secretis Noturae in Michael Maier, Atalanta fugiens} (Oppenheim 1617).}
In 1550, a famous book of alchemy was published. It was *Rosarium philosophorum* (Frankfurt, 1550) that has pictures to attract our attention because of Shakespeare’s *King Lear*. They are of naked king and queen, and the alchemical king and queen are on their bed or in their bath, symbolizing an alchemical combination or a process of it.

*Shakespeare’s King Lear* can be related to alchemy. Lear’s experience can be regarded as the alchemical process. Lear’s famous scene to become naked symbolizes this relation.

Both the pictures of naked king in *Rosarium philosophorum* and the scene in *King Lear* suggest ‘taboo’ in the meaning discussed here.

The king’s authority is lost in Shakespeare’s *King Lear* when he becomes naked. He suggests that human beings are like this, and what is lost is not only king’s authority but also the whole human beings’ dignity. The scene presents us the crucial human beings’ characteristic that has dignity like God and has nature of animals.

What alchemical king and queen suggest is abstruse, but it can safely be said that truth cannot be bound by the earthly order. A sort of scientific truth might be presented in the pictures of alchemical king and queen that transcends the earthly order.

The imagery of naked king both in *Rosarium philosophorum* and *King Lear* transcends the earthly order. It can be ‘taboo’ because it has the power to weaken the authority in the earthly order. It might be the very reason that alchemy was not admitted to be ‘official science’ from Middle Ages to the recent years in the history of Europe. It is a wonder that Shakespeare’s *King Lear* was not ‘taboo’ in the history of England.

As stated previously¹¹, after introducing the discussion ‘as to whether Lear’s madness had anything to do with the loss of his kingship or was caused entirely by his familial difficulties with Goneril and Regan,’ Michael Dobson remarked as follows:

After the adaptations of the Popish Plot years, for all their ostensible monarchism, it would be possible to treat the royalty of Shakespeare’s tragic protagonists as a mere stage convention, and to treat the play themselves as discussions of ‘universal’ human suffering rather than as contributions to specific Renaissance debates about political legitimacy.¹²

In remorse for the greatness of cutting off king’s head or in the natural movement of history, England allowed the sexual indulgence of Charles II. Like alchemical king and

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queen, naked king and his mistress on the bed were the picture, an open secret for the people. ‘The adaptations of the Popish Plot’ includes sexual profaning of authorities. Shakespeare’s *King Lear*’s scene where Lear becomes naked was treated as an expression of universal human suffering. It was not treated as ‘taboo’ and it is unknown why it was not treated as ‘taboo’. Was King’s authority strong enough to be intact or very weak to suggest the existence of the other authority than ‘king’ that ruled England?

Even in Shakespeare’s age when ‘specific Renaissance debates about political legitimacy’ were associated with Lear’s madness, it is a wonder that the picture of a naked king was presented on the stage, not regarded as ‘taboo’.

Here, I can emphasize the tradition of natural philosophy in England. In many nations, simple treatment of people by authorities to separate them from nature of human beings is necessary. The leaders of the nation should not be naked in the presence of others. Nationalism is to emphasize the conformity of people at the sacrifice of human nature. They are sometimes treated like animals. England was civilized enough to present a naked king on the stage, and its nationalism was not to emphasize the conformity of people at the sacrifice of human nature. It was to emphasize natural philosophy itself, viewing the whole nature of human beings.

(6)

Here is a logic that Newton must have appreciated Shakespeare. As stated previously, Newton was a genius of natural philosophy and he was close friends with John Locke. Exchanging letters, and visiting a house in the country, they were absorbed in discussing various matters. John Locke’s philosophy was one of the important factors to compose English nationalism in the 18th century. People who appreciated Locke’s thought had no reason not to appreciate Shakespeare at the age of the Enlightenment. In ‘The Making of the National Poet,’ Dobson used the adjective ‘Lockean’ as follows:

It is the construction of this crucial missing link between William Shakespeare’s body and the Shakespearean corpus, the retrospective invention of Shakespeare as himself a Lockeian economic individualist, which conclusively establishes the Bard as the author of his own works, a process delayed until the early eighteenth century.13

13 Ibid., p.61.
In short, there was a gap between the imagery of Shakespeare and his works in the 1660s and 1670s. From the 1670s through the 1700s, this gap was filled gradually. When this process of filling the gap was almost finished, Shakespeare became the playwright on the Restoration and the 18th century stage who acquired later the name of the national poet. Till then, he was ‘a Lockean economic individualist.’ Dobson explained the difference between Shakespeare’s ‘Tempest’ and its Restoration adaptation ‘The Enchanted Island’ in the viewpoint of Locke’s thought related to economics and politics. He referred to Locke’s ‘Second Treatise of Government’ which was ‘in favor of a view of the origins of government based solely on private property.’ It was related to ‘sexual egalitarianism,’ but ‘Whether absolutist or contractual, Restoration political ideology simply failed to account for the subordination of woman.’ In order to ‘shore up an outmoded belief in Stuart paternalism’ ‘The Enchanted Island’ should add to ‘The Tempest’ the story of how a man and woman in a state of nature. ('The Enchanted Island’ developed the Shakespeare’s setting of a woman who does not know a man except father.) This is only one of the examples, and Dobson asserted that the subtle difference between the ideology of Shakespeare’s age and the Enlightenment was the background of the adaptations of Shakespeare’s works. He asserted that in the adaptations Shakespeare’s imagery as ‘a Lockean economic individualist’ was gradually established.

Here, I must point out that paternalism in question is unique. Related to politics and economics, paternalism itself is not so rare in the world. In most of the case, it is related to nationalism in the sense that it is linked to emphasis on the borders and conformity of people within the borders. The imagery of father is utilized as the center of conformity.

John Locke never emphasized borders nor conformity of people within the borders. It had sufficient reason and it told us the quality of his and Newton’s thought. John Locke’s thought was not welcomed by Restoration government and he had to hide himself out of England. His thought was welcomed by William III, the monarch fetched far away from out of England. Locke’s thought was international from the beginning and it had no reason to emphasize borders nor conformity of people within the borders.

Newton’s thought was, needless to say, scientific and science is the matter most international (in the sense that it transcends borders) that human beings have ever produced.

Then, how was Shakespeare? It is difficult to testify that real Shakespeare in his age,
the poet born in 1564 and dead in 1616, was international and scientific, though I believe it and I must somehow testify it. It is less difficult to testify that the National Poet, Shakespeare reconstructed in the Enlightenment is international and scientific. In order to explain the quality of ‘Shakespeare in the Enlightenment’, two persons’ names are important. One is Edmond Malone, the other Edmund Burke. Edmond Malone is the Father of textual studies of Shakespeare. Malone Society is the center of textual studies of Shakespeare today. Malone edition of Shakespeare in 1790 was the glorious results of his efforts. Malone’s way of textual studies is described by Margreta de Grazia as follows:

Malone introduced to Shakespeare Studies the distinction between ‘external’ and ‘internal’ evidence: he produced ‘external evidence’ derived from title-pages and Stationer’s Register entries to corroborate the ‘internal marks’ of diction, versification, allusions, and ideas. As with the anecdotes, the facts residing in documents determined the validity of the material in question: verifiable evidence substantiated stylistic observations.16

As stated previously, Edmund Burke appreciated Malone’s work, lamenting that he could only repay Malone’s gift of gold with a gift of brass in the form of ‘Reflections on the French Revolution.’17

In our eyes today, Malone’s way of studying is objective and natural as a way of social or humanistic science. The reason why such an objective way of studying was appreciated by Burke can be explained by Dobson’s commentary as follows:

Given the continuing opposition of Shakespeare to all things French which it exemplifies—traditionally placing Shakespeare as exemplar of British liberty against despotic French feudalism—it is hardly surprising that the British Shakespeare ‘industry’ should have been thrown into such a ferment in the years following the French Revolution, the familiar antithesis redefined, in the writings of Burke and Malone at least, to contrast Shakespeare as representative of British constitutional conservatism against the excessive liberty of revolutionary France.18

17 29 November 1790, The Correspondence of Edmund Burke.
The British Shakespeare 'industry' with constitutional conservatism contrasted against despotic or excessively revolutionary France was the background of Malone's objective way of studying, which was Dobson's (and De Grazia's, for Dobson recommended her book and she referred to the same contrast) very persuasive explanation. Malone's objective way of studying denied both despotic and revolutionary power, supporting bourgeois society of the British Empire. Bourgeois society needed moderate, objective way of thinking and what in Dobson's and De Grazia's mind can be, in the other way, explained as Newtonianism.

Let me cite Nakajima's description in his 'Robert Hooke--the man whose memory was erased by Newton':

Newtonianism was regarded as the thought that was adequate to terminate the disorder brought by Glorious Revolution and to establish the stable society.  

Nakajima described the society directly after the Revolution, but same can be said about 1790s. Newton's glory (to be elected as MP, to acquire the post of the Master of Mint, and knighthood by Queen Anne) was the result of his contribution to Glorious Revolution. It meant not only the contribution as a scientist but also as the founder of an ideology that supported the Whig and Protestant government. It was Newtonianism and it lasted to the end of the 18th century. The British conservatism acquired such a powerful ideology that was scientific and international. Newtonianism was international in the sense that it never emphasized the borders and conformity for the sake of conformity of people within the borders.

Newtonianism was more conservative than revolutionary France and more radical than despotic European feudalism. Newton became 'the national scientist' because of Newtonianism and Shakespeare became 'the national poet' supported by British constitutional conservatism. Mozart illustrated these matters, who joined Freemasonry and was fond of Shakespeare. His mind can be known by the following passage in Mary's answer in the interview (English organist and composer Vincent Novello and his daughter Mary visited Mozart's widow in 1829. They were interviewed and the interview was published.):

Mary--Mozart was fond of reading and well acquainted with Shakespeare in the translation.  

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19 Nakajima, Hideto, Robert Hooke--the man whose memory was erased by Newton, (Asahi-Shimbunsha, 1996), Asahi-Senso 565, p.263.
20 Wieland's prose one, 66 Diaries of Vincent & Mary Novello, (1829), p.541
How did Newton appreciate Shakespeare? NO.2

One of his favorite authors......forbidden fruit in the Austrian states she did not name it—
I suspect some of the French revolutionary work.21

It can be interpreted that the reason why Mozart was fond of Shakespeare was because his
works, symbolizing British constitution, were revolutionary. It was the same reason why
Mozart joined Freemasonry.

It was necessary for Mozart to destroy despotic European feudalism and nationalism of
countries that emphasized borders and people's conformity within them. Mozart was one
of the minds most international in the Europe. What he was aiming at (or fond of, at least)
was Shakespeare or British constitutional conservatism. This illustrated how British
nationalism was international. ‘International nationalism’ is a sort of contradiction, but it
was the very characteristic of British nationalism centering on Newtonianism, Locke's
thought, and every British version of the Enlightenment.

21 Travel Diaries of Vincent & Mary Novello, (1829), p.539.