# ESSAY 2.3

# A Letter from a Gentleman in Dunedin

# to

# a Lady in the Country

with

Remarks on the Meaning of *deduction* in the celebrated Mr Hume's *A Treatise of Human Nature*, 3.3.1, and in the discourse of the Eighteenth Century in general. Wherein the various senses of *deduction* deriv'd from the Best Authors are carefully distinguish'd., and the Consequences for the Study of Ethicks are deduced.

To Dr Annette Baier, formerly Professor of Philosophy at the University of Pittsburgh,

Distinguished Madam,

It is not without timidity that I venture to dispute with an author of your distinction whose knowledge of the writings of the late Mr Hume vastly exceeds my own. I should scarce content myself with the old excuse of *magis amicus veritas*, did I not think that *in this instance* you had done a literary injustice to the memory of our mutual friend (as I cannot help thinking of Mr Hume); an injustice of some consequence for the understanding of ethics. In your justly celebrated *A Progress of Sentiments* and in your recent paper 'Hume's Own "Ought" Conclusions', you defend the following assertions:

1) *That* when Mr Hume suggests that it 'seems altogether inconceivable' 'how a new relation', *ought,* or *ought not,* 'can be a deduction from others, which are entirely different from it', he employs 'deduction' in the large and liberal sense characteristic of Sherlock Holmes.

2) *That* in this Hume was following the common custom of his times, which employed 'deduction' to cover inferences generally, including ampliative inferences, reserving the word 'demonstration' for formally valid deductions.

3) *That* Hume did not mean to suggest that deductions from *is* and *is not* to *ought* and *ought not* were '*altogether* inconceivable' but only that this new relation or affirmation *ought* should be 'observed and explained' and that a reason should be given, how this new relation could be a deduction (that is *inferr'd*) from others, which are entirely different from it.

4) *That* Hume himself observes and explains this new relation or affirmation, deducing (in a large and liberal sense) *ought nots* - for example that one *ought not to steal* - from observations concerning human affairs – such as the need for conventions regarding property.

5) *That* a small attention to the context of Hume's remarks would subvert all those vulgar systems of philosophy which exaggerate the fork between fact and value, deriving this claim from Hume's supposed thesis that it is 'altogether inconceivable' that an *ought* can be derived from an *is*.

I maintain on the contrary

1) *That* in this celebrated passage, Hume employs 'deduction' in the strict sense, according to which if a conclusion *B* is justly or evidently deduced from a set of premises *A*, *A* cannot be true and *B* false, or *B* false and the premises *A* true.
2) *That* Hume was following the common custom of his times which *sometimes* employed 'deduction' in a strict sense to denote inferences in which, in the words of Dr Watts' *Logick*, 'the premises, according to the reason of things, do really contain the conclusion that is deduced from them'; *that* although Hume sometimes uses 'demonstrative argument' as a synonym for 'deduction', like most of his contemporaries, he generally reserves the word 'demonstration' for deductive inferences in which the premises are both necessary and self-evident.
3) *That* Mr Hume did indeed mean to suggest that deductions from *is* to *ought* were *'altogether* inconceivable' since if *ought* represents a new relation or affirmation, it cannot, in the strict sense, be justly deduced from premises which do not really contain it.
4) *That* in a large and liberal (or perhaps loose and promiscuous) sense Hume does indeed deduce *oughts* and *ought nots* from observations concerning human affairs, but that the deductions in question are not inferences, but *explanations*, since in another sense of 'deduce', common in the Eighteenth Century, to deduce *B* from *A* is to trace *B* back to *A* or to explain *B* in terms of *A;*
5) *That* a small attention to the context of Hume's remarks and to the logical notions on which they are based would indeed subvert those vulgar systems of philosophy which exaggerate the distinction between fact and value; for just because it is 'altogether inconceivable' that the new relation or affirmation *ought* should be a deduction from others that are entirely different from it, it does not follow that the facts represented by *is* and *is not* are at bottom any different from the values represented by *ought* and *ought not*.

We had better begin with point 2). For if 'deduction' was seldom employed to denote inferences in which the conclusion is contained within the premises, it is not very probable that Mr Hume

employed it for this purpose. But how do we distinguish betwixt deductions in the strict sense and deductions of the large and liberal kind?

Deductions in the large sense (but *not* in the strict) are *ampliative* since the conclusions need are not contained within the premises; *inconclusive*, since the premises can be true and the conclusion false; and *not reversible*, since the falsehood of the conclusion need not betoken the falsehood of any of the premises. Conversely a deduction in the strict sense (but not in the large) is *not ampliative*, the conclusion being contained within the premises; it is *conclusive*, since the premises cannot be true and the conclusion false; and it is *reversible,* the falsehood of the conclusion betokening the falsehood of at least some of the premises. In the words of Dr Watts, 'From truth nothing but truth can follow but what is true; whensoever, therefore, we find a false conclusion drawn from premises which seem to be true, there must be some fault in the **deduction** or inference; or else one of the premises is not true in the sense in which it used in that argument' (Watts, [1724] 1996, §3.3, p. 301). .

Thus far deduction; but what of demonstration? Here, I defer to the authority of Dr Johnson whose opinions on this topic scarcely differ from those of Mr Hume (Abstract, 18/653). Just as deductions in the strict sense are a species of deductions in the large. so demonstrations are a sub-species of deductions in the strict sense. According to Dr Johnson's *Dictionary*, to **demonstrate** a proposition is *to prove* [it] *with the highest degree of certainty; to prove in such a manner as reduces the opposing position to evident absurdity* whilst a **demonstration** is *the highest degree of deducible or argumentative evidence; the strongest degree of proof; such proof as not only evinces the position proved to be true but shews the contrary position to be absurd and impossible.* Thus a demonstration is a demonstrative argument or a deduction in the strict sense in which the premises are not only necessary but self-evident.

Dr Owen objects that if a demonstration were understood as a deductively valid argument with necessarily true premises then any combination of necessary propositions would rise to the dignity of a demonstration (Owen, 1999, p. 90). An argument is deductively valid – that is, a deduction in the strict sense – if the premises cannot be true and the conclusion false. But if the conclusion is necessarily true, then the premises cannot be true and the conclusion false, since the conclusion cannot be false. Thus any argument with a necessarily true conclusion will be deductively valid, and any deductively valid argument with a necessarily true premises will qualify as a demonstration, though the premises may have as little to do with the conclusion as the conclusion has to do with the premises. Hume could not have subscribed to such an absurd and useless notion. Hence, whatever he meant by 'demonstration' he did not mean a deduction (in the strict sense), with necessarily true premises.

This argument proves too much. For if Hume could not have meant by 'demonstration' a deductively valid argument with necessarily true premises, then no man of sense could have meant such a thing. Yet it is evident that men of sense, and even genius, have meant precisely this. Consider, for example, the late Bishop of Cloyne:

> Fourthly, by a diligent observation of the phenomena within our view, we may discover the general laws of Nature, and from them deduce the other phenomena, I do not say *demonstrate*; for all deductions of that kind depend on a supposition that the Author of Nature always operates uniformly, and in a constant observance of those rules we take for principles: which we cannot evidently know. (Berkeley, *Principles* §109, 1901, p. 317.)

The good bishop's meaning is plain. By a diligent observation of the phenomena – that is by an *induction* – we arrive at certain laws of nature, such as the incomparable Sir Isaac Newton's inverse square law. Once these have been arrived at we can (with the aid of certain assumptions) *deduce* other phenomena such as the periodic return of Halley's Comet. But though the phenomena in question be never so justly deduced from the laws and initial assumptions, yet the deductions never amount to demonstrations since the premises from which they are derived are neither *necessary* – since they depend on God's good pleasure – nor *evident* – since we cannot know that God will persist in his present purposes. But by thus distinguishing demonstration from deduction, Dr Berkeley makes it sufficiently plain that for him a demonstration is a deduction in which the premises are both necessary *and* self-evident.

Now, it is the opinion of Dr Owen, that Berkeley was thereby committed to the view that any combination of necessary propositions constitutes a demonstration. But though Berkeley believed that both '2 + 2 = 4' and 'The Deity exists' were necessary propositions, he did not suppose that the one could be deduced from the other! Was he perhaps unaware of this consequence or is Dr Owen mistaken?

Dr Owen's error consists in confounding a necessary with a sufficient condition. If an inference is deductively valid, the premises cannot be true and the conclusion false. But it does not follow that if the premises cannot be true and the conclusion false, the inference is deductively valid. In the Eighteenth Century as now, some further condition had to be met. Dr Owen, I suspect, supposes, that the only possible condition could be syntactic, for example that the inference should conform to rules of Aristotelian syllogistic. But then, as now, the further condition was semantic. Following the great Tarski, we would nowadays say that an inference is only deductively valid if there is no interpretation of the non-logical vocabulary according to which the premises are true and

the conclusion false. Thus it is not true (as Dr Owen seems to think) that, an inference is automatically valid if the conclusion is necessarily true, since not all necessary truths are truths of logic. In the Eighteenth Century the learned subscribed to different constraint on consequence, of which Hume was well aware, having 'passed through the ordinary course of education with success'. For the ordinary course of education at Edinburgh comprehended the Latin lectures of Colin Drummond, then Professor of Logic. These were thrown into the form of a logical catechism:

> Q *Cur Mens semper necessitatur ad Conclusionem Inferendam?*
> Why [in a syllogism] is the mind always necessitated to infer a conclusion?
> R *Quia Conclusio Virtualiter continetur In Praemissis.*
> Because the conclusion is virtually contained in the premises (Drummond, 1724)

The idea that the conclusion of a valid inference is 'contained' within the premises is was common in the 17th and 18th Centuries and was accepted in one form or another by Hobbes, Geulinx, Arnauld and Nicole[1]. Dr Watts - who was able on occasion to avert his eyes from the wondrous cross on which the Prince of glory died[2] in order to apply himself to logic - employs this idea to get over a difficulty, evident to every discerning mind, that there are valid arguments – indeed arguments valid in virtue of their form - that do not comply with rules of Aristotle's Syllogistic. 'Though this sort of argument is confessed to be entangled or confused, and irregular, if examined by the simple rules of syllogisms; yet there is a great variety of arguments used in books of learning and in common life, whose consequence is strong and evident, and which must be ranked under this head.' After listing several such arguments, he goes on 'Now the force of these arguments is so evident and conclusive, that although the form of the syllogism be never so irregular, yet we are sure the inferences are just and true; for the premises, according to the reason of things, do really contain the conclusion that is deduced from them, which is a never-failing test for true syllogisms as we shall show hereafter'. (Watts, 1996, §3.4, p. 284.) Applying this never-failing test to the inference from '2 + 2 = 4' to 'The Deity exists', it is plain that however so necessary they both may be, the one is not contained within the other, and thus that the argument is neither a 'true syllogism' nor yet a demonstration. Thus one can conceive of a demonstration as a deductively valid argument with necessary and self-evident premises without admitting the consequence that any combination of necessary truths rises to the dignity of a demonstration.

I can now defend the opinion of which I have already given *strong hints* - *that* the words 'deduce', 'deduction' etc were sometimes used in the strict sense in the Eighteenth Century. In fact they were employed in at least *four* distinct senses (excepting their use in Arithmetick):

Sense 1 (modern): *A* ***deduction*** *is an inference in which the conclusion B necessarily follows from the (possibly contingent or even false) set of premises A, because the conclusion B is in some sense 'contained' within at least one of the premises. To deduce B from A is to make such an inference. Deductions in this sense include syllogistic inferences, mathematical demonstrations and analytic inferences such as the inference from* 'Harry is a bachelor' *to* 'Harry is unmarried'.

Sense 2: *To deduce B from A is to infer B from A in the Sherlock Holmsian sense in which the inferences involved can be, and often are,* ***ampliative****. A* ***deduction*** *is simply an inference.*

Sense 3: *To* ***deduce*** *B from A is trace B back to A,* or to *explain B in terms of A. A* ***deduction*** *is such a tracing back or explanation.*

Sense 4: *To* ***deduce*** *is to explain* or *set forth methodically. A* ***deduction*** *is simply a methodical exposition.*

Did anyone ever deduce in Sense 1? Bishop Berkeley did as did Dr Watts. But they were not the only ones. In a letter to Hume, Dr Reid employs the verb 'deduce' in precisely this sense.

> But whether I have any success in this attempt or not, I shall always avow myself your Disciple in Metaphysicks. I have learned more from your writings in this kind than from all others put together. Your system appears to me not onely coherent in all its parts, but likeways justly **deduced** from principles commonly received among Philosophers: Principles, which I never thought of calling in question, untill the conclusions you draw from them in the *Treatise of Human Nature* made me suspect them. (Letters, 1.201n/376, Reid, 2002, Letter 21, p. 31)

Reid's generous but critical compliment is clear. Hume justly *deduces* certain conclusions from principles commonly received among Philosophers. This is his great achievement. These conclusions appear to Reid to be false, and therefore, since the conclusions are indeed justly deduced – since the principles do really contain the conclusions that are deduced from them – if the conclusions are false the commonly received principles must be false also.

But what of senses 3) and 4)? If we turn to the luminous pages of Mr Gibbon, we find that despite his many inferences, 'deduce' and 'deduction' are more often employed in these latter two senses. Sometimes Gibbon deduces *B* from *A* by tracing *B* back to *A*, sometimes he deduces *B* from *A* by explaining *B* in terms of *A* and sometimes he deduces something by narrating an episode or setting things forth in a clear and perspicuous manner. (According to Dr Johnson *one* meaning of 'deduce' is *to lay* [things] *down in a regular order so that the following shall naturally rise from the foregoing*.) For example:

> It is the design of this, and of the two succeeding chapters, to describe the prosperous condition of [the Roman] empire; and afterwards, from the death of Marcus Antoninus, to **deduce** the most important circumstances of its decline and fall; a revolution which will ever be remembered, and is still felt by the nations of the earth. (*Decline and Fall*, ch. 1, I, p. 31.)

Mr Gibbon is not *inferring* the most important circumstances of the empire's decline and fall from anything else, nor is he *tracing them back to* or *explaining in them in terms of* any other facts or circumstances - rather his purpose in these chapters is simply to *lay down* those circumstances *in a regular* and perspicuous *order*, a purpose in which he abundantly succeeds.

But the following passage illustrates the way that these various senses can insensibly blend into one another:

> From the age of Constantine to that of Clovis and Theodoric, the temporal interests both of the Romans and Barbarians were deeply involved in the theological disputes of Arianism. The historian may therefore be permitted respectfully to withdraw the veil of the sanctuary; and to **deduce** the progress of reason and faith, of error and passion from the school of Plato, to the decline and fall of the empire. (*Decline and Fall*, ch. 21, I, pp. 770-771.)

This deduction is primarily a *setting forth*, but it is also in some measure a *tracing back*. Mr Gibbon proposes to *narrate* the story of the theological disputes of Arianism, but he is also *tracing back* that memorable heresy to its origins in the school of Plato. Indeed, by *tracing back* the disputes about Arianism to the speculations of Plato, he is giving that philosopher a causal role, however slight, in the decline and fall of the Roman Empire, and *explaining* that event as due in some degree to the extraordinary passion for theological faction that possessed both the Romans and the

Barbarians in that disputatious age. Sometimes, however, Mr Gibbon's *tracings back* are not *explanations* but tracings back only. Thus:

> Toxotius, the husband of Paula, **deduced** his royal lineage from Aeneas, the father of the Julian line. (*Decline and Fall*, ch. 31, II, pp. 169-170.)
>
> .

Toxotius may have traced his royal lineage back to the great Aeneas, but this deduction was not an explanation in any serious sense of the word.

Sometimes however, the idea of explanation predominates:

> The motives of [Constantine's] conversion, as they may variously be **deduced** from benevolence, from policy, from conviction, or from remorse, and the progress of the revolution, which, under his powerful influence and that of his sons, rendered Christianity the reigning religion of the Roman empire, will form a very interesting and important chapter in the present volume of this history. (*Decline and Fall*, ch. 16, I. p. 571.)

Here the motives of Constantine's conversion to Christianity are to be *explained* in terms of benevolence, policy, conviction, and remorse. There is, to be sure, an element of tracing back in this, but the question that Gibbon proposes to answer is this: *What cause or causes led Constantine to convert?* Gibbon is seeking an explanation of that momentous event, deducing it, in this sense, from that emperor's circumstances, passions, dispositions, and beliefs.

Did Hume himself every employ 'deduction ' in its strict and logical sense? You think not Madam, citing in your support the authority of Dr Owen:

> Suppose demonstrations were deductively valid arguments with necessarily true premises. We would then expect Hume at least to acknowledge the class of deductively valid arguments with contingent premises. But Hume rarely talks of deduction and its cognates at all. Where he does he is using 'deduction' in its standard 18th Century sense of 'argument'. (Owen, 1999, p. 90.)

From this we can conclude not that Dr Owen has not read Hume, nor that he has not read him with due care and attention, but that he has not employed the helps and avails of modern technology, specifically an electronic text with a word search capability. Had he condescended to do so, he might perhaps have discovered *that* leaving out Arithmetic, 'deduction' and its cognates - 'deduce',

deduced', 'deductions' and 'deducing' – occur twenty-eight times in the writings of Mr Hume; *that* five of these deductions are *tracings back* or *explanations* rather than *inferences* or *arguments*; *that* one, and maybe two, are *expositions; that* of the one-and-twenty inferences, though most are merely arguments, several are ambiguous between deductions in the large sense and deductions in the strict; *that*, leaving aside the supposed deductions from *is* to *ought*, there are at least *two* deductions in the strict sense in Hume; and *that* in these inferences *some* of the premises are *contingent*. Here is one of them.

> I doubt not but these consequences will at first sight be receiv'd without difficulty, as being **evident deductions** from principles, which we have already established, and which we have often employ'd in our reasonings. This evidence both in the first principles, and in the **deductions**, may seduce us unwarily into the conclusion, and make us imagine it contains nothing extraordinary, nor worthy of our curiosity. But tho' such an inadvertence may facilitate the reception of this reasoning, 'twill make it be the more easily forgot; for which reason I think it proper to give warning, that I have just now examin'd one of the most sublime questions in philosophy, viz. that concerning the power and efficacy of causes; where all the sciences seem so much interested. Such a warning will naturally rouze up the attention of the reader, and make him desire a more full account of my doctrine, as well as of the arguments, on which it is founded. (T, 1.3.14.2/156.)

Hume is endeavoring to rouse up those sleepy readers who have not been sensible that he has just said something of interest and importance. The consequence that he believes himself to have deduced is that the *idea* of a necessary connection betwixt cause and effect is copied from the *impression* of heightened expectation that we feel when we anticipate the effect following the experience of a constant conjunction between like causes and like effects. Although this conclusion can be deduced from well-established principles (particularly the principle that our ideas are either copies or combinations of copies of our impressions), an inattentive reader might not be sensible of its true significance and that it is both extraordinary and worthy of our curiosity. There are three reasons for thinking that these 'evident deductions' are intended to constitute a demonstrative argument, that is a deduction in the strict sense of the word: a) *that* Hume uses the word 'evident' which Locke (like other writers of the period) often employs to distinguish those deductions which are demonstrative from those which are not; b) Hume's cocksure self-confidence that his argument is 'perfectly unanswerable' (T, 1.3.14.19/164) which ampliative deductions generally are not; and c) *that* his reasoning can indeed be recast as a deductively valid argument (a reconstruction

confirmed by his subsequent elaborations of the argument in the rest of the section, especially T, 1.3.14.22/165-6):

> i) Every idea is derived from at least one impression.
> ii) We have the idea of a necessary connection.
> iii) The only impression from which we could have derived the idea of a necessary connection is the impression of heightened expectation etc.
> iv) Therefore, the idea of a necessary connection is derived from the impression of heightened expectation etc.

Indeed, it is not just the main argument that can be recast as a piece of deductive reasoning in the strict sense. The arguments for premises i) and iii) are also deductively valid. The argument for i) is this: *either* every idea is derived from at least one impression *or* some ideas are innate *or* reason alone can give rise to an original idea; but no ideas are innate ('the principle of innate ideas … has already been refuted and is now almost universally rejected in the learned world', (T, 1.3.14.6/158) and (as has been 'sufficiently explain'd) 'reason alone can never give rise to an original idea' (T, 1.3.14.5/157); therefore every idea is derived from at least one impression. The argument for premise iii) is this: the only impressions from which we could have derived the idea of a necessary connection are impressions of sensation or an impression of reflection, namely the impression of heightened expectation etc; the idea of necessary connection is not derived from impressions of sensation; therefore the only impression from which we could have derived the idea of a necessary connection is an impression of reflection, namely the impression of heightened expectation etc. As for premise ii), it needs no argument, since Hume takes it to be evident to introspection. Thus, as the context makes plain, Hume's 'evident deductions' are meant to be deductively valid inferences.

Nor is this all. The premises from which Hume's 'evident deductions' are derived are all of them contingent. As a matter of fact, none of our ideas are innate but there is nothing self-contradictory about the hypothesis of innate ideas, which means that premise i) might be false, and is, therefore contingent. We *do* have the idea of a necessary connection, but to employ a modern idiom, we might have been 'wired up' *not* to have it, which means that premise ii) is likewise contingent. And when Hume says, in effect, that the only possible impression from which the idea of a necessary connection could have been derived is the impression of heightened expectation etc, the 'possibility' in question is *natural* possibility rather than *logical* possibility or conceivability. No contradiction follows from the negation of premise iii), which means that this premise too is contingent. The three premises are among the experimentally confirmed 'facts' on which Hume's attempt to introduce the experimental method of reasoning into moral subjects is founded.

Thus deduction is being used in the narrow sense even though the premises from which Hume's conclusions are deduced are psychological contingencies.

I cannot forbear adding to these reasonings two further observations, a) *that* a diligent student such as Mr Hume certainly *ought* to have been aware of deductive arguments with contingent premises, since he had been informed of their existence by his logic teacher, Professor Drummond. and b) *that* a student of Leibniz's *Theodicy* (which we know Hume to have been) could scarcely have been unaware of such deductions, since they play a prominent part in that author's defence of the Deity. First Drummond:

> Q [In a syllogism] does the conclusion follow from the premises necessarily?
> R Yes.
> Q How many kinds of necessity are there?
> R Two - necessity of the consequent and [necessity] of the consequence.
> Q What is necessity of the consequent?
> R That which depends on the necessity of the connection of the terms [in the consequent].
> Q To which syllogisms does this property belong?
> R To necessary ones.
> Q What is necessity of the consequence?
> R That which arises from the due arrangement of terms.
> Q In which syllogisms is this necessity found?
> R In all syllogisms.
> Q Can there be a syllogism without necessity of the consequence?
> R No, but there are many without necessity of the consequent. (Drummond, 1724).

Thus there are many syllogisms - that is, deductions in the strictest sense - in which the *consequence* is necessary but the *consequent* is not. And that is a circumstance that can only occur if at least one of the premises is contingent. As for the celebrated Monsieur Leibniz, the Appendix to the *Theodicy* contains a section 'Summary of the Controversy Reduced to Formal Arguments' containing eleven formally valid arguments which purport to prove either that there is no God or that He is not just. Of these, seven have contingent premises (Leibniz, 1985, pp 377-392). One might add that if, as is commonly supposed, Hume was acquainted with Sextus Empiricus, he would have been aware of the stock syllogisms of the Stoics, such as 'If it is day it is light: but it is not light; therefore it is not day'. In this inference, as in many others cited by Empiricus, at least one of the premises is contingent (Mates, 1996, pp. 158-160).

But what of the deductions from 'is' to 'ought'? . It is notable that in this passage Hume speaks the language of logic. Though there is a good deal of copulation in the works of Mr Hume - eight instances of 'copulation' and one of 'copulate' - in every other instance the words denote the union of the sexes. It is in this passage only that he talks of *copulations of propositions*, meaning, by this, the verb by which the subject and the predicate are *connected* in an affirmative or negative proposition. Every text and every course of instruction on formal logic, from 1600 through to 1750 devoted much space to the *copula*, a word which was seldom employed in any other connection. (Locke, Berkeley and Smith who had no taste for formal logic never use the word once.) And it is surely a very reasonable presumption that when Hume employs a logical term of art, it is a logical observation that he wishes to make.

I come now to an argument which I flatter myself is quite decisive. If Hume meant 'deduction' in the large and ampliative sense, then so far from making a true or even a sensible observation, he would have said something foolish and evidently false. But Hume was not given to folly and though his opinions are sometimes false, it seldom that they are evidently so. Therefore it is very improbable that he meant 'deduction' in its large and ampliative sense.

Why so? Because Hume says that, it 'seems altogether inconceivable, how this new relation [*ought* or *ought not*] can be a deduction from others, which are entirely different from it'. But if Hume meant 'deduction' in its large and ampliative sense this would not seem inconceivable in the least. For it is *only* if 'deduction' is employed in its strict sense that 'the premises, according to the reason of things, [must] really contain the conclusion that is deduced from them'. Since it did indeed *seem* inconceivable, he cannot have employed 'deduction ' in its large and ampliative sense.

So much for points 1) and 2). I come now to point 3). If Hume meant deduction in its strict and logical sense, then it was presumably his opinion that it not only *seems* but actually *is* inconceivable that this new relation or affirmation *ought* can be a deduction from others entirely different from it. For if the premises in a just deduction do virtually contain the conclusion that is deduced from them, then it really is inconceivable that the new relation *ought* can be justly deduced from premises from which *ought* is entirely absent. If Hume is challenging an opponent to give a reason for what *seems* altogether inconceivable - that this new relation could be a deduction from others, which are entirely different from it - he was issuing a challenge that he did not expect to be met. Here indeed is a barrier to inference or deduction, but only to deductions in the strictest sense of the word, namely inferences in which, as Professor Drummond put it, the conclusion follows from the premises 'not materially but formally, since [there is] no new material is in the conclusion which is not in the premises, but the terms are merely arranged in a different way'. (Drummond, 1724). This is a barrier which ampliative inferences can surmount with ease, but only by sacrificing the assurance, that logic confers, that the premises cannot be true and the conclusion false.

Nonetheless, tho' Hume erects no barrier to *ampliative* inferences from *is* to *ought,* such deductions are seldom to be met with in the *Treatise*. I agree with you Madam that in *Treatise,* 3.2, Hume deduces *oughts* and *ought nots* from observations concerning human affairs, but I deny that those deductions are inferences. 'Obligations to respect others' property, [to] keep promises, [to] obey magistrates [and to] keep marriage vows', are indeed deduced from human conventions which arise in order to remedy certain *inconveniences*, which proceed from the concurrence of certain *qualities* of the human mind - such as *selfishness* and *limited generosity* - and the situation of external objects - such as their *easy change,* joined to their *scarcity* in comparison of the wants and desires of men (T, 3.2.16/494). But when Hume deduces these obligations, he deduces them in much the same sense that Gibbon deduces the motives of Constantine's conversion 'from benevolence, from policy, from conviction, or from remorse'. The deductions in question are tracings back or explanations, deductions in Sense 3. 'When the neglect or nonperformance of [an action] displeases us *after a* [certain] *manner,* we say that we lie under an obligation to perform it' (T, 3.2.5.4/517). Thus to say that I have an obligation to respect another's property, to keep a promise or to obey the government is to say that the neglect or the non-performance of such actions would arouse a sentiment of disapprobation in an informed and impartial spectator, a conception that Hume probably derived from Hutcheson: 'When we say one is obliged to an Action, we ... mean … That every Spectator, or he himself upon Reflection, must approve his Action, and disapprove his omitting it, if he considers fully all its Circumstances' (Hutcheson, 2002, p. 146). But if an act is obligatory because its non-performance would arouse a sentiment of disapprobation, to *infer* that an action is obligatory from 'observations concerning human affairs' is to *infer* from such observations that the action would arouse such a sentiment. Unless he is propounding a *reductio* or unravelling the consequences of a theory which he imperfectly understands, when a philosopher infers, he proceeds from what is known to what is less known, or at least from what is known to what requires further proof. But for Hume our propensities to approve or disapprove do not stand in need of proof or justification, nor can philosophy call them into question unless they depend on mistaken beliefs[3]. When it comes to morality 'the opinions of men ... carry with them a peculiar authority, and are, in a great measure, infallible. [Since] the distinction of moral good and evil is founded on the pleasure or pain which results from the view of any sentiment or character; ... there is just so much vice or virtue in any character as every one places in it' (T, 3.2.8.8./546-7). In this instance Hume exaggerates his real opinion concerning the moral infallibility of mankind. If the view from which pleasure and pain results is dependent on the delusive glosses of superstition and false religion, or on mistaken opinions concerning history or political oeconomy, there may indeed be more or less vice or virtue in an action or character than every one places in it. Thus the monkish virtues are vices despite the sentiments of the pious, and the jealously of trade is not a political

virtue despite the sentiments of the mercantilists, (EPM, 9.1.13/270, *Essays*, 2.6.) Indeed the monkish virtues and the jealousy of trade would continue to be vicious even if we were all deceived by the delusive glosses of false religion or misled by the sophistries of mercantile oeconomists. Nonetheless, when our opinions concerning matters of fact are correct our *moral* opinions cannot err since they are founded on the *sentiments* that we feel when contemplating the facts. And we cannot be mistaken about our feelings. But where there is no need for discovery nor yet for further proof, inference has no place, nor is there any need to *infer* the truths of morals from propositions less certainly known. As Hume himself observes 'our judgments concerning the *origin* of any vice or virtue, [are] not so certain as those concerning their *degrees*' (T, 3.2.8.8./547,). Hume does not *begin* with the need for conventions and infer from thence the existence of obligations. Rather, he takes our obligations for granted, founded, as they are, on sentiments which we are all supposed to feel, and endeavours to trace them back to inconveniences caused by qualities of the human mind (such as *lust* or *limited generosity*) and to the situation of external objects (or in the case of the feminine obligation to chastity 'a trivial anatomical observation'), which men learn to solve by the artifice of convention. Once the conventions have arisen, we annex the sentiments of approbation and disapprobation to the performance or non-performance of the relevant actions through the operations of sympathy. These are the causes of which our obligations are the effects. But Hume does not reason from the causes to the effects but from the effects to the causes. Hence his deductions of our duties are not inferences from observations concerning human affairs to conclusions concerning duties but attempts to trace back our duties to their origins in human nature.

You observe very justly Madam, that in the *EPM* we find no recasting, even in an amended form, of Hume's supposed 'Law' forbidding inference from 'is' to 'ought' (3.1§2). But some deductions from claims about human nature to the principles of morality are denied in the *EPM*, and the deductions that are denied in the *EPM* afford us some clew as to the deductions that are affirmed in the *Treatise*. 'This deduction of morals from self-love', says Hume, 'is an obvious thought, and has not arisen wholly from the wanton sallies and sportive assaults of the sceptics' (EPM, 5.1.6/215). But obvious as it may be (to those who have read their Mandeville, 1988), Hume goes on to argue that we must 'renounce the theory, which accounts for every moral sentiment by the principle of self-love'. Instead we should 'allow, that the interests of society are not, even on their own account, entirely indifferent to us, … that every thing, which contributes to the happiness of society recommends itself directly to our approbation and good-will, [and that this is] a principle, which accounts, in great part, for the origin of morality (EPM, 5.2.17/19). Thus the deduction that is denied is an attempt to *explain* our moral sentiments as due to the modifications of self-love and the deduction that is affirmed is a better explanation that accounts for the origin of morality by tracing it back to sympathy and the sentiment of humanity. Hume's attempts in the *Treatise* to

deduce our duties from our passions and the conventions that arise to palliate their effects are deductions of a similar nature.

Finally I come to point 5). There are those philosophers who suppose that if it is indeed inconceivable that the new affirmation *ought* can be a deduction from others that are entirely different from it, then the facts represented by *is* and *is not* must be at bottom entirely distinct from the values represented by *ought* and *ought not*. It is because they deny any fundamental distinction betwixt facts and values that some philosophers maintain that it is indeed possible to deduce affirmations concerning *ought* from premises that are utterly devoid of that expression. Such philosophers deny the consequent when they ought to be questioning the consequence. Mr Hume is reliant on the principle that in a strict deduction the conclusion follows from the premises 'not materially but formally, since there is no new material is in the conclusion which is not in the premises', a principle in which he was instructed at the University of Edinburgh. It is the absence of moral matter in the premises not the fundamental nature of the values expressed in the conclusion that prohibits the inference from *is* to *ought*. Why then does Hume make so much of a logical observation, supposing that it might subvert the all the vulgar systems of morality? Because the vulgar systems are those which purport to *demonstrate* the truths of morality. Hume endeavors to prove, with but indifferent success, that, with the exception of certain trifling propositions, no moral truth is self-evident. But the truths of morality might yet be demonstrable if they could be deduced (in the strict sense) from *non*-moral premises, that is premises devoid of moral matter. It is logic alone that prohibits such deductions, just as it prohibits any inference whatsoever in which the matter of the conclusion is not contained within the premises.

If a wild philosopher, an ornithological Dr Clarke, had maintained, with every excess of pious declamation, that truths about *tom-tits* were demonstrable, how might Hume have replied? He would have answered, I suggest, *that* (with certain trifling exceptions) no proposition concerning tom-tits is self-evident, not even the assertion that they are birds, since there is no contradiction in the supposition that they might prove on inspection to be cunningly disguised bats or the artificial creations of an ingenious craftsman. And he might have added to this reasoning the following observation. 'In this gentleman's demonstrations I have always remark'd, that he proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning avian affairs; when of a sudden I am surpriz'd to find, that instead of such predicates as 'is one of God's creatures', 'is a bird' or 'eats insects', I continually meet with the predicate 'is a tom-tit' or 'is not a tom-tit'. . This change is imperceptible; but is, however, of the last consequence. For as this 'is a tom-tit', or 'is not a tom-tit', expresses some new conception or affirmation, 'tis necessary that it shou'd be observ'd and explain'd; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new predicate

can be a deduction from others, which are entirely different from it. But as the gentleman does not commonly use this precaution, I shall presume to recommend it to the readers; and am persuaded, that this small attention wou'd subvert his vulgar system of demonstrative ornithology, and let us see, that the character of tom-tits is to be derived from experience, not perceiv'd by abstract reason.' Had there been such a wild philosopher and if Hume had responded in this way, would anyone with any logical capacity have concluded that (at least in Hume's opinion) *tom-tits are not birds*? No more should we conclude from his observations concerning *is* and *ought* that (at least in Hume's opinion) *values are not facts*.

I remain, Dear Madam, Your most Humble and Obedient Servant

etc.

## NOTES

1. See Hobbes (1981), Arnauld and Nicole (1996), and, for Geulincx, Nuchelmans (1988).

2. Dr Watts was not only a logician but a hymnist of note, whose sacred songs have resounded not only in the modest chapels of the dissenting sects but in the lofty cathedrals of the Established Church.

3. 'Have the gods forbid self-murder? An ATHENIAN allows, that it ought to be forborn. Has the Deity permitted it? A FRENCHMAN allows that death is preferable to pain and infamy.' (EPM, *Dialogue*, 35/335.) Hume maintains that self-murder need not be forborn by arguing with more sophistry than success, that even if He exists, the Deity has not forbidden it (*Essays*, 3.8).