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Hume as Regularity Theorist—After All! Completing a Counter-Revolution

PETER MILLICAN

Abstract: Traditionally, Hume has widely been viewed as the standard-bearer for *regularity* accounts of causation. But between 1983 and 1990, two rival interpretations appeared—namely the *skeptical realism* of Wright, Craig, and Strawson, and the *quasi-realist projectivism* of Blackburn—and since then the interpretative debate has been dominated by the contest between these three approaches, with projectivism recently appearing the likely winner. This paper argues that the controversy largely arose from a fundamental mistake, namely, the assumption that Hume is committed to the subjectivity of our conception of causal necessity. That assumption generated tensions within the regularity account, which the skeptical realist and quasi-realist alternatives, in very different ways, purported to resolve. But a broader and more balanced view of the textual evidence, taking due account of the relatively neglected sections where Hume *applies* the results of his analysis, tells strongly in favour of an objectivist regularity view, both in respect of causation and causal necessity. Despite some complications, the upshot is a far more straightforward reading of Hume than those that have hitherto dominated this long-running debate.

David Hume has widely been seen as the classic standard-bearer for both conceptual empiricism and regularity accounts of causation. These are intimately connected, because it is his empiricist investigation into the origin and nature of our idea of *causal necessity* that leads to his two "definitions of cause," the first of which apparently reduces causal relations to relations of regularity amongst events.[1] However, that

Peter Millican is Gilbert Ryle Fellow and Professor of Philosophy at Hertford College, University of Oxford, Catte Street, Oxford, OX1 3 BW, UK, and Visiting Professor of Philosophy at the National University of Singapore. Email: peter.millican@hertford.ox.ac.uk.

same investigation also seems to imply that causal necessity itself is *subjective*—in that its presence depends on customary inference within an observer's mind—which apparently conflicts with a regularity account. In the 1980s this long-standing tension in the traditional reading provoked (or at least encouraged) a would-be revolution in Hume interpretation, purporting to reveal a *skeptical realist* "New Hume" who is neither strictly empiricist nor a regularity theorist. The movement was started by John Wright's book *The Sceptical Realism of David Hume* in 1983, and quickly gathered prominent support, most influentially from Edward Craig's *The Mind of God and the Works of Man* in 1987, and Galen Strawson's *The Secret Connexion* in 1989. But it also attracted opposition, in particular from Simon Blackburn, who argued in his 1990 article "Hume and Thick Connexions" that *projectivist quasi-realism* provides a far preferable way of resolving the tension in Hume's position, albeit perhaps at the cost of weakening his superficially objectivist view of causal truth.

More recently, support for the "New Hume" interpretation has been undermined by a battery of powerful objections, though there seems to have been little appetite for returning to the traditional regularity interpretation, with quasi-realism apparently being left as the likely victor. But this paper aims to achieve a more complete counter-revolution, thanks to a crucial new contribution to the debate, challenging the general assumption that Humean causal necessity is fundamentally subjective. This enables Hume to be reinstated as both an empiricist and (relatively) straightforward regularity theorist about causation, rather than either a skeptical realist or a quasi-realist.

Given this paper's ambition to bring closure to a long-running debate, it is important first to outline the previous course of that debate, starting from Hume's texts—notably in his *Treatise of Human Nature*[2] and *Enquiry concerning Human Understanding*[3]—and ending with what seems to be the dominant current view. §1 summarises Hume's analysis of causation leading up to his two definitions of cause (in *Treatise* 1.3.14.31 and *Enquiry* 7.29), quoting key passages and highlighting how they generate the crucial tension between objectivity and subjectivity. Then §2 sketches how Hume's most prominent readers responded to this tension for more than 200 years, from his contemporary critics who took his theory to be clearly incoherent or false, to later scholars such as David MacNabb and Barry Stroud who attempted in different ways to accommodate the tension, but without satisfactorily resolving it. This background helps to explain why the revolutionary "New Hume" proved so attractive in the 1980s, and §3 outlines the main contributions to the intense debate this prompted, from the rise of skeptical realism in the works of Wright, Craig, and Strawson (§3.1), through Blackburn's rival projectivist interpretation (§3.2), to subsequent attacks on skeptical realism from Kenneth Winkler and myself, and further support for projectivism from Helen Beebee, Angela Coventry, and others (§3.3). A notable feature of all this discussion is the absence of any strong case for returning to the traditional regularity interpretation, with prominent scholars

attacking it forthrightly as being "off the agenda" (Craig), rejected "by all serious interpreters" (Blackburn), and suffering from "an almost total lack of evidence in its favour" (Beebee).

My case against this dominant consensus starts in §4, which turns attention from Hume's analysis of causation towards the subsequent parts of *Treatise* Book 1 where he refers back to that analysis and applies it. The first four of these applications come immediately after the two definitions of cause, in the form of the "corollaries" of T 1.3.14.32–6 (§4.1). These are followed in *Treatise* 1.3.15 by Hume's "rules by which to judge of causes and effects" (§4.2), which constitute the scientific methodology that he takes to be implied by his analysis. Part 4 of Book 1 is mainly devoted to skeptical topics rather than Hume's theory of causal science, but at the end of *Treatise* 1.4.5 he again draws on his analysis of causation, to undermine a prominent anti-materialist argument (§4.3). §5 highlights how all of these applications—as well as various other texts—crucially treat Hume's first definition of cause (in terms of regularity) as dominating the second (in terms of inference of the mind). This provides strong evidence that he is fundamentally committed to a regularity theory of *causation*, but so far leaves untouched its apparent tension with causal *necessity*.

§6 moves on to another later application of Hume's theory of causation, which in the *Enquiry* immediately follows the presentation of that theory, but in the *Treatise* is postponed until Book 2 (and as a result has been widely overlooked): his discussion of "liberty and necessity." This has already featured prominently in attacks on the New Hume (as briefly explained in §3.3), but here my focus is on a related but different aspect of that discussion—namely, Hume's provision of two definitions of *necessity* that mirror his two definitions of *cause*, but which he clearly sees as distinct. The upshot of these paired definitions is that *just as causation can be understood objectively in terms of the first definition of cause, so causal necessity can be understood objectively in terms of the first definition of necessity*. This neatly removes the fundamental tension that has so bedevilled the quest for a coherent Humean theory of causation and causal necessity, and thus achieves the main aim of this paper. It may seem implausible that such a protracted debate can be resolved so easily, but in §7, I explain that this simple solution has not been noticed because so many scholars have overlooked the relevant texts, which therefore have not featured in most of the discussions outlined in §2 and §3. The confident obituaries for the regularity interpretation noted above were thus premature and unjustified.

All this suggests that Hume's ultimate purpose, in his treatment of causation, was to establish a normative causal science based on the search for regularities in nature. Keeping this destination in view, §8 returns to his discussion "of the idea of necessary connexion," with §8.1 sketching an account of the two definitions as intended precisely to facilitate the transition from natural inference to normative science. The texts do not explain this transition, but the sketched account makes reasonable sense of the course of Hume's discussion, including the prominent allusion at T 1.3.14.31

to his distinction between natural and philosophical relations. §8.2 then attempts to reconcile the apparent subjectivism of Hume's *Treatise* account of necessary connexion with my claim that his primary goal was to reach an objectivist regularity position. Here I present evidence that such subjectivism does not represent Hume's considered position, because—contrary to both initial appearances and the assumptions of generations of scholars—it disappears from the *Enquiry*. This being so, the notoriously subjectivist passages in *Treatise* 1.3.14 can reasonably be considered as hyperbolic overstatement on Hume's part, which he later regretted and discarded.

§9 comes to the issue of *projection*, whose role within Hume's theory of causation is left undetermined by the discovery that he is a regularity theorist. Projection famously features within the discussion of necessary connexion at *Treatise* 1.3.14.25, but as §9.1 points out, Hume is here presenting it not as a positive part of his own account, but as an *error theory* to explain why readers are likely to have a "contrary biass." Thus it remains entirely possible—as explained in §9.2—that his own theory of necessity is objectivist and non-projective, along the lines earlier discussed in §6. This can be backed up from the text of the *Enquiry* (§9.3), whose first edition does not even mention projection, though Hume later extended a footnote discussing "the idea of *power*" so as to contrast his own account of that idea—very much in a regularity spirit—with the "vulgar, inaccurate idea" which involves projection of *sentiments* or *feelings*. But his clear rejection of this crude form of projection leaves open that he could instead endorse the more sophisticated *functional* projection favoured by Blackburn and other quasi-realist interpreters: projecting *inference of the mind* (rather than any *feeling*). This looks philosophically far more attractive, but as explained in §9.4, Hume ultimately seems not to take such a route, probably because of the limitations of his theory of ideas and his view of reflective impressions. It remains possible to *reinterpret* Hume in terms of functional projection, taking his identification of the "impression of necessary connexion" as insightfully anticipating a potentially promising theory. But Blackburn's particular way of developing that theory, understanding causal ascriptions quasi-realistically alongside judgments of morality, is seriously at odds with the contrast that Hume explicitly draws between these two domains. Indeed, we see in §9.5 that the very paragraph—in the *Enquiry concerning the Principles of Morals*[4]—which is most commonly taken as inspiration for the quasi-realist interpretation of *moral* judgments (EPM App. 1.21) tells decisively against placing *causal* statements within the same category.

The overall picture of Hume's theory of causation that emerges from this investigation is summed up in the concluding §10, which emphasises its simplicity compared with the far more sophisticated rival accounts that were developed during that revolutionary period from 1983 to 1990. The account is also relatively coherent, both within itself and with Hume's broader philosophical purposes, unlike the confused interpretations that dominated the previous two centuries. Most importantly of all, it clearly fits well with Hume's relevant texts and what we know of his life and

intentions. The would-be revolution can therefore be reversed, and the traditional Hume restored, as a classic empiricist and regularity theorist.

1. Introducing Hume's Texts, and the Objective/Subjective Tension

Hume's theory of causation is one of the most prominent and influential parts of his philosophy. In his 1739 *Treatise of Human Nature*, the bulk of Book 1 part 3 (the longest part of the entire work) is structured around an extended investigation into our idea of the causal relation, following the observation that it is of unique importance because it is the only one "that can be trac'd beyond our senses, and informs us of existences and objects, which we do not see or feel" (T 1.3.2.3). Hume accordingly undertakes to "explain . . . [t]his relation . . . fully," and just eight paragraphs later highlights "NECESSARY CONNEXION" as its elusive key component (T 1.3.2.11). Most of the rest of part 3 is devoted, at least ostensibly,[5] to tracking down the *impression* from which this key idea is derived, in accordance with Hume's "first principle" of T 1.1.1.7, commonly known as his *Copy Principle*, that all simple ideas are copies of impressions. The quest is eventually fulfilled within his discussion "Of the idea of necessary connexion" (T 1.3.14), where the long-sought impression turns out—surprisingly and even paradoxically—to be nothing that we perceive in the causally related objects themselves, but instead the customary inference that takes place *in our own minds* when we observe one of a pair of objects that we have previously found to be constantly conjoined: "Necessity, then, . . . is nothing but an internal impression of the mind, or a determination to carry our thoughts from one object to another. . . . The necessary connexion between causes and effects is . . . the transition arising from the accustom'd union" (T 1.3.14.20–21). This discovery prompts what I shall call Hume's ten *subjectivist paragraphs*, some of the best-known in his entire corpus,[6] where he seems to revel in his paradoxical conclusion that causal necessity "is something, that exists in the mind, not in objects" (T 1.3.14.22):

> [T]he ideas of necessity, of power, and of efficacy . . . represent not any thing, that does or can belong to the objects, which are constantly conjoin'd. (T 1.3.14.19)

> [T]he necessity or power . . . lies in the determination of the mind. . . . The efficacy or energy of causes is [not] plac'd in the causes themselves . . . but belongs entirely to the soul. . . . 'Tis here that the real power of causes is plac'd, along with their connexion and necessity. (T 1.3.14.23)

> [P]ower and necessity . . . are . . . qualities of perceptions, not of objects, and are internally felt by the soul, and not perceiv'd externally in bodies. (T 1.3.14.24)

> [T]he mind has a great propensity to spread itself on external objects, . . . [this] propensity is the reason, why we suppose necessity and power to lie in the objects

> . . . , not in our mind . . . ; notwithstanding it is not possible for us to form the most distant idea of that quality, when it is not taken for the determination of the mind, . . . (T 1.3.14.25)

> [I]f we . . . ascribe a power or necessary connexion to . . . objects; . . . we . . . must draw the idea of it from what we feel internally in contemplating them. (T 1.3.14.28)

Soon after, Hume declares that he will "collect all the different parts of this reasoning, and by joining them together form an exact definition of the relation of cause and effect, which makes the subject of the present enquiry" (T 1.3.14.30). This results in his famous *two definitions of cause*:

> We may define a CAUSE to be [1] "An object precedent and contiguous to another, and where all the objects resembling the former are plac'd in like relations of precedency and contiguity to those objects, that resemble the latter." . . . [2] "A CAUSE is an object precedent and contiguous to another, and so united with it, that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other." (T 1.3.14.31, numbered brackets added)

It is left unclear exactly how identification of the "impression of necessary connexion"—as customary inference of the mind in response to an observed constant conjunction—is supposed to lead to these two definitions, and also, how the two definitions are supposed to relate to each other. But roughly, it looks as though the first definition is attempting to capture the *objective* conditions that characterise a causal relation—i.e., constant conjunction between two types of event—while the second focuses instead on the *subjective* inference which is supposed to be the source of our idea of causal necessity. The two together thus encapsulate the two aspects of Hume's theory whose tension has generated such interpretative difficulties: on the one hand, objective regularity, and on the other, subjective inference.

Section 7 of the *Enquiry concerning Human Understanding* of 1748—likewise entitled "Of the idea of necessary connexion"—follows much the same overall pattern as *Treatise* 1.3.14, though with some refinements. The main discussion starts from a restatement of the Copy Principle (previously expounded and defended in section 2), enthusiastically recommending its potential philosophical value:

> It seems a proposition, which will not admit of much dispute, that all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to *think* of any thing, which we have not antecedently *felt*, either by our external or internal senses. . . . [By applying this proposition], men may reach a greater clearness and precision in philosophical reasonings. . . . [How] can we throw light upon [our most simple] ideas, and render them altogether precise and determinate to

> our intellectual view? Produce the impressions or original sentiments, from which the ideas are copied. . . . [B]y this means, we may . . . attain a new microscope or species of optics, by which, in the moral sciences, the most minute, and most simple ideas may be so enlarged as to fall readily under our apprehension, . . . (EHU 7.4)

The next paragraph accordingly sets the agenda for the rest of section 7, by starting the quest for the impression of "power or necessary connexion": "To be fully acquainted, therefore, with the idea of power or necessary connexion, let us examine its impression; and in order to find the impression with greater certainty, let us search for it in the sources, from which it may possibly be derived." (EHU 7.5). The quest finally succeeds at EHU 7.28,[7] and is usefully summarised at EHU 7.30:

> Every idea is copied from some preceding impression or sentiment; . . . In all single instances of the operation of bodies or minds, there is nothing that produces any impression, nor consequently can suggest any idea, of power or necessary connexion. But when many uniform instances appear, and the same object is always followed by the same event; we then begin to entertain the notion of cause and connexion. We then *feel* a new sentiment or impression, to wit, a customary connexion in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea which we seek for. . . . [T]his idea . . . must arise from that circumstance, in which the number of instances differ from every individual instance. But this customary connexion or transition of the imagination is the only circumstance, in which they differ.

The intervening paragraph presents the two definitions of cause in their *Enquiry* version (quoted and discussed in §8.1 below), which—though subtly different from the pair in the *Treatise*—seem to be playing the same role, with the first emphasising objective regularity, and the second, subjective inference. But again Hume's discussion leaves very unclear how these two aspects are supposed to fit together, and one might reasonably doubt whether they are mutually coherent.

2. Accepting the Tension: Hume Interpretation to 1980

Hume's early critical readers found his account of causation seriously confusing, attributing to him combinations of views which they took to be obviously false or even internally incoherent. The commonest objections involve six points, which can be combined into three pairs:[8]

(a) Hume claims that we have no idea of causal power; (b) yet clearly we do have such an idea.

(c) Hume claims that the efficacy or necessary connexion between cause and effect is only in the mind; (d) he thus denies, in effect, that there are any real causes at all.

(e) Hume himself, however, implicitly acknowledges that we do have an idea of power, and that there are real causes in nature; (f) but he overtly takes objective causation to involve no more than constant conjunction, an inadequate account which can be refuted by counter-examples.

James Beattie, writing in 1770, perhaps expresses most vividly how Hume's apparently subjectivist account of power, efficacy or necessary connexion seems to undermine any belief in objective causation:

> [W]hat we call the efficacy of a cause to produce an effect, is neither in the cause nor in the effect, but only in the imagination, . . . Has the fire a power to melt lead? No; . . . Have I a power to move my arm? No; . . . and what we call the power, or necessary connection, has nothing to do, either with the volition or with the motion, but is merely a determination of my fancy, or your fancy, or any body's fancy, to associate the idea or impression of my volition with the impression or idea of the motion of my arm.[9]

It is indeed hard to see how any such subjectivist view of causal necessity can fit coherently within a project whose declared aim is to establish an objective causal science of human nature.[10] Accordingly, Hume's early critics tended to see him more as a radical skeptic than as a constructive theorist.

This view of Hume as a negative skeptic was most influentially challenged by Norman Kemp Smith in 1941, who emphasised instead Hume's positive scientific "naturalism." But although Kemp Smith's overall perspective on Hume contains many important insights, his account of Hume's theory of causation in particular is vague and unconvincing, resolving the problematic tension only by radically severing the link between that theory and objective causation. He understands the main point of Hume's analysis as being to deny "the factor of inference" in our causal thinking rather than to "justify . . . a uniformity view of causation,"[11] and he takes real causation to be "presupposed throughout" in explaining that thinking,[12] but itself apparently never questioned or subjected to analysis. This account seems to have made little impression at the time, but in some respects it anticipated the skeptical realist interpretation which would become popular four decades later.

Those who wished to preserve a close connection between Hume's view of causation and his definitions, while avoiding skepticism or internal incoherence, mostly chose one of two different approaches.[13] David MacNabb and Terence Penelhum accepted Hume's two definitions of cause as genuinely intended to capture *the causal*

relation and *necessary connexion* respectively, but took the latter to be fundamentally subjective, and thus quite distinct from objective *causation-in-the-objects*:[14]

> Hume . . . does deny the existence of any power or necessary connexion *in objects*. . . . And . . . necessary connexion is an essential part of our idea of a causal relation between objects; but he denies that the idea of a necessary connexion *residing in the objects* is an essential part of our idea of a causal relation between them. On the contrary, he defines the causal relation in terms of temporal succession, spatial contiguity and constant conjunction of the *objects*, plus a customary transition of the *mind*. . . . The terms "necessity," "power," etc., refer . . . to a felt process in our own minds . . .[15]

> Hume does not think he is proving the subjectivity of causation, but . . . he does think he is proving the subjectivity of necessary connection. Causation as described in the first definition would still be a recurrent feature of the world if no one could observe the world; but the additional element that observers add to their common concept of causation would not.[16]

This approach offers some rationalisation of Hume's otherwise puzzling provision of two definitions, though it fits uneasily with his claim that the two present "a different view of the same object" (T 1.3.14.31). More fundamentally, however, it does nothing to ameliorate the implausibility of taking causation to be objective while necessary connexion is subjective, in a context where Hume initially introduces necessity as the key component that characterises a causal relation, then explicitly treats it as equivalent to a whole family of causal terms,[17] and repeatedly insists (both before and afterwards) that—in MacNabb's words—"necessary connexion is an essential part of our idea of a causal relation between objects."[18] For if the causal relation is genuinely to be understood as holding *between objects*, then why should the Humean philosopher—who has learned that "'necessity' . . . refer[s] . . . to a felt process in our own minds"—continue to view necessary connexion as an *essential* part of the idea of that relation?

The second popular approach was to avoid incoherence *within* Hume's theory by interpreting it as *attributing* incoherence to the ordinary person's causal thinking. Most influential here was Barry Stroud, who followed Kemp Smith's "naturalist" tradition of interpretation, but attempted to grapple far more precisely than Kemp Smith had done with Hume's own theory of causation:

> Hume argues that there is no necessity residing in objects—our belief that there is is actually false—but . . . [i]f we can have no idea of necessity as something residing in objects, and our only idea of it is as something that occurs or exists in the mind, then we cannot even have the false belief that necessity is something that is objectively true of the connections between objects . . .[19]

Soon after, A. J. Ayer concurred in drawing a similar conclusion: "We . . . succumb to the illusion that 'necessary connexion' is the name of a relation in which [phenomena] actually stand to one another."[20] But again, there is a serious tension here, and for similar reasons. This approach might be plausible if Hume's analysis of necessary connexion exhibited the same *debunking* spirit as his discussions of *substance* and *external body*, where problematic notions are diagnosed as bogus: products of imaginative confusion rather than respectable copies of impressions (as at T 1.4.3.2–5). But in the case of necessary connexion, Hume's quest for an impression-source delivers a positive identification, which he then uses as the basis for definition. This also fits with his way of introducing that quest, both in the *Treatise* (T 1.3.2.3, 11–13) and even more explicitly in the first *Enquiry*, where—as we saw in §1 above—Hume sets out to use his "new microscope or species of optics" to "throw light upon" and make us "fully acquainted . . . with" the relevant idea (EHU 7.4–5). As noted already, moreover, Hume afterwards continues to insist that necessary connexion—as thus clarified by his analysis—is "essential" to the idea of causation, which would make no sense on a debunking interpretation.

It is hardly surprising, then, that when these interpretations were dominant, many scholars considered Hume's view of causal necessity to be either deeply confused, fundamentally subjectivist, or quite possibly both. This no doubt helps to explain the enthusiasm with which sympathetic Hume scholars would later welcome two radically new approaches.

3. Seeking an Alternative Account of Objective Necessity

Between 1980 and 2000, two new interpretations were developed and quickly grew to prominence, both of which attempted to provide an objectivist account of Humean causal necessity that could vindicate truth-apt and observer-independent attributions of causal relations, without being undermined by the apparent subjectivism of Hume's account (as emphasised especially in those ten notorious paragraphs of *Treatise* 1.3.14). Instead of relying predominantly on Hume's central discussions of causation, these new approaches both took inspiration—and some crucial aspects of their textual support—from resources and analogies involving other areas of his thought. Thus on the one hand, *skeptical realism* appealed to Hume's theory of our belief in external objects, which treats such belief as involving "fictions" rather than bona fide impression-copied ideas, and thus appears to sanction a form of belief that goes beyond the empiricist limits of his Copy Principle. On the other hand, *projectivism* (encompassing *quasi-realism*) claimed a close analogy between Hume's theories of causation and morality, both supposedly involving "projection" and consequent objectification of internal impressions.

Let us now briefly examine the main features of these two interpretations, as presented by their primary advocates: skeptical realism in §3.1, and Blackburn's

quasi-realist projectivism in §3.2. Then §3.3 summarises the overall shape of the interpretative debate that has taken place since 1990, to prepare the ground for a fundamental reconsideration, which begins in §4.

3.1 Skeptical Realism and Objective Causal Powers

The skeptical realist interpretation, which comes in several flavours, aims to solve the apparent paradox in Hume's theory of causation by drawing a crucial distinction between the *genuine (objective) necessity* that characterises real causal relations, and the *merely apparent (subjective) necessity* of which we have an impression-derived idea. This radically departs from traditional readings in denying Hume's strict commitment to the Copy Principle, which seems to imply that "our thought [is] confined within very narrow limits" bounded by the extent of the ideas that become available to us as "copies of our impressions" (EHU 2.5, cf. T 1.1.1.7). Accordingly, the skeptical realist interpretation claims that we are able to contemplate *genuine* necessity or causal power, even though we have no such corresponding idea. So it is *realist* about the existence of that causal necessity and our ability to think about it, but *skeptical* about our understanding of it, since it lies entirely beyond the reach of our ideas.

This interpretation—and its name—originated with John Wright's 1983 book *The Sceptical Realism of David Hume*, though this initially focuses on Hume's theory of our belief in the external world—centered on *Treatise* 1.4.2, "Of scepticism with regard to the senses"—before turning to causation. In both cases, Wright argues that Hume's empiricism is far less strict than commonly supposed, countenancing beliefs—notably in external objects and objective powers—that go beyond impression-copied ideas. Wright's fourth chapter presents an extended defence of his claim that "Hume's arguments presuppose a fundamental belief that there are real causes in nature . . . those very sorts of necessary causes which we are unable to know on account of the inadequacy of our human ideas."[21] And here Wright exhibits numerous interpretative resources and manoeuvres that would later form much of the standard repertoire of skeptical realism: the claim that according to Hume we can *suppose* the existence of things we cannot *conceive*, by forming a "sort of fusion of ideas" including what Hume calls "fictions";[22] that Hume has a "special use of the term 'meaning' . . . tied up with our sense-derived ideas," thus opening the possibility of coherent thoughts that are in this narrow sense "meaningless";[23] that Hume acknowledges his two definitions of cause to be defective;[24] that Hume—in key passages—"*clearly assumes the existence of what is contradictory and meaningless according to our human ideas* . . . [namely] '*the ultimate principle*' which combines cause and effect";[25] that Hume considers "natural judgment" to be what leads us to suppose the existence of such "real causal forces in nature," despite their being "inconceivable to us";[26] and that this supposition involves mistaking strong customary association between our ideas for the actual inseparability (and hence inconceivability of the contrary) that characterises absolute necessities.[27]

1987 brought another strong attack on the interpretation of Hume as limiting our thoughts to impression-copied ideas, in the second chapter of Edward Craig's book *The Mind of God and the Works of Man*. Here Craig argues forcefully that understanding Hume as a strict empiricist or "embryonic positivist"[28] fundamentally misrepresents him in taking his primary interest to be in the analysis of concepts through tracing them to their empirical source. Instead, Craig sees Hume's primary purpose as being to attack "the dominant philosophy of the age, the Image of God doctrine taken in its cognitive version [that human reason] was the divine element in man."[29] This hidden agenda can explain, Craig suggests, why Hume sometimes appears muddled, because he is attempting "to force his analytic theory about ideas and their origin in impressions into a very uncomfortable and dubious relationship with his epistemological theory."[30] A prominent symptom of this muddle is Hume's apparently gratuitous assumption—throughout paragraphs 7 to 20 of *Enquiry* 7—that we cannot have an impression of power in various situations, on the basis that we are unable to infer an effect in advance of experience.[31] But at paragraph 28 Hume then changes tack, positively identifying an impression of power which ought to fail on that same criterion: "So careless is he about the detail of the conceptual branch of his theory, and that at the very moment of climax when the elusive impression is (supposedly) finally being revealed."[32]

Moving on to consider the two definitions of cause, Craig highlights passages where Hume seems to express a belief in objective powers and necessities, and he explains away Hume's apparent subjectivism elsewhere on the basis that "when Hume asks what an *X* is, . . . there is a vague tacit clause roughly along the lines of 'so far as *X* can concern, or be known to, or pointfully investigated by, the human mind.'"[33] Craig ends his chapter[34] with a blistering attack on the "general assumption" that Hume was "a forerunner of the logical positivist movement,"[35] particularly attacking the "prejudice . . . that Hume must have taken the theory of ideas and impressions seriously as a complete account of our thought-processes."[36] Here Craig highlights Hume's distinction between "conceiving" and "supposing"[37] and his references to "fictions,"[38] both of which—as previously noted by Wright—can potentially be used to explain how Hume could be prepared to countenance thought about causal necessities that go beyond our impression-derived ideas.

Although appearing later than the books of Wright and Craig, it was Galen Strawson's *The Secret Connexion: Causation, Realism, and David Hume* which in 1989 catapulted skeptical realism into widespread visibility. More forthright and direct than Wright, more focused and extensive than Craig, Strawson offered a work of nearly 300 pages devoted entirely to arguing against the traditional regularity interpretation, and in favour of what he took to be the opposing position that Hume was a firm believer in objective powers and necessities. Although Strawson initially wrote the book without knowledge of his predecessors—inspired, his Preface suggests, by teaching the *Enquiry* to Oxford undergraduates—he appeals to many similar

resources, notably the parallels that Wright also emphasises with Hume's treatment of the external world.[39] But he also adds some of his own, arguing that Hume "is too good a philosopher to hold such an implausible view" as the regularity account;[40] that the first *Enquiry* (which includes a higher proportion of references to "powers") should be taken "as more representative of Hume's considered views on causation that the *Treatise*";[41] and that Hume is "a strict sceptic with respect to knowledge claims."[42] More substantially, he maintains that specific content can be given to the genuine notion of *Causation* in objects—capitalised to indicate a notion that goes beyond Hume's two definitions[43]—as "something which . . . if we could really detect it holding between events, [would enable us to] get into a position in which we could make valid causal inferences a priori"; he calls this the "AP property."[44] Strawson also maintains that Hume could countenance coherent *reference* to such Causation—notwithstanding our lack of an impression-derived idea—by means of a *relative* idea, of the kind briefly mentioned at T 1.2.6.9, where Hume is explaining "the farthest we can go towards a conception of external objects, when suppos'd *specifically* different from our perceptions, . . ."[45]

After all these preliminaries, however, the heart of Strawson's case consists of an eight-chapter catalogue (extending over 70 pages) of Hume's usage—both in the *Treatise* and the *Enquiry*—of "referring expressions which look as if they refer to Causation in the objects."[46] As he works through these chapters, considering in turn around 60 quoted passages, Strawson's primary aim is to show how they can coherently and reasonably be interpreted in line with skeptical realism: as intended to refer to *real causal powers* in nature, but causal powers of which we have no understanding (for lack of any impression or idea of genuine AP necessity).

Coherence clearly fails at one point, however, where Strawson takes on board Hume's strong subjectivist statements about necessity from *Treatise* 1.3.14 that were highlighted in §1 above. Strawson acknowledges that these appear to support the interpretation of Hume as a causal subjectivist, "since any supposed causal power in objects has already been supposed to be a kind of necessity."[47] But in this respect, he claims, Hume is confused:

> [T]here is a confusion here, a confounding of two different things. . . . Hume . . . needs to differentiate *necessity*, understood in the strong, subjectivist way as something that is inevitably "only in the mind," from "the principle, on which [the] mutual influence of bodies depends" . . .—i.e., from Causation or *causal power* . . . He needs to distinguish *necessity* from *causal power* . . . to make the key epistemological and Sceptical point he keeps making [in passages previously quoted]: the point that there is (as he assumes) something in the objects, which one can call causal power or Causation, and whose nature is unknown to us, and which is the reason why things are regular in their behaviour. . . . If one accepts to call this something "necessity," and then thinks of all necessity in the extreme subjectivist way, one

> risks losing one's grip on this point. And Hume is pulled in this direction. But he continues, in the event, to recognize and appeal to the distinction between causal power and necessity just outlined. Thus he never actually uses the term "necessity" in the referring expressions which he uses to refer to Causation.[48]

Strawson's last sentence here is unconvincing, given how *Treatise* 1.3.14—while supposedly expounding that "extreme" subjectivism about necessity—freely alternates amongst the relevant terms, and conjoins "power" with "necessity" so as to suggest their equivalence in no fewer than eight paragraphs (including six of the subjectivist ten).[49] It is hard to see how this section can be interpreted as leading to subjectivism about *necessity* but not about causal *power*, when these terms are said to be "nearly synomimous" from the start (at T 1.3.14.4), and also treated as interchangeable throughout. Nor does Strawson offer any tenable criterion for distinguishing between the various referring expressions elsewhere in Hume's text. Hence his selection of some of these as being to [supposedly objective] *Causation or causal power*, while he ignores so many others that are contextually equivalent to [supposedly subjective] *necessity*, looks suspiciously like cherry-picking.

Despite its length and apparent complexity, the core of Strawson's case for his interpretation is essentially very straightforward. As illustrated above, he apparently takes for granted throughout that Hume's "idea of necessary connexion"—analysed in *Treatise* 1.3.14 and *Enquiry* 7—is unambiguously subjective. Accordingly, he sees any genuine Humean commitment to objective causation as *ipso facto* demonstrating that Hume has a notion of causal power which is entirely separate from the impression-derived idea of necessity; and it then follows that Hume is not fully constrained by the Copy Principle, which in turn supports the rest of the skeptical realist package. This presumably explains why Strawson puts such emphasis on that long catalogue of "referring expressions which look as if they refer to Causation in the objects," and why he repeatedly claims that some such reference "suffices to establish" his interpretation,[50] as though *any* positive reference by Hume to objective causation were enough to settle the case. But it seems odd that Strawson never questions his assumption that Humean "necessary connexion" is indeed subjective, given that the interpretation to which this leads him is, by his own admission, so confused and dubiously coherent.

3.2 Quasi-Realism and Objectivised Causal Attributions

Simon Blackburn's influential paper "Hume and Thick Connexions," which came hot on the heels of Strawson's book, explicitly sets itself in opposition to Wright, Craig, and Strawson. Yet the paper starts on a note of agreement, saying that skeptical realism is clearly better than the traditional "positivist interpretation . . . that Hume offered [the regularity theory] as a reductive definition of causation."[51] Blackburn

does not explain his reasons for saying this, though the puzzle from which his discussion begins, and the solution he proffers, strongly suggest an awareness of the serious difficulties afflicting the previous interpretations as discussed in §2 above.

Blackburn starts by identifying what he calls "a contradiction, to which Hume seems to be committed," centred on the combination of (1) the Copy Principle that all ideas are copies of impressions; (2) Hume's denial that we have any impression of a "thick" necessary connexion between distinct events, and (3) Hume's apparent explicit assertion that "We have an idea of a thick necessary connexion between distinct events."[52] Here a "thick" connexion is understood as involving "something in the events" beyond regular succession,[53] and the passage Blackburn quotes as apparently implying that we have such an idea occurs early in Hume's discussion, where (as noted in §1 above) he identifies "necessary connexion" as the elusive key component of the idea of causation:

> Shall we then rest contented with these two relations of contiguity and succession, as affording a compleat idea of causation? By no means. An object may be contiguous and prior to another, without being consider'd as its cause. There is a NECESSARY CONNEXION to be taken into consideration; and that relation is of much greater importance, than any of the other two above-mention'd. (T 1.3.2.11)

To the contrary, however, nothing in this passage requires that the "NECESSARY CONNEXION" in question should be "thick" rather than "thin"—Hume here implies that it is something in addition to *single instance contiguity and succession*, not something in addition to *constant conjunction*. This becomes even clearer at T 1.3.6.3, where "CONSTANT CONJUNCTION" is explicitly introduced into the discussion as "a new relation" in addition to *contiguity* and *succession*, with a clear reference back to T 1.3.2.11. Moreover, it seems highly unlikely that Hume would commit himself from the start to seeking the source of a "thick" idea of necessity, when he plans to declare success in that quest (at T 1.3.14.20) having identified an "impression" that cannot deliver such an idea.[54]

Blackburn's "contradiction" is therefore rather easy to avoid as it stands. However, it can be replaced fairly smoothly with an alternative way of framing the tension in Hume's position, by focusing on whether or not our impression or idea of connexion is of something *observer-independent* (rather than *thick*). This brings us back to the crucial tension outlined in §2 above, and seems to fit equally well with most of Blackburn's subsequent discussion, including his critical account of the skeptical realists' strategy. He describes this strategy as being to downplay Hume's denial that we have such an impression, by insisting that we can coherently think about the desired kind of connexion in a way that does not require any such impression (e.g., by means of a Strawsonian "relative idea").[55]

Blackburn's own alternative approach is to introduce "a third option," which posits that "a truer description of Hume on ordinary empirical causation would be that he is neither a Positivist nor a Sceptical Realist, but rather a not-so-sceptical anti-realist."[56] A footnote at this point adds the label "quasi-realist," the name under which Blackburn's interpretation is now generally known. He models this very closely on a parallel understanding of Hume's theory of ethics, seeing our acquisition of causal understanding as involving a *functional* change in the mind:

> [U]pon acquaintance with a regular succession the mind changes, but *not* by forming an impression or idea of anything not given in one instance alone. It changes *functionally*: it becomes organized so that the impression of the antecedent event gives rise to the idea of the subsequent event. No new aspect of the world is revealed by this change: it is strictly *nonrepresentative*, just like the onset of a passion . . . But once it takes place, we think of the events as thickly connected; we become confident of the association, we talk of causation, and of course we act and plan in the light of that confidence.[57]

The threatened contradiction is thus "sidestepped by distinguishing a representative idea of a connexion, which we do not have, from a capacity to make legitimate use of a term whose function is given nonrepresentatively, which we can have."[58] So even if the impression of necessary connexion is *subjective* and *observer-dependent*—and likewise the Humean idea that copies it—nevertheless we can *think about* causal connexion in a way that is *quasi-objective*, by ascribing the relevant terms to external events in a suitably disciplined manner. Thus when we think or talk of such events as causally connected, we *project* onto them a functional change in our expectations and inferential behaviour, "spreading our mind on external objects" in the famous terminology of *Treatise* 1.3.14.25. And when this thought and language is appropriately disciplined, we also earn the right to think of it as truth-apt. Interpreting Hume's theory of causation along these lines thus provides a neat way of squaring the acknowledged observer-relativity of the "impression of necessary connexion" (reflecting our subjective inferential behaviour), with causal attributions that appear to be observer-independent (as manifested, for example, in Hume's own researches within the science of man, noted in §4.2 below).

3.3 Debating the Alternatives

Blackburn's 1990 attack on skeptical realism was joined in 1991 by Kenneth Winkler's influential paper "The New Hume," whose title coined the name that quickly became common currency. Winkler's paper begins by disputing the significance that Strawson accords to Hume's apparently realist statements,[59] and then rejects at length Strawson's arguments concerning the scope and force of the theory of ideas,

in particular his claim that Hume made room for "suppositions" of which we have no ideas.[60] It then goes on to challenge Strawson's appeal to Humean "natural belief" as a mechanism that could irresistibly lead us to "the belief in objective necessary connexions . . . on a par with the belief in external objects",[61] and his allegation that the "Old Humean" position is dogmatically inconsistent with "strict scepticism." Against this allegation, Winkler says "It never occurs to Strawson that Hume's scepticism may consist in a *refusal to affirm* the existence of real powers."[62] Next, Winkler rejects Strawson's claim that Hume, at EHU 7.29, should be read as acknowledging that his two definitions of cause are "imperfect,"[63] and he rebuts—by reference to various Hume contemporaries—Strawson's suggestion that the traditional regularity interpretation became established owing to the rise of positivism.[64] Following a brief discussion of Hume's response to occasionalism[65] and the influence of Berkeley,[66] the paper ends "by recalling two of the many passages that support the Old Hume," from T 2.3.2.4 and EHU 8.22n18. In context, this conclusion reads like an afterthought, but as we shall see later, Winkler has here identified two passages of major significance for clarifying Hume's theory of causation.

In 2000, Rupert Read and Kenneth Richman brought out their *New Hume Debate* collection, including the Blackburn and Winkler papers, and inviting the major defenders and opponents of skeptical realism to make new contributions (alongside papers from several other participants). Of particular interest to us here are the interactions between Blackburn and Craig, and between Winkler and Wright. Blackburn contributes a postscript to his 1990 paper, discussing the boundaries of "realism" and clarifying his view that Hume is a "lower-case realist" but "upper case anti-Realist" about both causation and ethics.[67] Craig explores the possibility of combining "Blackburnian projectivism and Strawsonian realism,"[68] recommending that projectivism and realism be understood as aiming to explain different things, respectively "how we come to engage in the causal practice, or to hold causal beliefs" and "the underpinnings of the regularity" that we find in nature.[69] Although Blackburn's and Craig's positions are still some way apart, it is striking that both of them now emphatically dismiss the traditional regularity (or reductionist) interpretation as no longer a serious contender: Blackburn remarks that "Hume is now agreed by all serious interpreters not to be a reductionist about causation,"[70] while Craig says "Off the agenda now is the idea that [Hume] taught a strict regularity theory."[71]

Winkler, like Blackburn, adds a postscript to his earlier paper. This focuses particularly on the issue of *intelligibility*, and addresses mainly Wright (and Michael Ayers) rather than Strawson. Meanwhile Wright attacks Winkler's "New Hume" paper, starting with "an odd irony" that although "Winkler ends up claiming that Hume closes off the possibility of any kind of belief or even speculation about objective causal powers,"[72] nevertheless earlier in the paper—in both the introduction and the section on Hume's skepticism—Winkler seems keen to leave open (as quoted above) that Hume might be *agnostic* about objective necessity. This attack

on Winkler is pushed further by Peter Kail in a paper added to the 2007 revised edition of *The New Hume Debate*, which highlights that a mere "*refusal to affirm* the existence of real powers" would yield a position more closely allied to the New than to the Old position. As Kail says, the traditional interpretation claims "that there can be no genuine thought . . . unless there is an idea related to some appropriate impression . . . , and where there is no thought the very possibility of the existence issue cannot be raised."[73] So if Winkler indeed takes Hume to be agnostic on the existence issue, then he must acknowledge that Hume allows at least some thought beyond the limits of impression-copied ideas, and the New Hume triumphs.[74]

This apparently removes any possibility of compromise between the traditional and skeptical realist interpretations, although Craig—who, like Blackburn, considers the traditional reading to be generally abandoned—is advocating a compromise between skeptical realism and projectivism (a position developed in detail in Chapter 5 of Kail's *Projection and Realism in Hume's Philosophy*[75]). But meanwhile, another new paper in the revised edition, my own "Against the 'New Hume,'" takes a very different line, attempting to refute all of the prominent arguments for skeptical realism, and instead favouring quasi-realist projectivism as the best alternative amongst "various Humean conceptions of 'power'" that are consistent with the texts.[76] Many of my critical points there echo and supplement Winkler's attack on the "New Hume."[77] But I focus additionally on two substantial issues that had previously played little role in the debate: first, the questionable consistency between Hume's Conceivability Principle and any supposed aprioristic understanding of "thick" connexions (such as Strawson's "AP" conception);[78] and secondly, Hume's applications of his analysis of causation within arguments later in the *Treatise*, specifically on materialism (T 1.4.5.29–33) and "liberty and necessity" (T 2.3.1–2). My penultimate section[79] recalls the conclusion of Winkler's paper, which (as noted above) quotes a passage from T 2.3.2.4 where Hume appears to be arguing *against* any sort of skeptical realist position, though I suggest that this passage "carries far more weight when viewed, not as an isolated piece of evidence, but in its original context within Hume's discussion of liberty and necessity."[80] Accordingly, I quote[81] Hume's key argument from that discussion as summarised elegantly in the 1740 *Abstract*, couched in wording that echoes Winkler's quoted passage:

> [T]he . . . advocates for free-will [of the kind that Hume denies, notably Samuel Clarke] must allow this union and inference with regard to human actions. They will only deny, that this makes the whole of necessity. But then they must shew, that we have an idea of something else in the actions of matter; which, according to the foregoing reasoning, is impossible. (Abs. 34)

So in Winkler's words, "*to believe that there is something else in the operations of matter is to disagree with [Hume]*."[82] Moreover, as my paper emphasises, Hume's analysis

of necessity must apparently be interpreted *semantically* to make sense of this key argument.[83] For that analysis engages with this argument precisely by ruling out any alternative understanding of causal necessity—such as might attribute some deeper kind of necessity to "the actions of matter"—for want of any alternative impression (or, consequently, idea). And this point becomes even more forceful in respect of the first *Enquiry*, where "there is an evident and entirely deliberate link between Sections VII and VIII—'Of the Idea of Necessary Connexion' and 'Of Liberty and Necessity.'"[84] The paper ends by suggesting that the problem of explaining the link between these topics is the strongest, and potentially decisive, challenge to the skeptical realist interpretation.

Judging by developments since then, this suggestion appears to be on target. In 2009, I developed my case in "Hume, Causal Realism, and Causal Science,"[85] which particularly stressed how Hume uses his analysis of causation to achieve *positive* causal results and to support causal science, especially in the human sphere—thus countering the claim that realism about causes would require some sort of "New Hume" interpretation. This paper also expanded on what I took to be the strongest considerations against that interpretation, regarding modality and conceivability,[86] Hume's discussion of materialism,[87] and especially his five-times repeated argument on "liberty and necessity."[88] Meanwhile, skeptical realist responses to this key challenge had appeared from Helen Beebee ("The Two Definitions and the Doctrine of Necessity"), Kail ("How to Understand Hume's Realism"), and Wright (*Hume's "A Treatise of Human Nature"*), but I answered these in my "Hume, Causal Realism, and Free Will" of 2011. As far as I am aware, the last decade has seen no significant attempt to respond to this, and indeed, a general consensus seems to have emerged amongst Hume scholars against skeptical realism. For example, Walter Ott finishes a brief review of the 2011 paper with the sentence: "I am not alone in thinking the New Hume debate has run its course; as Millican says at the end of his essay, 'it is time to call it a day.'"[89] Likewise, Donald Ainslie remarks in a 2012 review that "Kenneth Winkler [1991], Peter Millican [2009], and others have offered persuasive rebuttals of [the skeptical realist] position over the past 20 years."[90] My sense from discussion with other scholars confirms that this view is widespread.[91]

The decline of skeptical realism might seem to have left Blackburn's quasi-realist projectivism in possession of the field, given the previously broad consensus that (in his words) "Hume is now agreed by all serious interpreters not to be a reductionist about causation." Indeed, projectivism had meanwhile acquired further strong support from Angela Coventry's *Hume's Theory of Causation* (subtitled "a quasi-realist interpretation," published in 2006), and to some extent from Beebee's book of the same year, *Hume on Causation*, though Beebee suggested that Hume is unambiguously projectivist only in the *Treatise*, tending more towards skeptical realism in the *Enquiry*. While expressing this ambiguity about the newer interpretations, however, Beebee was as forthright as Blackburn and Craig in rejecting the regular-

ity interpretation, asserting in a subsequent overview article: "The major problem with the traditional interpretation is an almost total lack of evidence in its favour," and concluding "that the traditional interpretation, in all its forms, is untenable."[92] That article evinced no awareness of the very serious problems that had meanwhile emerged for skeptical realism, but anyone looking at the big picture with those problems in mind might now have anticipated a complete victory for projectivism, with Blackburn, Coventry, and myself all supportive, while Beebee, Craig, and Kail were at least semi-supportive.

My aim in the rest of this paper is to reverse this verdict. Against it, I shall argue that the traditional regularity interpretation should never have been rejected in the first place, because the objections to it—mainly deriving from an over-emphasis on the ten subjectivist paragraphs of *Treatise* 1.3.14—are weak, and the evidence in favour—despite Beebee's claim to the contrary—considerable. And I shall maintain that projectivism, though plausibly contributing to Hume's *psychological* account of our causal thinking, is far less plausible as representing his view on the *metaphysics* of causation, where Hume is unambiguously *realist* rather than merely *quasi-realist*.

4. How Hume Applies his First Definition of Cause

Some of the strongest evidence for the regularity interpretation comes from how Hume *applies* his analysis of causation—especially the first definition of cause—in three places: at the end of *Treatise* 1.3.14 (§4.1 below), in *Treatise* 1.3.15 (§4.2), and in paragraphs 30 to 33 of *Treatise* 1.4.5 (§4.3). These all contain clear references (either explicit or implicit) back to his definitions, but they have mostly been neglected within the long interpretative debate summarised in §2 and §3 above, by contrast with the huge attention paid to the passages leading up to the two definitions. What we find when we examine these later passages is a consistent picture of Hume appealing to his account of causation in terms of regularity, to draw important conclusions about the nature of causation and causal necessity, and about the methodology of causal science. This straightforwardly contradicts Beebee's claim that the regularity interpretation lacks textual support, and strongly indicates that Hume considers his first definition of cause to be indeed definitive, a point that will be developed further in §5 below.

4.1 Corollaries of the Two Definitions

Immediately after setting out his two definitions of cause, Hume proceeds to draw some "corollaries" from them:

> First, . . . that all causes are of the same kind, and that in particular there is no foundation for that distinction, which we sometimes make . . . betwixt efficient causes, and formal, and material, and exemplary, and final causes. For as our idea

> of efficiency is deriv'd from the constant conjunction of two objects, wherever this is observ'd, the cause is efficient; and where it is not, there can never be a cause of any kind. For the same reason we must reject the distinction betwixt cause and occasion. . . . If constant conjunction be imply'd in what we call occasion, 'tis a real cause. If not, 'tis no relation at all, . . . (T 1.3.14.32)

Likewise, it follows "that there is but one kind of [causal] *necessity*, . . . and . . . that the common distinction betwixt *moral* and *physical* necessity is without any foundation in nature" (T 1.3.14.33). Thirdly, it is now clear why the Causal Maxim cannot be proved *a priori*, because nothing in either of the two definitions implies it. And finally:

> I shall add as a *fourth* corollary, that we can never have reason to believe that any object exists, of which we cannot form an idea. For as all our reasonings concerning existence are deriv'd from causation, and as all our reasonings concerning causation are deriv'd from the experienc'd conjunction of objects . . . , the same experience must give us a notion of these objects. (T 1.3.14.36)

These paragraphs confirm that Hume is committed to his two definitions as giving a *correct* account of causation, with sufficient confidence to draw several bold and immediate conclusions from them.

4.2 The Rules of Treatise 1.3.15

After the corollaries just discussed, the very next section of the *Treatise* is entitled "Rules by which to judge of causes and effects," introducing these important rules as follows:

> According to the precedent doctrine, there are no objects, which by the mere survey, without consulting experience, we can determine to be the causes of any other; and no objects, which we can certainly determine in the same manner not to be the causes. Any thing may produce any thing. Creation, annihilation, motion, reason, volition; all these may arise from one another, or from any other object we can imagine. Nor will this appear strange, if we compare two principles explain'd above, *that the constant conjunction of objects determines their causation*, and *that properly speaking, no objects are contrary to each other, but existence and non-existence*. Where objects are not contrary, nothing hinders them from having that constant conjunction, on which the relation of cause and effect totally depends.
>
> Since therefore 'tis possible for all objects to become causes or effects to each other, it may be proper to fix some general rules, by which we may know when they really are so. (T 1.3.15.1–2)

Here we see a forthright statement that Hume's rules are able to determine when objects "really are" causes or effects to each other, but also, that these rules derive from the "precedent doctrine"—enunciated in the previous section—"*that the constant conjunction of objects determines their causation*." The doctrine is then repeated in slightly different words: "the relation of cause and effect totally depends" on the relation of "constant conjunction." And since from an *a priori* point of view, anything could turn out to be constantly conjoined with anything else, the only way of discovering which constant conjunctions *actually* obtain is by analysing our observations with the help of Hume's rules.

As for the rules themselves, the first three essentially duplicate the first definition of cause, requiring in turn *contiguity*, *priority*, and *constant union* between cause and effect (T 1.3.15.3–5). The third rule also stresses that "'Tis chiefly this quality [i.e., *constant union*] that constitutes the relation [of cause and effect]" (T 1.3.15.5). The fourth rule (T 1.3.15.6) then clarifies that Hume understands such constancy as applying in both directions: "The same cause always produces the same effect, and the same effect never arises but from the same cause."[93] This in turn underlies the fifth and sixth rules (T 1.3.15.7–8), which respectively enjoin us to look for common elements in different causes that produce the same effect, and for differing elements where the effects are different. The seventh rule recommends that we consider correspondingly varying causes and effects as compounds, saying that with respect to the proportional parts of each, "This constant conjunction sufficiently proves, that the one part is the cause of the other" (T 1.3.15.9). Finally, the eighth rule spells out an implication of the requirement of temporal contiguity, "that an object, which exists for any time in its full perfection without any effect, is not the sole cause of that effect" (T 1.3.15.10).

All of these rules seem to be understood as derived from the first definition of cause, and Hume's clear endorsement of them is evident not only from the prominence he gives them—as the culmination of his long analysis of causation—but also from his own use of them (most explicitly at T 2.2.8.4, and also 1.3.12.16 which is quoted in §5 below). Hume's lifelong personal commitment to empirical investigation—and thus to causal inference—is evident in his texts, starting from the subtitle of the 1739 *Treatise* as "*an attempt to introduce the experimental method of reasoning into moral subjects*,"[94] and continuing until the last few paragraphs of the first *Enquiry*, whose posthumous 1777 edition includes corrections added when he was on his deathbed. As he says there, "All [non-mathematical] enquiries . . . regard only matter of fact and existence, and these are evidently incapable of demonstration. . . . The existence of any being can only be proved by arguments from its cause or its effect" (EHU 12.28–29). The rules of *Treatise* 1.3.15—representing Hume's attempt in 1739 to formalise how such arguments from cause or effect ought to work—therefore assume huge significance in understanding his overall philosophy.

4.3 The Materialist Argument of Treatise 1.4.5

Part 4 of Book 1, which is devoted mainly to skeptical topics, contains no direct reference to the definitions of cause,[95] but it does include five instances of the phrase "constant conjunction." All of these occur within an important argument at *Treatise* 1.4.5.30–33, which also draws explicitly on T 1.3.15.1 (as quoted above) to reassert that we cannot know causal relations *a priori*:

> [W]e are never sensible of any connexion betwixt causes and effects, and . . . 'tis only by our experience of their constant conjunction, we can arrive at any knowledge of this relation. Now as all objects, which are not contrary, are susceptible of a constant conjunction, and as no real objects are contrary; [footnote to 1.3.15] I have inferr'd from these principles, that to consider the matter *a priori*, any thing may produce any thing, and that we shall never discover a reason, why any object may or may not be the cause of any other, however great, or however little the resemblance may be betwixt them. (T 1.4.5.30)

The next two paragraphs argue for the converse positive claim—that observed regularities can indeed establish causal relations: "Thus we . . . necessarily [conclude] that all objects, which are found to be constantly conjoin'd, are upon that account only to be regarded as causes and effects" (T 1.4.5.32). Hume accordingly both refutes the anti-materialist argument that matter and motion cannot conceivably be the cause of thought, and then goes on to assert, to the contrary, that "matter and motion may often be regarded as the causes of thought," on the basis that "the constant conjunction of objects constitutes the very essence of cause and effect" (T 1.4.5.33) and given his previous observation that "we . . . may perceive a constant conjunction of thought and motion," as for example when "the different dispositions of [our] body change [our] thoughts and sentiments" (T 1.4.5.30).

5. The Dominance of the First Definition

In the passages just discussed from *Treatise* 1.3.15 and 1.4.5, it is clearly the first definition of cause (framed in terms of constant conjunction) that is doing the work when it comes to ascribing causes and effects, while the second definition (framed in terms of inference of the mind) is playing no role. Hume's rules of T 1.3.15 involve only objective regularity relations, with not the slightest hint that in reflectively assigning causes, we should give independent weight to our own naïve inferential tendencies. Indeed an earlier passage, placed shortly after a forward reference to them as "general rules, by which we ought to regulate our judgment concerning causes and effects" (T 1.3.13.11n25), states explicitly that "wise men" are "commonly guided" by them to avoid the prejudices of the "vulgar" (T 1.3.13.12). Hume thus clearly recommends inference based on observed regularities rather than on naïve inclination.

Likewise, the anti-materialist argument of T 1.4.5 employs a criterion of causation which is based entirely on constant conjunction, and could hardly be more explicit: "all objects, which are found to be constantly conjoin'd, are upon that account only to be regarded as causes and effects." Here the fact that Hume's opponents may have no inclination whatever to draw causal inferences from "matter and motion" to mental activity counts for nothing if the constant conjunction obtains. Again, therefore, it seems that regularities alone are relevant when we reflectively "judge of causes and effects": the first definition unambiguously dominates the second. And indeed, although Hume has previously presented his second definition of cause in terms of "inference of the mind," he *never* concludes that a disposition to make such inference gives proof (or even solid evidence) of a corresponding causal relation. Nor does he take the lack of such an existing disposition to imply lack of causality.

Looking back earlier in the *Treatise*, the principle of the first definition—that causal relations are characterised by (and can be identified through) constant conjunctions—has already been foreshadowed long before the definition is formally presented, for example at T 1.1.1.8, 1.3.6.2–3, and 1.3.6.16. It then emerges more explicitly in Hume's discussion of probability, with an almost *verbatim* anticipation of his seventh "rule" (T 1.3.15.9) as applied to the causes of probable belief:

> The absence or presence of a part of the cause is attended with that of a proportionable part of the effect. *This connexion or constant conjunction sufficiently proves the one part to be the cause of the other* . . . 'tis to be consider'd as a compounded effect, of which each part arises from a proportionable number of chances or experiments. (T 1.3.12.16, emphasis added)

The same spirit infuses a slightly earlier passage, which draws a contrast between "the vulgar"—who are content to treat superficially variable events as unpredictably chancy—and more rational "philosophers"—who systematically search for hidden causes to explain the variation:

> [T]he vulgar, who take things according to their first appearance, attribute the uncertainty of events to such an uncertainty in the causes, as makes them often fail of their usual influence. . . . But philosophers observing, that almost in every part of nature there is contain'd a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find that 'tis at least possible the contrariety of events may not proceed from any contingency in the cause, but from the secret operation of contrary causes. This possibility is converted into certainty by farther observation, when they remark, that upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual hindrance and opposition. (T 1.3.12.5)

As with Hume's rules, it is systematic observation and the discovery of regularities that reveals "the secret operation of contrary causes," not vulgar inferential behaviour. And where such hidden causes cannot be identified, leaving superficial inconstancies unaccounted for, we will often have to make do with judgments of *probability* based on experienced frequencies—what *Treatise* 1.3.12 calls "probability of causes."

All of these themes are repeated in the *Enquiry*, where the discussion of "probability of causes" is condensed into EHU 6.4, while EHU 8.13 copies T 1.3.12.5 almost *verbatim*. More extensively, the bulk of the first part of the foundational section 4 is devoted to a lengthy argument (EHU 4.6–13) for a "general proposition, which admits of no exception," that "knowledge of cause and effect . . . is not, in any instance, attained by reasonings *a priori*, but arises entirely from experience, when we find, that any particular objects are constantly conjoined with each other" (EHU 4.5–6). Later, in section 10, Hume's critical discussion of miracle stories—which had been prudentially excised from the *Treatise*[96]—famously recommends that we follow the example of the "wise man" who "proportions his belief to the evidence" (EHU 10.4), reflectively conforming our predictions to experienced regularities, potentially in opposition to unthinking credulity, prejudice, inclination, or indoctrination. Thus in both the *Treatise* and the *Enquiry*, *regularity—the theme of the first definition of cause—utterly trumps naïve prediction—the theme of the second.*

Many interpreters have been very puzzled as to why Hume should feel a need to frame two definitions of cause. Having proffered the two definitions, however, it might seem even more anomalous that he should then ascribe one of them priority over the other.[97] But "definition" in the eighteenth century seems to have been a looser notion than would be expected by a contemporary analytic philosopher, and there is no good reason to suppose that Hume's two definitions must be intended to provide necessary and sufficient conditions for the application of the same concept (in which case, they would obviously have to be coextensive if the concept is to be well-defined).[98] In Hume's case, moreover, there is a natural explanation why he might consider two definitions to be required in cases where the concept being defined involves some particular simple *idea*. For in such cases there are two distinct aspects of understanding to be captured: not only *the appropriate criterion for the concept's application*, but also *the genesis and nature of the idea in question, as revealed by its originating impression*. This plausibly helps to explain Hume's procedure in his discussion "of the idea of necessary connexion," and also why the criterial definition would take precedence over the genetic definition.

This last suggestion might seem a bit speculative or ad hoc if the discussion of necessary connexion were the only such example to be found in Hume's works, but it can be corroborated by a striking parallel between the two definitions of cause and the two definitions of *virtue* or *personal merit* which Hume provides in the second *Enquiry*.[99] One of these is based on the characteristic "pleasing sentiment of appro-

bation" (EPM App. 1.10) that yields our idea of moral approval; the other on the circumstances that standardly give rise to that sentiment, namely "the possession of mental qualities, useful or agreeable to the person himself or to others" (EPM 9.1, cf. 9.12). And the intended upshot seems to be that although the idea in question derives from an internal impression or sentiment, it is best ascribed *reflectively* through the rational application of criteria of utility, even though this is liable to diverge from the ascriptions that we might make spontaneously on the basis of immediate feeling.[100] Thus again the "objective" definition—in terms of mental qualities and their utility—takes precedence, in being used as a basis for judging which qualities of mind should be counted as *genuine* virtues, and by contrast, which *supposed* (e.g., "monkish") virtues we should instead reject (or even "transfer . . . to the opposite column, and place . . . in the catalogue of vices" [EPM 9.3]).

Even if all this is accepted, it does not entirely remove the difficulty of understanding Hume's account "of the idea of necessary connexion," and how exactly his identification of the corresponding "impression" is supposed to generate an objective criterion for the application of that idea. These matters are hard to resolve—and might indeed have no definitive resolution—owing to the brevity, vagueness, and unclarity of Hume's account, and the possibility that his position is itself confused. We shall return to these tricky interpretative questions in §8 below, but for present purposes, the crucial point—which by contrast is now very solidly established—is that whatever the exact relation between the two definitions may be, Hume clearly views the first, rather than the second, as the appropriate criterion for identifying a causal relation.

6. The Two Definitions of Necessity, and Its "Very Essence"

We have now seen ample evidence to confirm that *Hume takes causal relations to be objective and observer-independent*, despite his provision of a second "subjectivist" definition of cause. Accordingly, *he clearly believes that when the two definitions come apart, the first "objective" definition should dominate in our attribution of causes and effects*. These points strongly suggest that Hume is some sort of regularity theorist about *causation*, but they are insufficient so far to defend the regularity interpretation from the charge of incoherence, because they do not remove the shadow of the fundamental tension discussed in §1 and §2 above, that Hume appears to understand *causal necessity* in a subjectivist way that pulls it apart from the objectivist causation to which it is supposed to be "essential." The key to resolving this problem, however, is close at hand, because *the two claims about causation that are italicised above can also be made about causal necessity*: it too is subject to two definitions, and *here too the objective definition dominates in respect of the ascription of such necessity*.

The two definitions of necessity occur within the sections on "liberty and necessity" in both the *Treatise* and the *Enquiry*. They are first introduced implicitly, after

a brief summary (not quoted here) of how the idea of necessary connexion arises in terms of observed uniformity and customary inference:

> Here then are two particulars, which we are to consider as essential to necessity, viz. the constant *union* and the *inference* of the mind; and wherever we discover these we must acknowledge a necessity. (T 2.3.1.4)

> These two circumstances form the whole of that necessity, which we ascribe to matter. Beyond the constant conjunction of similar objects, and the consequent inference from one to the other, we have no notion of any necessity, or connexion. (EHU 8.5)

Only later are these two factors said to "define" necessity:

> I DEFINE necessity two ways, conformable to the two definitions of *cause*, of which it makes an essential part. I place it either in the constant union and conjunction of like objects, or in the inference of the mind from the one to the other. (T 2.3.2.4)

> Necessity may be defined two ways, conformably to the two definitions of *cause*, of which it makes an essential part. It consists either in the constant conjunction of like objects, or in the inference of the understanding from one object to another. (EHU 8.27)

Most explicit, however, is Hume's own index to the *Enquiry*, which refers to EHU 8.5 and EHU 8.27 under the heading "NECESSITY, its definition," while referring to EHU 7.29 and 8.25n19 under the earlier heading "CAUSE and EFFECT . . . Its Definition." Thus Hume's quite separate definitions of *cause* and of (causal) *necessity* are clearly deliberate: neither the separation nor apparent repetition involves any sort of carelessness or oversight. And the latter definitions play a prominent role in his main argument "of liberty and necessity," enabling him to insist that we can have no *other* concept of necessity beyond what is captured by them. In this way, as already noted in §3.3, Hume purports to refute any metaphysician (such as Samuel Clarke) who claims to have a concept of "physical necessity" that amounts to "something else in the actions of matter." Here we see another very important later application of Hume's theory of causation, to add to those in §4.1 to §4.3 above.

There is an obvious similarity between this new pair of definitions and the two definitions of cause given earlier (at T 1.3.14.31 and EHU 7.29), and this close parallel is unsurprising, given that Hume sees causal necessity as essentially characterising causal relations. There are some differences too, in that these new definitions make no mention of contiguity or priority, and they do not refer to a specific *object* as their target (in contrast to the *cause* identified within the earlier definitions). But what we clearly have here are paired definitions of *causal necessity*, one in terms of "constant conjunction" and the other in terms of "inference of the mind." And it is

natural to read this new pair of definitions in the same sort of way as the definitions of cause: understanding the second as identifying the "impression" from which the crucial idea is derived, and the first as the criterion for correctly applying that idea. In the context of Hume's sections "Of liberty and necessity," however, the balance between these roles turns out to be different from what we saw in the texts discussed in §4 and §5 above. Certainly, the objective definition is still normatively dominant *when ascribing causal necessity* (as for example at T 2.3.1.12 and EHU 8.13–15), but now the subjectivist definition is alluded to repeatedly, and the two definitions are frequently combined. The obvious reason for this change of emphasis is that here Hume is attempting not only *to advocate regularity-based causal science in the moral sphere*, but also—and even more explicitly—*to circumscribe the limits of our understanding of causal necessity, by reference to his identification of the key impression and the circumstances in which it arises*. Thus *both* definitions must be taken into account.

Hume's attempt to combine these roles through his paired definitions of cause and necessity is problematic, as we shall explore further in §8.1 below. But leaving aside such interpretative complications, the key point for our present purpose of understanding his view of causation is that *if causal necessity itself is subject to two definitions*—one in terms of regularity and one in terms of inference—*then it cannot be tenable to split apart Hume's two definitions of cause by taking the first to be concerned with objective causation and the second with subjective necessity*.[101] And if his first definition of *cause* in terms of regularity makes *that* an objective notion, then it looks as though his first definition of *necessity*—also in terms of regularity—should make *that* equally objective.

The two definitions of causal necessity thus remove the tension that so many interpreters have claimed to find in Hume, between causal objectivism and modal subjectivism. For if he provides parallel definitions of cause and of necessity, then there is no plausible way that he can be objectivist about the former, while being subjectivist about the latter. This also makes sense of Hume's repeated insistence that necessity is *essential* to causation (including in the passages from T 2.3.2.4 and EHU 8.27 just quoted above): if causation and causal necessity are both characterised by the same regularity, then of course they will go together. There is no tension remaining here.

Together with the results of §5 above, we now have Hume committed to a three-way coincidence between objective constant conjunction, causal relation, and causal necessity. Happily, he himself confirms the third side of this triangle explicitly and repeatedly:

> This multiplicity of resembling instances . . . constitutes the very essence of power or connexion, . . . (T 1.3.14.16)

> [T]his uniformity forms the very essence of necessity. (T 2.3.1.10)

> [T]his constancy forms the very essence of necessity, nor have we any other idea of it. (EHU 8.25n19)

Hume's usage of "very essence" elsewhere strongly suggests that he understands this as meaning a *defining characteristic*.[102] So here Hume is saying that constant conjunction is definitive of causal necessity, just as it is definitive of causal relation.

7. Rectifying a Scholarly Imbalance

Before moving on to discuss less well-evidenced aspects of Hume's theory of causation, I would like to draw a line under what I take to be a solid result of the discussion thus far, namely, *that there is strong textual evidence that Hume considers both causal relations and causal necessity to be defined by regularities, and hence to be every bit as objective as the constant conjunctions that constitute their "very essence."* So the tension identified in §1 above, which blighted the accounts of previous generations of scholars (as we saw in §2), thereby motivating a search for new readings such as the skeptical realist and projectivist interpretations (as discussed in §3), turns out to be resolvable relatively easily without resorting to either of these would-be revolutionary alternatives.

It might seem surprising that such a long-standing scholarly conundrum can be resolved so easily, and this might naturally provoke skepticism. I hope that such skepticism might be allayed by considering the extensive background to the scholarly debate that was sketched earlier in this paper, from which it can be seen how the points argued in §4, §5, and §6 bring a significant new dimension to that debate, and yet are highly relevant to the questions at issue. But to confirm and emphasise the extent to which the texts cited in those sections have previously been overlooked within the debate, it may help to provide some statistics to back this up.

Here, then, is a list of the twenty most explicitly "objectivist" passages that support the regularity interpretation of Hume on causation, divided into four categories:

(a) Experienced Constant Conjunction as Evidence of Causation

(1) "This connexion or constant conjunction sufficiently proves the one part to be the cause of the other" (T 1.3.12.16).

(2) "all our reasonings concerning causation are deriv'd from the experienc'd conjunction of objects" (T 1.3.14.36).

(3) "This constant conjunction sufficiently proves, that the one part is the cause of the other." (T 1.3.15.9).

(4) "'tis only by our experience of [objects'] constant conjunction, we can arrive at any knowledge of [their causation]" (T 1.4.5.30).

(5) "all objects, which are found to be constantly conjoin'd, are upon that account only to be regarded as causes and effects" (T 1.4.5.32).

(6) "knowledge of cause and effect . . . is not, in any instance, attained by reasonings *a priori*, but arises entirely from experience, when we find, that any particular objects are constantly conjoined with each other" (EHU 4.5–6).

(b) Constant Conjunction as Definitive of Causation

(7) "We may define a CAUSE to be 'An object precedent and contiguous to another, and where all the objects resembling the former are plac'd in like relations of precedency and contiguity to those objects, that resemble the latter.'" (T 1.3.14.31).

(8) "as our idea of efficiency is deriv'd from the constant conjunction of two objects, wherever this is observ'd, the cause is efficient; and where it is not, there can never be a cause of any kind. . . . If constant conjunction be imply'd in what we call occasion, 'tis a real cause." (T 1.3.14.32).

(9) "the constant conjunction of objects determines their causation . . . that constant conjunction, on which the relation of cause and effect totally depends." (T 1.3.15.1).

(10) "There must be a constant union betwixt the cause and effect. 'Tis chiefly this quality, that constitutes the relation." (T 1.3.15.5).

(11) "the constant conjunction of objects constitutes the very essence of cause and effect" (T 1.4.5.33).

(12) "we may define a cause to be *an object, followed by another, and where all the objects, similar to the first, are followed by objects similar to the second*" (EHU 7.29).

(c) Regularity as "The Very Essence" of Power or Necessary Connexion[103]

(13) "This multiplicity of resembling instances . . . constitutes the very essence of power or connexion" (T 1.3.14.16).

(14) "this uniformity forms the very essence of necessity" (T 2.3.1.10).

(15) "this constancy forms the very essence of necessity, nor have we any other idea of it" (EHU 8.25n19).

(d) The Two Definitions of Necessity

(16) "Here then are two particulars, which we are to consider as essential to necessity, viz. the constant *union* and the *inference* of the mind; and wherever we discover these we must acknowledge a necessity" (T 2.3.1.4).

(17) "I DEFINE necessity two ways, conformable to the two definitions of *cause*, of which it makes an essential part. I place it either in the constant union and conjunction of like objects, or in the inference of the mind from the one to the other" (T 2.3.2.4).

(18) "Beyond the constant conjunction of similar objects, and the consequent inference from one to the other, we have no notion of any necessity, or connexion" (EHU 8.5).

(19) "being once convinced, that we know nothing farther of causation of any kind, than merely the *constant conjunction* of objects, and the consequent *inference* of the mind from one to another . . . we may be more easily led to own the same necessity common to all causes" (EHU 8.21).

(20) "Necessity may be defined two ways, conformably to the two definitions of *cause*, of which it makes an essential part. It consists either in the constant conjunction of like objects, or in the inference of the understanding from one object to another" (EHU 8.27).

This list clearly disproves Beebee's assertion noted near the end of §3.3 above, that "The major problem with the traditional [regularity] interpretation is an almost total lack of evidence in its favour."[104] For we have here considerable evidence for that interpretation—spread over six sections of the *Treatise* and three of the first *Enquiry*—and these are only the twenty most explicit passages.

But further, we can now use this catalogue of "objectivist" passages to cast light on *why* so many recent scholars such as Beebee have underestimated the textual evidence for the regularity theory, because with the obvious exceptions of (7) and (12)—the familiar first definition of cause from the *Treatise* and *Enquiry* respectively—most of these passages have failed to feature at all in previous scholarly discussions of Hume on causation, whereas by contrast the ten subjectivist paragraphs of T 1.3.14.19–28 have been massively overrepresented in those discussions. Beebee's own 2006 book, *Hume on Causation*, quotes none of the twenty passages apart from (7) and (12), while quoting thirty times from T 1.3.14.19–28 (including ten for T 1.3.14.27 alone). But this is not careless neglect on her part, for it is a reflection of the works that her book discusses, by other scholars who have likewise neglected Hume's objectivist texts. The *New Hume Debate* collection of 2000 exhibits a bit more diversity, but again if we exclude the first definition passages from our list, only four of the other eighteen are quoted in any of the eleven chapters, each just once, namely in the papers by Winkler—passages (8), (15) and (18)—and Martin Bell—passage (20)—both of whom are *attacking* skeptical realism.[105] Hence those *defending* skeptical realism in that volume (Strawson, Wright, and Craig) never once quote any of these eighteen objectivist passages.[106] By contrast, the small stretch of text encompassing the ten subjectivist paragraphs of *Treatise* 1.3.14 provides no fewer than thirty-five quota-

tions in the collection, with the single paragraph T 1.3.14.25 alone being quoted nine times—more than twice as often as those eighteen objectivist passages put together![107] A similar pattern is evident if we wind back through the most influential books of the three previous generations. Stroud's *Hume* of 1977 quotes none of the objectivist passages except for the *Treatise* first definition of cause (7), while quoting the subjectivist paragraphs five times. MacNabb's *David Hume*—in the 1966 second edition—quotes none of the objectivist passages, while quoting the subjectivist paragraphs six times. Kemp Smith's *The Philosophy of David Hume* of 1941 quotes the first definition of cause in both versions, and one other objectivist paragraph (4); but against this, it cites the subjectivist paragraphs of *Treatise* 1.3.14 no fewer than 20 times![108] All this, I submit, displays a quite astonishing bias in the literature, especially when it is borne in mind that the favoured passages occupy only 10 out of over 1,300 paragraphs within a text that Hume published very early in his life, never revised, and later publicly renounced (as discussed in §8.2 below).

To sum up so far, I have argued that to achieve a balanced perspective on Hume on causation, we should avoid a narrow focus on his discussions "Of the idea of necessary connexion" that lead up to the two definitions of cause, and pay just as much attention to his later *applications* of those definitions. Tracing the later references that he makes back to the definitions leads us to the corollaries of T 1.3.14.32–36, the rules of T 1.3.15, and the discussions of "liberty and necessity" in T 2.3.1–2 and EHU 8; he also alludes to the content of the first definition—using the key term "constant conjunction"—towards the end of T 1.4.5. Thus it is not at all arbitrary to consider *these specific sections* as being particularly relevant to the understanding of Hume's theory of causation, especially given that all of them make significant philosophical use of the first definition of cause, drawing methodological and metaphysical conclusions that have an obvious importance to Hume's project. Taken together (and potentially supplemented with the other related passages that we have seen), they strongly suggest that Hume takes an objectivist regularity view of *both* causal relations *and* causal necessity. And their extreme scholarly neglect—especially when contrasted with the disproportionate emphasis given to the ten subjectivist paragraphs of *Treatise* 1.3.14.19–28—explains why previous interpretative attempts have overlooked this straightforward resolution of the apparent fundamental tension in Hume's position.

8. Disentangling "Of the Idea of Necessary Connexion"

Our primary focus so far, on Hume's later applications of his two definitions of cause, has enabled us to achieve relative clarity about the philosophical *destination* of his analysis of causation. But his *route* to that analysis—how exactly his identification of the relevant "impression" is supposed to justify the two definitions, and especially the first—remains rather obscure. In §8.1, I shall try to shed light on what seems to be going on in *Treatise* 1.3.14, by understanding Hume's discussion as intended

precisely to fill the gap between his empiricist starting point and the philosophical payoffs we have now seen. Then in §8.2, I shall address the question of how we can reconcile the fundamentally objectivist account of causal necessity discussed in §6 (deriving from the first definition of necessity), with the apparent subjectivity of Hume's earlier text.

8.1 From Natural Inference to Philosophical Normativity

Hume seems to have been firmly committed from the start to the Lockean programme of conceptual empiricism, which he reinterpreted in terms of his Copy Principle. But he found Locke's account of the "idea of power" unconvincing (T 1.3.14.5, EHU 7.8n12), and was apparently keen to remedy this in the hope of reaping philosophical benefits (of the kinds that we have seen in §§4–6 above). This then obliged him to search for a legitimating "impression," and since no such impression was plausibly to be found amongst the impressions of external sense, it could only be "some internal impression, or impression of reflection" (T 1.3.14.22).

So far, there is nothing particularly surprising or mysterious here, and a similar pattern can be seen in Hume's discussions of other philosophically interesting ideas such as *virtue* and *vice*, *beauty* and *deformity*, which turn out to derive from reflective pleasures or pains (T 2.1.7.3–6, 2.1.8.1–3). These identifications indeed seem fairly reasonable, since approval—either moral or aesthetic—plausibly involves a kind of pleasure, and disapproval a kind of pain. But what reflective "impression" could possibly yield the idea of *power or necessary connexion*? This is peculiarly problematic because of its *modal* nature, concerning not only what we can observe—e.g., some sequence of events—but also the unobservable "mustness" of those events, whereby we consider them to follow with causal *necessitation*. Hume's solution is to base our understanding of *causal* necessity on our awareness of *inferential* necessity, "the only connexion, that we can have any comprehension of" through internal reflection (EHU 8.25). This is ingenious, but again, there is nothing at all surprising in his having wanted to select an internal "subjective" impression for this foundational role—no other option was available, given his Lockean empiricist starting point.[109]

Hume's later *applications* of his analysis of causation, however, strongly suggest that his overall aim was to advocate a *regularity* account and to employ it *normatively*—not just to describe and explain our naïve inferential behaviour, but to prescribe how we should identify causal relations and draw inferences accordingly. This also crucially involved undermining *alternative* accounts of causation, and in particular, any theory implying that causes or effects could be known *a priori* (such as might be thought to prove a need for divine activity or an immaterial soul, etc.). Hume's logical acumen made this last task relatively straightforward: he was quickly able to show (in *Treatise* 1.3.3) that the supposed *a priori* proofs of the Causal Maxim fall short, and he then applied his Conceivability Principle more generally (in *Treatise*

1.3.6, as later in *Enquiry* 4) to argue that causal relations as a whole can be known only by experience. It turned out, however, that even experience was powerless to prove that patterns of causal "laws" would continue unchanged into the future, so prediction must inevitably involve a "presumption" of uniformity (T 1.3.6.7), which we standardly make without even being aware that we are doing so (T 1.3.8.13), because it is implicit in our instinctive customary association of ideas. And thus although Hume's aim was to vindicate empirical science based on inductive probable inference, his own investigations showed the impossibility of *proving* that such inference was rationally assured.

To fill this gap as best he could, Hume developed a psychological theory of belief and probability, explaining how custom provided a plausible basis for our common-sense judgments about reasonable belief and probable inference, and illustrating how deviations from this basis were associated with familiar cognitive errors such as superstition (e.g., T 1.3.8.4–6), indoctrination (T 1.3.9.16–19), and prejudice (T 1.3.13.7). But Hume knew as well as anyone the difficulty of getting from *is* to *ought*—from facts about human psychology to norms of reasoning. Hence his discussions of belief and probability in *Treatise* 1.3 are primarily descriptive, with a noticeable reluctance to step over the boundary into prescription, even when his sympathies clearly lie with the "philosophers" whose thinking he is describing, rather than with the superstitious and "vulgar" (e.g., T 1.3.12.1–6, 1.3.13.1). But prescription is his ultimate aim nevertheless, as we see when we reach *Treatise* 1.3.15 to find his "general rules, by which we ought to regulate our judgment concerning causes and effects" (as pre-announced at T 1.3.13.11).

I suggest that Hume's discussion "of the idea of necessary connexion" in *Treatise* 1.3.14 *implicitly* attempts to straddle this divide, smoothing the path from a descriptive associationist psychology to prescriptive rules founded on the presumption of uniformity. But its *explicit* role is to identify the "impression" that grounds the key idea, with a view to delimiting what it can legitimately represent. This provides Hume's basis for insisting that we have *only one* concept of causal necessity—founded on uniformity and customary inference—which crucially implies "that the common distinction betwixt *moral* and *physical* necessity is without any foundation in nature" (T 1.3.14.33), and refutes those who affirm "some farther connexion" in "the operations of matter" (EHU 8.21–2, cf. T 2.3.2.4, *A* 34).

The two definitions of cause apparently constitute Hume's way of attempting to combine these two roles. And now his ingenious identification of the "impression of necessary connexion"—as inference of the mind—enables him (with at least an appearance of cogency) to transform *criteria for appropriate application of the corresponding idea* into *criteria for appropriate mental inference*.[110] In the *Treatise*, he hints at a rationalisation of this transformation in terms of his distinction between "natural" and "philosophical" relations (from T 1.1.5.1), describing the two definitions as "presenting a different view of the same object, and making us consider it

either as a *philosophical* or a *natural* relation; either as a comparison of two ideas, or as an association between them" (T 1.3.14.31). Whether the two definitions really do present "the same object" is questionable,[111] as is the genuine relevance of the philosophical/natural distinction,[112] and neither of these suggestions appears in the *Enquiry*. But at least this text in the *Treatise* helps us to see a plausible pattern to Hume's thought, whereby the "idea" of causal necessity initially arises through the natural operation of naïve customary inference, but then gets systematised and applied reflectively on the basis of the philosophical relation, for example using the rules of *Treatise* 1.3.15.

Initially, therefore, natural customary inference—the crucial "impression" from which the idea of necessity is copied—determines where we assign necessity, hence "the necessary connexion depends on the inference, instead of the inference's depending on the necessary connexion" (T 1.3.6.3). But once we achieve a fuller understanding, it is our reflective "philosophical" assignments of causal necessity that determine our inferences. In treating the natural relation and the philosophical relation as identical, therefore, Hume is urging us to adopt a systematic approach to causal inference, based on generalising the paradigm circumstances of naïve customary inference from which the "impression of necessary connexion" derives.[113] If this identification is accepted, then the natural authority of naïve inference will plausibly be carried over to the reflective inference of philosophers, and the desired normativity has been achieved.[114] Hume's two definitions of cause, the second based on natural inference and the first on philosophical reflection, emphasise both the beginning and the end of this transformation—from the psychology of naïve inference to the normativity of reflective science. And if Hume did indeed frame the two definitions with something like this in mind, then we would expect him to consider the "philosophical" version dominant with regard to the reflective assignment of causal relations, just as we saw in §5 above, which tends to confirm that this account may be on the right lines.

The *Enquiry* omits any mention of the distinction between natural and philosophical relations, and introduces the two definitions of cause almost immediately after identifying the "impression" of necessary connexion. Here Hume gives no further explanation of the basis for his definitions, beyond some brief comments about "the surprising ignorance and weakness of the understanding," leading up to a suggestion that—since we lack any deeper insight beyond his discoveries about the kind of experience that prompts our causal inferences—causation must be defined "suitably to this experience":

> Similar objects are always conjoined with similar. Of this we have experience. Suitably to this experience, therefore, we may define a cause to be *an object, followed by another, and where all the objects, similar to the first, are followed by objects similar to the second*.[115] . . . The appearance of a cause always conveys the mind, by a custom-

> ary transition, to the idea of the effect. Of this also we have experience. We may, therefore, suitably to this experience, form another definition of cause; and call it, *an object followed by another, and whose appearance always conveys the thought to that other*. (EHU 7.29)

Hume acknowledges that we might feel dissatisfied by these definitions (though he calls them "just"), because they fail to specify any *intrinsic* characteristics that make something a cause—they are "drawn from circumstances foreign to the cause" in that they identify it *extrinsically*, in terms of its place within a repeated sequence of other "objects." But he confirms his own clear endorsement of them by going on to illustrate how they apply in a specific case, using an example of a vibrating string (to which we shall return in §8.2), and the paragraph ends with a note defining *power* in accordance with the spirit of the first definition of cause (as will be discussed in §9.3 below). Then comes the final paragraph of *Enquiry* 7, which summarises Hume's account of the origin of the idea of necessary connexion, but says nothing about the definitions that have just been presented. So the route that leads from customary inference to the definitions remains obscure, and indeed the last four sentences of *Enquiry* 7 suggest that Hume is aware of this, hinting that appreciation of his theory requires something like a *gestalt* shift (reaching a particular "point of view"), rather than being achievable by further explanation.

If this is correct, then there might ultimately be little to say about Hume's move from the descriptive psychology of his account of customary inference, to his normative definition of cause in terms of regularity. We can understand his starting and ending points well enough, and can at least see the general shape of how he wishes to move from one to the other. But the move—though philosophically attractive—is not entirely convincing, and even if we are willing to accept Hume's Copy Principle and his identification of the relevant "impression" (both of which might well be questioned), it does not straightforwardly follow that the corresponding idea *ought to be* applied consistently in accordance with any particular formulation of the typical circumstances in which that impression arises (e.g., genuine constant conjunctions). Hume hopes that his readers will achieve this point of view, but he has no compelling argument to bring them to it.

8.2 Taming the Extreme Subjectivism of Treatise 1.3.14

If—as I am claiming—Hume was always fundamentally objectivist about causal necessity, then why did he write those ten subjectivist paragraphs and include them so prominently in the *Treatise*? Several factors probably played a role here. First, he was obviously proud of his ingenious identification of the impression of necessary connexion, linked so closely with his equally ingenious theory of customary inference and belief. Secondly, this identification is startling and apparently paradoxical, which

Hume enjoys and is keen to emphasise, as becomes especially clear at T 1.3.14.24 (where he calls it "the most violent . . . paradox" of the *Treatise*) and T 1.3.14.26 (where he describes it as likely to be considered "extravagant and ridiculous"). Thirdly, as we shall discuss in more detail in §9.1 and §9.4, Hume's theory of ideas leads him to consider the impression as a *feeling* whose mental spreading "on external objects" is therefore deeply incoherent, albeit a natural mistake. The subjectivist paragraphs serve to distance him from that mistake by clarifying that the feeling should be understood as unambiguously "in the mind, not in objects" (T 1.3.14.22). Finally, Hume published the first two books of the *Treatise* in great haste after returning from France with the draft manuscript in 1737, and he probably failed to appreciate how confusing and incoherent his theory would appear to his readers (as discussed at the beginning of §2 above). As part 3 of Book 1 ends, the hyperbolic intensity of the subjectivist paragraphs remains in the memory far more vividly than the following corollaries or rules, while the two definitions of necessity—which crucially provide Hume's alternative, objectivist way of understanding causal necessity—will not appear until the final part of Book 2, over 30 sections and nearly 400 pages later!

There is plenty of evidence in Hume's letters that he soon regretted the haste in which he had published the *Treatise*, and that after the first *Enquiry* appeared, he advised his friends not to read the earlier work.[116] Indeed, he eventually (in 1775) asked his publisher to affix an "Advertisement" to the volume containing the *Enquiry*, describing the *Treatise* as a "juvenile work" which had been taken "to the press too early," containing "negligences in . . . reasoning and more in the expression." The Advertisement ends with the sentence: "Henceforth, the Author desires, that the following Pieces may alone be regarded as containing his philosophical sentiments and principles." So the *Treatise* was never revised, remained formally unacknowledged by its author (having been published anonymously in 1739–40), and—because Hume's own copies of the first two Books were sadly lost—we do not even have authorial annotations to indicate what corrections he might have wished to make to his discussions of causation. To find evidence of his considered view, therefore, we can only turn to the *Enquiry*.

The *Enquiry* does not include anything like the ten subjectivist paragraphs, though it has always generally been assumed to share the same subjectivist doctrine.[117] My own 2007 paper "Against the 'New Hume'" (discussed in §3.3 above) makes this point particularly explicitly, presenting it as an argument against the skeptical realist interpretation: "Certainly the *Enquiry*'s subjectivism is less strident than that of the *Treatise*, but it is still apparent enough."[118] The paper then quotes as evidence the following two passages:

> When we say, therefore, that one object is connected with another, we mean only, that they have acquired a connexion in our thought, . . . (EHU 7.28)

> The necessity of any action, whether of matter or of mind, is not, properly speaking, a quality in the agent, but in any thinking or intelligent being, who may consider the action; . . . (EHU 8.22n18)

However, *these are the only two passages in the entire first Enquiry* that might plausibly be considered to express a subjectivist interpretation of causal necessity, and I regret my failure in 2007 to follow up more critically my inability to find any others.[119] This lack of examples in itself represents a striking contrast with the *Treatise*, but even more significantly, as I shall now explain, these two passages do almost nothing to support the claim that the Hume of the *Enquiry* is indeed such a subjectivist.

Let us start with the second passage, which is the nearest that Hume gets in the *Enquiry* to saying *that necessity is in the mind, not in objects*. Here it is in context:

> The prevalence of the doctrine of liberty may be accounted for, from another cause, *viz*. a false sensation or seeming experience . . . of liberty or indifference, in many of our actions. The necessity of any action, whether of matter or of mind, is not, properly speaking, a quality in the agent, but in any thinking or intelligent being, who may consider the action; and it consists chiefly in the determination of his thoughts to infer the existence of that action from some preceding objects; as liberty, when opposed to necessity, is nothing but the want of that determination, and a certain looseness or indifference, which we feel, in passing, or not passing, from the idea of one object to that of any succeeding one. Now we may observe, that, though, in *reflecting* on human actions, we seldom feel such a looseness or indifference, but are commonly able to infer them with considerable certainty from their motives, and from the dispositions of the agent; yet it frequently happens, that, in *performing* the actions themselves, we are sensible of something like it: . . . We feel, that our actions are subject to our will, on most occasions; and imagine we feel, that the will itself is subject to nothing, . . . [Yet] it seems certain, that, however we may imagine we feel a liberty within ourselves, a spectator can commonly infer our actions from our motives and character; and even where he cannot, he concludes in general, that he might, were he perfectly acquainted with every circumstance of our situation and temper, and the most secret springs of our complexion and disposition. Now this is the very essence of necessity, according to the foregoing doctrine. (EHU 8.22n18)

This is a note, largely copied from the text of T 2.3.2.2, whose main point is to explain a natural *mistake*, whereby people wrongly consider themselves to be causally undetermined because they experience "a false sensation . . . of liberty or indifference." This sensation is *false* because it leads us to imagine that "the will itself is subject to nothing," whereas the truth of whether we are actually determined or not, Hume explains, has nothing to do with such feelings, but is instead a matter of whether a hypothetical spectator, "were he perfectly acquainted with every circumstance of our

situation and temper, and the most secret springs of our complexion and disposition," would be able to "infer our actions from our motives and character." The upshot, accordingly, is that "the very essence of necessity" turns out to be *the potential for ideally well-informed inference* (based on intimate knowledge of our situation and the relevant causal laws) by some "thinking or intelligent being, who *may* consider the action," rather than *actual* inference by any *existing* individual. And so necessity, thus understood, is not after all subjective, because it is defined relative to an *idealised* spectator rather than any individual human mind.[120] Taking all this together, the note provides negligible support for a subjectivist interpretation.

The apparently subjectivist passage from EHU 7.28 looks more substantial, because it occurs within the main text of Hume's discussion "Of the idea of necessary connexion," and indeed within the paragraph immediately prior to his two definitions of cause. The remainder of the sentence, moreover, seems to add to its significance, emphasising that its message is "somewhat extraordinary," yet also well founded:

> When we say, therefore, that one object is connected with another, we mean only, that they have acquired a connexion in our thought, and give rise to this inference, by which they become proofs of each other's existence: A conclusion, which is somewhat extraordinary; but which seems founded on sufficient evidence. (EHU 7.28)

But the context, both before and after, tells in a different direction. This paragraph is where Hume finally identifies the crucial impression for which he has been seeking throughout section 7, so it is unsurprising that he here focuses on what "we *feel* in the mind, this customary transition of the imagination," which he says "is the sentiment or impression, from which we form the idea of power or necessary connexion." This feeling is what leads us to "pronounce" events as causally connected, and Hume seems to be expressing this in the quoted passage in terms of what "we mean" when we do so. But in the very next paragraph, *after presenting his two definitions of cause*, he quickly goes on to provide an illustration which explicitly *extends* the scope of what we are able to mean by our causal attributions:[121]

> We say, for instance, that the vibration of this string is the cause of this particular sound. But what do we mean by that affirmation? We either mean, *that this vibration is followed by this sound, and that all similar vibrations have been followed by similar sounds:* Or, *that this vibration is followed by this sound, and that upon the appearance of one, the mind anticipates the senses, and forms immediately an idea of the other*. We may consider the relation of cause and effect in either of these two lights; but beyond these, we have no idea of it. (EHU 7.29, underlining added)

We have seen in §8.1 that the logical path from identification of the crucial "impression" to the two definitions is far from straightforward. But however that logic may

be supposed to work, Hume here very clearly indicates that once his two definitions have been framed, we are at liberty to use causal attributions in accordance with the first definition, so as to "mean"—adapting his phraseology—"that this *A* is followed by *B*, and that all similar *A*'s have been followed by similar *B*'s." Thus the apparently unambiguous subjectivism of the passage from EHU 7.28 is crucially overridden by the careful ambivalence of the passage from EHU 7.29, echoing both of the perspectives that are exhibited by Hume's two definitions. There is no basis here for insisting that Hume's understanding of causal necessity is inescapably subjectivist.

To sum up, therefore, *the first Enquiry does not contain any unambiguously subjectivist claims about causal necessity*. Hence it seems extremely unlikely that the strident subjectivity of the ten notorious paragraphs in *Treatise* 1.3.14 represents Hume's settled opinion, and this removes any compelling obligation to reconcile those paragraphs with our conclusion from §6 above, that he is fundamentally objectivist about necessary connexion.

9. The Issue of "Projection"

This paper began with an account of how the tension between objectivity and subjectivity in Hume's discussions of causation ultimately led to two revolutionary interpretations—*skeptical realism* and *quasi-realist projectivism*—which between them eclipsed the traditional regularity reading over the subsequent decades. I have argued that this would-be revolution was unjustified, in that the apparently subjectivist theme in Hume's text is misleading, while the traditional reading was correct all along in viewing Hume as a regularity theorist (though not in its various confusions about necessary connexion). This being so, we can confidently reject the skeptical realist interpretation, which insists that real Humean causal necessity is "something else" beyond regularity and inference, and which thus fails to make sense of the various key arguments where Hume applies the results of his analysis of causation (notably those discussed in §4.3 and §6 above). But nothing so far refutes the popular claim that Hume's philosophy of causation includes a strong *projective* element, and we have not yet considered whether *quasi-realism* might even underlie or explain Hume's commitment to the regularity theory. The quasi-realist interpretation could still be correct, even if the apparent "contradiction" in Hume's position that initially provoked Blackburn's 1990 formulation of it was illusory.

9.1 A Projective Error Theory

Ironically, however, the passage most often quoted in support of a projectivist interpretation does nothing to suggest that Hume himself is quasi-realist about causation.[122] For its role in context is to offer an *error theory* to explain why "the gen-

erality of readers" will have "a prejudice against the present doctrine" (T 1.3.14.24). In other words, it is explaining away a bias *against* Hume's own theory:

> This contrary bias is easily accounted for. 'Tis a common observation, that the mind has a great propensity to spread itself on external objects, and to conjoin with them any internal impressions, which they occasion, . . . [123] Thus as certain sounds and smells are always found to attend certain visible objects, we naturally imagine a conjunction, even in place, betwixt the objects and qualities, tho' the qualities be of such a nature as to admit of no such conjunction, and really exist no where. But of this more fully hereafter [footnote to T 1.4.5]. Mean while 'tis sufficient to observe, that the same propensity is the reason, why we suppose necessity and power to lie in the objects we consider, not in our mind, that considers them; notwithstanding it is not possible for us to form the most distant idea of that quality, when it is not taken for the determination of the mind, . . . (T 1.3.14.25)

The mind-spreading error seems to involve ascribing some sort of *mental* property—something "we feel internally" (T 1.3.14.28)—as an external property of objects, and thus creating the illusion of a would-be property of those objects modelled on a mental feeling, which can no more exist in them than can the sensation of a sound, smell, or taste (as discussed at T 1.4.5.11–14, to which Hume's footnote refers). The same sort of error plays a major role in Hume's explanation of the origin of religion, in the form of:

> an universal tendency among mankind to conceive all beings like themselves, and to transfer to every object, those qualities, with which they are familiarly acquainted, and of which they are intimately conscious. We find human faces in the moon, armies in the clouds; and by a natural propensity, if not corrected by experience and reflection, ascribe malice and good-will to every thing, that hurts or pleases us. Hence . . . trees, mountains and streams are personified, and the inanimate parts of nature acquire sentiment and passion. (NHR 3.2)

This "natural frailty" is also blamed for the errors of scholastic philosophers, who "have oft ascribed to inanimate matter the horror of a vacuum, sympathies, antipathies, and other affections of human nature" (NHR 3.2, cf. T 1.4.3.11). But there is a potentially important nuance here, because projection of *emotions*—as emphasised in the last passage—is significantly different from the projection of sounds, smells and tastes, which are impressions of *sensation*.[124] So perhaps the error that Hume has in mind is inappropriate projection of *any* mental perception, misapplying it to a location where—or to something in which—it cannot exist.[125]

9.2 The Non-Projective Alternative

Treatise 1.3.14 does not say that such erroneous projection is irresistible, and indeed the passage from the *Natural History of Religion* suggests that this sort of propensity, though natural and even "universal," can be "corrected by experience and reflection" (NHR 3.2). But this leaves us with a puzzle regarding Hume's own theory of causal attribution, and the role played in it by his impression of necessary connexion and the resulting idea. As far as the *Treatise* discussion is concerned, it looks very much as though he thinks we should resist attributing that idea—copied as it is from an internal *feeling*—to any external objects or events. What then becomes of his evident belief that objective causal relations exist, and his repeated claim that necessity is essential to causation? We have already seen Hume's ultimate solution in §6 above, in the form of his objective notion of necessity as defined in terms of constant conjunction. But since the relevant definition does not appear until Book 2 of the *Treatise* (implicitly at 2.3.1.4, explicitly at 2.3.2.4), this leaves the discussion of *Treatise* 1.3.14 crucially incomplete.[126] That discussion apparently offers us only one way of understanding causal necessity, through an idea that cannot coherently be applied to objective causal relations. It is no wonder, then, that Hume's interpreters, focusing overwhelmingly on Book 1, have had such difficulty making sense of his theory.

The first *Enquiry* brings a huge improvement with the placement of the discussion of "liberty and necessity" immediately after the discussion of necessary connexion, so that the two definitions of necessity are now introduced only six paragraphs after the two definitions of cause. Together with the absence of any extreme subjectivism about necessity (as described in §8.2 above), this makes it relatively easy to construct a coherent objectivist account of causal relations and causal necessity, even if the route by which Hume arrives at this destination remains in part obscure (as discussed in §8.1). So far, at least, projection plays no part in Hume's mature positive account.

9.3 Power and Projection in the First Enquiry

In the initial 1748 edition of the first *Enquiry*, indeed, projection does not feature even as an error theory of causal belief, and the only hint of it is in a note dismissing the suggestion that our "idea of force and power" might arise from a feeling of "*nisus* or strong endeavour, of which we are conscious" when we "exert our force" against "resistance which we meet with in bodies" (EHU 7.15n13).[127] But in the third edition of 1756, *projection* of this feeling enters the picture in an appended sentence: "It must, however, be confessed, that the animal *nisus*, which we experience, though it can afford no accurate precise idea of power, enters very much into that vulgar, inaccurate idea, which is formed of it." At the same time, Hume adds a second paragraph to an important later note (appearing immediately after the two definitions of cause), whose first paragraph gives his own explication of "the idea of *power*":

> According to these explications and definitions, the idea of *power* is relative as much as that of *cause*; and both have a reference to an effect, or some other event constantly conjoined with the former. When we consider the *unknown* circumstance of an object, by which the degree or quantity of its effect is fixed and determined, we call that its power: And accordingly, it is allowed by all philosophers, that the effect is the measure of the power. But if they had any idea of power, as it is in itself, why could not they measure it in itself? The dispute whether the force of a body in motion be as its velocity, or the square of its velocity; this dispute, I say, needed not be decided by comparing its effects in equal or unequal times; but by a direct mensuration and comparison.
>
> As to the frequent use of the words, Force, Power, Energy, *&c.* . . . These words, as commonly used, have very loose meanings annexed to them; and their ideas are very uncertain and confused. No animal can put external bodies in motion without the sentiment of a *nisus* or endeavour; and every animal has a sentiment or feeling from the stroke or blow of an external object, that is in motion. These sensations, which are merely animal, and from which we can *a priori* draw no inference, we are apt to transfer to inanimate objects, and to suppose, that they have some such feelings, whenever they transfer or receive motion. With regard to energies, which are exerted, without our annexing to them any idea of communicated motion, we consider only the constant experienced conjunction of the events; and as we *feel* a customary connexion between the ideas, we transfer that feeling to the objects; as nothing is more usual than to apply to external bodies every internal sensation, which they occasion. (EHU 7.29n17)

Hume emphasised the significance of this footnote when in 1764 he added an index (already mentioned in §6 above) to his *Essays and Treatises on Several Subjects*, referencing the note under "Power, what its Idea." Winkler plausibly suggests that Hume added this explication of the idea of *power* on realising that the definitions of *cause* at EHU 7.29 had failed to deliver on his earlier undertaking to clarify "the idea of power or necessary connexion" (at EHU 7.5).[128] Hume would in due course be defining *necessary connexion*, as we saw in §6 above, but the first paragraph of this note explains *power* in the spirit of the first definition of cause, as measured by the observed "effect, or some other event constantly conjoined" with the cause (rather than by any mental inference).[129]

With regard to the issue of projection, however, what concerns us is the second paragraph of the quoted note. Here Hume repeats his suggestion from EHU 7.15n13 that the "vulgar, inaccurate idea" of power involves illicit projection of feelings of "*nisus* or strong endeavour," and he now adds to this "feeling from the stroke or blow of an external object." But he then puts this alongside a different kind of projection, when "we consider only the constant experienced conjunction of the events; and

as we *feel* a customary connexion between the ideas, we transfer that feeling to the objects." This, it seems, is subject to exactly the same censure as was the "spreading of the mind" in T 1.3.14.25—just another instance of that erroneous tendency in human nature "to apply to external bodies every internal sensation, which they occasion."[130]

9.4 Functional Projection—a Tempting Reinterpretation

Unfortunately, Hume's dismissive attitude towards projection of our "feeling" of customary inference tells against the prospects for a more philosophically interesting *functional* interpretation of projection, to which we saw Blackburn implicitly appealing in §3.2 above: "the mind . . . changes *functionally*: it becomes organized so that the impression of the antecedent event gives rise to the idea of the subsequent event. . . . we think of the events as thickly connected; we become confident of the association, we talk of causation, . . ."[131] Such functional change is not in itself *projective*, but it becomes so if we ascribe to the events a relation of *inferability* as an external correlate to our inferential tendency (so that saying "*A* causes *B*" is *ipso facto* to say that *B* is inferable from *A*). My 2007 paper "Against the 'New Hume'" develops this idea further in support of quasi-realism, starting from an interpretation of the "impression of necessary connexion" which aims to absolve Hume from the category mistake that would be involved in equating a felt impression with a *determination* or *transition* of the mind (as for example at T 1.3.14.1, 1.3.14.20, and EHU 7.28):[132]

> Far more faithful to Hume is to interpret the "impression" in question as the reflexive awareness of making an inference; hence the idea of power or necessary connexion is quite literally given meaning by "that inference of the understanding, which is the only connexion, that we can have any comprehension of." (EHU 8.25)[133]

> [Hume's] position might be [most] accurately characterised as "quasi-realist," understanding such talk as a *projection* onto the world of our inferential attitudes, but—unlike the error theorist—seeing such projection as legitimate and potentially truth-yielding if applied in accordance with his definitions. This quasi-realism is broadly reductionist in spirit, because it interprets the objective aspect of causal claims in accordance with Hume's first definition. However the quasi-realist sees causal claims as inextricably *attitude-coloured*, so that the assertion of such a claim is more than a mere statement of constant conjunction (or functional relationships etc.), but is semantically tied also to a propensity to draw appropriate inferences. Such an interpretation nicely reflects Hume's own presentation, in giving comparable weight to both of his "definitions of cause" . . . It also makes greater sense of his quest for the impression of necessary connexion, by explaining why identification of the genuine impression—reflexive awareness of our own inferential behaviour—might quite generally be required for full *understanding* of causal language.[134]

Expressing *inferability* between events looks vastly more coherent than ascribing *feelings* to them, and plausibly fits with what we are actually doing when we ascribe causal necessity. This reading also gives an elegant point to Hume's strong focus on the "impression of necessary connexion"—as revealing a meaning in causal attributions that goes beyond mere constant conjunction—which can potentially smooth the perplexing transition from description to normativity described in §8.1 above (by building inference into the very concept). Overall, therefore, a functional projective interpretation offers tempting attractions to anyone wishing to formulate a plausible Humean account.

There is also a hint early in *Enquiry* 7 that Hume might have been thinking along these lines, at the point where he changes the focus of his investigation from impressions of sensation to those of reflection: "Since, therefore, external objects as they appear to the senses, give us no idea of power or necessary connexion, by their operation in particular instances, let us see, whether this idea be derived from reflection on the operations of our own minds, and be copied from any internal impression" (EHU 7.9). "Reflection on the operations of our own minds" sounds rather like reflective *monitoring* of our mental processes, potentially giving access to ideas of those processes. This would be in the spirit of Locke's view of reflection as "that notice which the Mind takes of its own Operations."[135] But just as in the similar case of belief—with which Hume struggles in the 1740 *Appendix* and section 5 of the *Enquiry* (T 1.3.7.7, App. 2–4, EHU 5.11–12)—he then falls back into his standard narrow view that "impressions of reflection" are confined to "feelings,"[136] even emphasising this by italicisation four times over when he characterises his impression of necessary connexion. Here are the first three instances:

> This connexion, therefore, which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression, from which we form the idea of power or necessary connexion. . . . What alteration has happened to give rise to this new idea of *connexion*? Nothing but that he now *feels* these events to be *connected* in his imagination, and can readily foretel the existence of one from the appearance of the other. (EHU 7.28)

> We then *feel* a new sentiment or impression, to wit, a customary connexion in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea which we seek for. . . . this customary connexion or transition of the imagination . . . (EHU 7.30)

The fourth instance is in the note from EHU 7.29 quoted in §9.3 above, which talks of "customary connexion between the ideas" as something that we "*feel,*" and seems to be dismissive of our tendency to "transfer that feeling to the objects." This indicates that Hume is ultimately committed to the category mistake that my 2007

interpretation was attempting to avoid, conflating customary transition with a *feeling*, and taking projection to be an error rather than a positive aspect of his account of causation. I conclude, therefore, that the functional interpretation of his "impression of necessary connexion" is probably not, after all, optimally "faithful to Hume," though it remains attractive as a charitable *reinterpretation* which is very much in a Humean spirit. And it is certainly possible that Hume himself was influenced by the functional insight when he identified customary inference as the source of our idea of necessary connexion, even if his limited conception of reflective impressions ultimately led him to disown it.

9.5 Rejecting the Quasi-Realist Interpretation

Functional projection, as outlined above, takes our attributions of causal relations amongst objects to be *expressive of inferential attitudes* concerning the interaction of those objects, rather than as straightforwardly fact-stating. Quasi-realism then builds on this by treating the projected qualities as *sufficiently real to ground the truth or falsehood of statements which would otherwise fail to be truth-apt*. The primary inspiration for seeing Hume as taking this approach derives from his theory of morals, which is widely considered to be projectivist owing to a famous passage from the second *Enquiry*:

> Thus the distinct boundaries and offices of reason and of taste are easily ascertained. The former conveys the knowledge of truth and falsehood: The latter gives the sentiment of beauty and deformity, vice and virtue. The one discovers objects as they really stand in nature, without addition or diminution: The other has a productive faculty, and gilding or staining all natural objects with the colours, borrowed from internal sentiment, raises, in a manner, a new creation. (EPM App. 1.21)

Here we see taste raising a "new creation," beyond the standard boundaries of "truth and falsehood," by projectively "gilding or staining" natural objects with "colours, borrowed from internal sentiment." The quasi-realist picture will be complete if aesthetic and moral truth (and falsehood) are grounded on the features of this new creation. Hume himself does not clearly take that step, though perhaps it could be considered implicit in his own aesthetic and moral commitments (if, for example, we adopt a minimal conception of truth that takes "*P*" and "It is true that *P*" to be equivalent).

But whether or not the quoted paragraph supports a quasi-realist interpretation of Hume's theory of *morals*, it clearly counts against such an interpretation of his theory of *causation*. For it continues:

> Reason, being cool and disengaged, is no motive to action, and directs only the impulse received from appetite or inclination, *by showing us the means of attaining happiness or avoiding misery*: Taste, as it gives pleasure or pain, and thereby constitutes happiness or misery, becomes a motive to action, and is the first spring or impulse to desire and volition. (EPM App. 1.21, emphasis added)

Thus *reason*—which here explicitly includes assessment of causal "means"—is said to be "cool and disengaged," concerned with "truth and falsehood," and "discovers objects as they really stand in nature, without addition or diminution." *Taste*, by contrast, directs "desire and volition," thereby providing "a motive to action." And crucially, it is this *emotive* element of "internal sentiment" which is projected by the "gilding or staining" of taste. So there is a fundamental mismatch between Hume's view of causal relations—which places them, ungilded, within the realm of truth and falsehood—and the quasi-realist interpretation—which sees "projection" as playing the role of taking them into that realm. For Hume, "gilding and staining" seems to be primarily *non-cognitive*, rather than an objectifying mechanism, while causal statements appear to be straightforwardly truth-apt as they stand, falling squarely within the domain of "truth and reason."[137] Given the discussion in §§4–6 above, it is no surprise to find that Hume takes an objectivist view of causal truth and falsehood. But his placement of causal relations within the domain of "reason," *precisely* at the point when he is distinguishing this from projective "taste," undermines any case for his seeing causal truth and falsehood as fundamentally dependent on quasi-realist projection. Thus the two distinctive aspects of the quasi-realist interpretation of Hume on causation—both its functional expressivism and its anti-realist view of causal truth—can be confidently rejected.

10. Conclusion

I have argued that Hume's theory of causation has been very widely misinterpreted, owing in large part to the disproportionate influence of ten vivid paragraphs in *Treatise* 1.3.14, which have falsely suggested that he considers causal necessity to be observer-relative rather than an objective feature of the world. The consequent obvious tension with his definition of causation in terms of constant conjunction—and with his generally objectivist view of causal science—has created a major puzzle for his interpreters, which they have attempted to resolve in three principal ways. Some (e.g., MacNabb, Penelhum, Russell) have claimed that Hume sees a fundamental divergence between *causation-in-the-objects* and *necessity-in-the-mind*; others (e.g., Wright, Craig, Strawson, Kail) that he is committed to some alternative "genuine" necessity which is objective, but quite distinct from the subjective causal necessity around which he frames his discussion; and yet others (e.g., Blackburn, Coventry, myself in 2007) that he favours quasi-realist objectification of necessity-in-the-mind

by appeal to standardisation mechanisms of the sort that seem to feature in his philosophy of ethics and aesthetics. These various readings have hugely complicated the interpretative landscape, generating complex and philosophically sophisticated debates about supposed deep subtleties in Hume's philosophy that are far from apparent at the surface.

This paper proposes an interpretative hypothesis which is both much simpler, and also far more plausibly attributable to a young man who was still only 26 when in 1737 he returned from France with the draft manuscript of the *Treatise*, impatient to achieve his first publication. This is, that the tension in his treatment of causation arose from his attempt to use Lockean conceptual empiricism to establish a unified account of the causal relation as systematised constant conjunction. Hume was clearly convinced by Locke's empiricism in general, but saw the flaw in Locke's account of the idea of power, and planned to remedy this by finding the true source of that idea. Having identified this source as customary inference in response to observed constant conjunction, he then attempted to harness the normativity of conceptual empiricism *both* to circumscribe the limits of our causal thought (as is most evident in his treatment of "liberty and necessity") *and* to establish that the proper method of science is to search systematically for constant conjunctions (as in his "rules by which to judge of causes and effects"). His two definitions apparently constitute an effort to combine these tasks, though Hume is far from explicit about how exactly the trick is to be achieved. This strongly suggests that he had no cogent way of doing so, though the overall conceptual picture at which he arrives is elegant and fairly persuasive, despite the lack of a compelling transition from the *is* of natural inference to the *ought* of causal science. Crucial to this picture, marrying together all of Hume's subsequent applications of his analysis of causation, is the identification of causal necessity as objective regularity (rather than any subjective feeling, let alone some hidden aprioristic necessity). If past interpretative discussions of Hume on causation had given these applications (discussed in §§4–6 above) the emphasis they deserved, instead of being dazzled by the subjectivism of the ten famous paragraphs of *Treatise* 1.3.14, this identification would not have been so generally overlooked.

In contrast to the multiple epicycles of alternative interpretations, every part of this story is well attested, from Hume's criticism of Locke's account of idea of power, to his search for its true source, to his two definitions, which are then quickly followed in the *Treatise* by the corollaries and the rules of T 1.3.15, and in the *Enquiry* by the discussion of "liberty and necessity." The obscurity that remains, in the transition from identification of the key "impression" to the two definitions, is there in the text: Hume himself gives us a fudge, lacking any clearly coherent narrative (let alone one that is compelling). Yet it is an enticing fudge, because it hints at the attractive possibility that the "idea" copied from customary inference of the mind might be interpreted not as *representing a feeling* that accompanies such inference, but instead *functionally*, so that the very meaning of causal necessity comes to include

a commitment to appropriate inference. Thoughts along these lines, encouraged by Hume's vivid metaphor of mind-spreading, have provided a magnet for *projectivist* interpretations, which can indeed legitimately claim to combine various elements of his philosophy. But as we have seen, Hume himself seems ultimately to be trapped by the limitations of his theory of ideas to interpret the impression in question as just a *feeling*. Thus any projection of it involves an error, which can help to explain others' reluctance to accept his theory, but does not itself constitute a positive part of that theory. His view of causal truth, moreover, is far less sophisticated than quasi-realist projectivism would suppose, based simply on the presence of objective constant conjunctions between types of event.[138] In the end, then, Hume himself is neither a skeptical realist nor a projectivist about causation. Instead, he is after all a relatively straightforward regularity theorist, about *both* causal relations *and* causal necessity.[139]

NOTES

1 Hence this interpretation is often called *reductionist*.

2 David Hume, A *Treatise of Human Nature: A Critical Edition*, vol. 1, ed. David Fate Norton and Mary J. Norton (Oxford: Clarendon Press, 2007), abbreviated "*Treatise*." References indicated by "T" and given to Book, part, section, and paragraph number. Also includes Hume's *An Abstract of . . . A Treatise of Human Nature*, for which references indicated by "Abs" and given to paragraph number.

3 David Hume, *An Enquiry concerning Human Understanding: A Critical Edition*, ed. Tom L. Beauchamp (Oxford: Clarendon Press, 2000), abbreviated "*Enquiry*." References indicated by "EHU," then section and paragraph number.

4 David Hume, *An Enquiry concerning the Principles of Morals: A Critical Edition*, ed. Tom L. Beauchamp (Oxford: Clarendon Press, 1998). References indicated by "EPM," then section and paragraph number.

5 Part 3 also encompasses *en route* Hume's famous discussions of the Causal Maxim, inductive inference, belief, and probability. The first three of these are explicitly introduced as detours along the way towards his search for the impression of necessary connexion (at T 1.3.2.13–15), while the fourth seems intended to corroborate the account of belief (see T 1.3.11.1). When Hume finally returns to discuss the origin of the idea of necessary connexion (at T 1.3.14.1), he attempts to present all these as constituting a coherent journey towards his goal.

6 For example, the *Dictionary of Philosophical Quotations*, ed. A. J. Ayer and Jane O'Grady (Oxford: Blackwell, [1992] 1994), 193, quotes both T 1.3.14.22 and 1.3.14.25, while including only four other quotations from the entirety of Book 1, part 3 (specifically from T 1.3.6.7, 1.3.7.15, 1.3.8.12, and 1.3.16.1).

7 "This connexion, therefore, which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression, from which we form the idea of power or necessary connexion" (EHU 7.28).

8 The writings of Hume's early critics on causation are conveniently collected together in James Fieser, *Early Responses to Hume's Metaphysical and Epistemological Writings*, 2nd ed, vol. 1 (Bristol: Thoemmes Continuum, 2005). Relevant passages can be found there at the following pages: (a) Leland, 141; Balfour, 197; Beattie, 220, 233, 236; Reid, 323, 389. (b) Kames, 130; Leland, 146; Balfour, 195–97; Beattie, 232, 237–38; Priestley, 277; Reid, 391. (c) Kames, 129–31; Leland, 141, 146; Oswald, 177, 181; Beattie, 233, 238. (d) Leland, 142, 147; Oswald, 176; Balfour, 196; Beattie, 233, 238. (e) Kames, 131–32; Leland, 146–48; Oswald, 177. (f) Kames, 130–31; Balfour, 196; Beattie, 237; Priestley, 277; Reid, 323, 376.

9 Quoted in Fieser, *Early Responses*, 233.

10 In this paper I consistently use the term "subjective" to mean *observer-relative*, for that is what generates the crucial tension within Hume's theory which Beattie is clearly highlighting. But the subjectivist paragraphs of *Treatise* 1.3.14 also suggest another understanding of the objective/subjective distinction, as between qualities *of objects* and qualities *in the mind*, which would not necessarily imply observer-relativity (if, for example, human minds all work alike, or if the qualities considered are those of an idealised mind). Moreover, any *relation* which is objective in the sense of *observer-independent*—for example, relations of conjunction between external events—could in Hume's day have been considered *subjective* in the mental sense, since it was then a Lockean commonplace that "*Relation*, take it which way you will, is only in the Mind." Ephraim Chambers, *Cyclopaedia, or, an Universal Dictionary of Arts and Sciences*, 2 vols. (London, 1728), 2: 988. Much more could be said on these issues, but for present purposes it is simplest to adopt a univocal understanding of subjectivity as observer-relativity.

11 Norman Kemp Smith, *The Philosophy of David Hume* (London: Macmillan, 1941), 393.

12 Ibid., 401.

13 Some interpreters, however, felt compelled by the texts to accept that Hume's theory was not entirely coherent. Most prominently, Tom Beauchamp saw Hume as torn between "two incompatible lines of thought," one of which ascribes causal relations on the basis of regularity alone, while the other requires a mental "necessary connection" for causation to be properly ascribed, "but there is no satisfactory indication that Hume either was aware of the problem or attempted to resolve it." Tom L. Beauchamp, "Hume's Two Theories of Causation," *Archiv für Geschichte der Philosophie* 55, no. 3 (1973): 281–300, 293–94; cf. Tom L. Beauchamp and Alexander Rosenberg, *Hume and the Problem of Causation* (Oxford: Oxford University Press, 1981), 20–21.

14 An interesting variation on this approach was proposed by Paul Russell, "Hume's 'Two Definitions' of Cause and the Ontology of 'Double Existence,'" *Hume Studies* 10, no. 1 (1984): 1–25, understanding Hume's two definitions as reflecting his ontology of "double existence," with the first focusing on causation in external objects, and the second on causation amongst our mental perceptions (with genuine necessity applying only within the mind).

15 D. G. C. MacNabb, *David Hume: His Theory of Knowledge and Morality*, 2nd ed. (Oxford: Blackwell, 1966), 106.

16 Terence Penelhum, *Hume* (London: Macmillan, 1975), 55.

17 At T 1.3.14.4, Hume says that "*efficacy, agency, power, force, energy, necessity, connexion*, and *productive quality*, are all nearly synonimous," and he goes on to alternate freely amongst them.

18 Necessary connexion is said to be essential to causation at T 1.3.2.11, 1.3.6.3, 2.3.1.18, 2.3.2.4, and EHU 8.27; the same is implied by EHU 8.25. All but the first two of these references occur after Hume's analysis of causation.

19 Barry Stroud, *Hume* (London: Routledge & Kegan Paul, 1977), 83.

20 A. J. Ayer, *Hume* (Oxford: Oxford University Press, 1980), 66.

21 John Wright, *The Sceptical Realism of David Hume* (Manchester: Manchester University Press, 1983), 127.

22 Ibid., 126–27.

23 Ibid., 129.

24 Ibid., 130.

25 Ibid., 133, alluding to T 1.4.7.5.

26 Ibid., 150.

27 Ibid., 152–54, quoting T 1.4.3.9.

28 Edward Craig, *The Mind of God and the Works of Man* (Oxford: Clarendon Press, 1987), 120–21.

29 Ibid., 77.

30 Ibid., 97–98.

31 Ibid., 92–97.

32 Ibid., 100. For a reply on Hume's behalf to the accusations of muddle and carelessness, see my "Against the 'New Hume,'" in The *New Hume Debate: Revised Edition*, ed. Rupert Read and Kenneth Richman (London: Routledge, 2007), 211–52, 234, and "Hume, Causal Realism, and Causal Science," *Mind* 118, no. 471 (2009), 647–712, 670–74. For skeptical doubts about Craig's more general "Image of God" interpretation, see my "Hume's Chief Argument," in *The Oxford Handbook of David Hume*, ed. Paul Russell (Oxford: Oxford University Press, 2016), 82–108, 85–86.

33 Craig, *Mind of God*, 109–11.

34 Ibid., 120–30.

35 Ibid., 104,

36 Ibid., 123.

37 Ibid., 123–25.

38 Ibid., 125–26.

39 Galen Strawson, *The Secret Connexion: Causation, Realism, and David Hume* (Oxford: Clarendon Press, 1989), 16–19, 32–70, 132–42. For other examples of such resources, Strawson makes prominent appeal to Hume's "central doctrine of 'natural belief'" (1–2, 13); emphasises the distinctions between knowledge and belief (13) and between supposing and conceiving (49–58); briefly mentions fictions (65–66); and claims that "our understanding of words like 'meaning' and 'unintelligible' is not the same as Hume's" (121), going on to parse statements about meaning in much the same spirit suggested by Craig. Also reminiscent of Craig is Strawson's strong attack on the traditional interpretation of Hume for failing to distinguish between the ontological notion (O) *causation as it is in the objects* and the epistemological notion (E) *causation so far as we know about it in the object*s (10), a theme which recurs in much of his subsequent discussion.

40 Strawson, *The Secret Connexion*, 7, 20–30, 90–93.

41 Ibid., 8.

42 Ibid., 13, 94–101.

43 Ibid., 84.

44 Ibid., 110–11.

45 Ibid., 50–52, 122–23, 127–28.

46 Ibid., 145.

47 Ibid., 157.

48 Ibid., 158.

49 Namely, paragraphs 15, 16, 19, 20, 23, 24, 25, and 28. Similar variations and conjunctions of terms occur in *Enquiry* 7, including the phrase "power or necessary connexion" in paragraphs 7.5, 7.6, 7.9, 7.26, 7.28, and 7.30.

50 In both the 1989 and 2014 editions of *The Secret Connexion*, Strawson makes such claims in respect of alleged "Causation references" at EHU 5.22 (185/172), 7.13 (192/178), 7.25 (200/184) and 7.29 (208/190). On page xi of the 2014 Preface, he claims the same of his three epigraph quotations from EHU 4.16, 5.22, and 7.13.

51 Simon Blackburn, "Hume and Thick Connexions," in *Essays in Quasi-Realism* (Oxford: Oxford University Press, 1993), 94–107, 94. Originally published in *Philosophy and Phenomenological Research* 50, Supplement (1990): 237–50, and reprinted also in *The New Hume Debate*, ed. Read and Richman, 100–12 (with a postscript added in 2000), though the 1993 edition includes some significant corrections (including to the definition of "thick," and an amusing Beatles reference in the final sentence) which are overlooked in the Read and Richman version.

52 Ibid., 95.

53 "Let us call any concept of one event producing another, or being necessarily a cause or consequence of another, and that involves something in the events beyond their merely being kinds of events that regularly occur together, a thick concept of the dependence of one event on another" (Blackburn, "Hume and Thick Connexions," 94).

54 Such misreading of T 1.3.2.11 is fairly common, going back at least as far as Kemp Smith, (*Philosophy of David Hume*, 92), and repeated as recently as Miren Boehm ("Causality and Hume's Foundational Project," in *The Humean Mind*, ed. Angela M. Coventry and Alex Sager [London: Routledge, 2019], 110–23, 111). Whether Hume does in fact consider causal relations to involve something more than *constant conjunction* remains debatable, though the discussions in §6 and §9.1–5 below will suggest not.

55 Blackburn's discussion of difficulties in the skeptical realist strategy ("Hume and Thick Connexions," 95–103) has considerable interpretative and philosophical interest, but is incidental to our main concerns here.

56 Blackburn, "Hume and Thick Connexions," 103.

57 Ibid., 107. Shortly after this passage, Blackburn remarks: "The parallel with Hume's philosophy of ethics is so far complete: again, there is a neutral starting point in the mind's apprehension of some nonethical facts, and then the onset of nonrepresentative passions ready to be voiced in our moralizing" (Ibid., 104). Blackburn originally coined the term "quasi-realism" to describe this approach to ethics, at the beginning of his 1980 essay "Truth, Realism, and the Regulation of Theory,"

in *Essays in Quasi-Realism*, 15–34. His 1987 essay "Morals and Modals," in *Essays in Quasi-Realism*, 52–74, extends it to embrace modality.

58 Blackburn, "Hume and Thick Connexions," 105.

59 Kenneth Winkler, "The New Hume," in *The New Hume Debate*, ed. Read and Richman, 52–74, 53–59. Originally published in *Philosophical Review* 100, no. 4 (1991): 541–79.

60 Ibid., 59–64.

61 Ibid., 65.

62 Ibid., 67, anticipated at 53.

63 Ibid., 68–69.

64 Ibid., 69–71.

65 Ibid., 71–72.

66 Ibid., 73.

67 Blackburn, "Hume and Thick Connexions," 110.

68 Edward Craig, "Hume on Causality: Projectivist *and* Realist?" in *The New Hume Debate*, ed. Read and Richman, 113–21, at 114. Originally published in 2000.

69 Ibid., 116.

70 Blackburn, "Hume and Thick Connexions," 109.

71 Craig, "Hume on Causality," 113.

72 John P. Wright, "Hume's Causal Realism: Recovering a Traditional Interpretation," in *The New Hume Debate*, ed. Read and Richman, 88–99, 88. Originally published in 2000.

73 Peter Kail, "How to Understand Hume's Realism," in *The New Hume Debate*, ed. Read and Richman, 253–69, 254.

74 As Wright observes, however, it is unclear whether Winkler does consider Hume to be agnostic in this way: "at the end of ['The New Hume'] Winkler asserts that according to Hume, no one can believe in objective necessity because 'we cannot in any way conceive it . . . we can't even *think* or *wonder* about it as it exists in objects.'" ("Hume's Causal Realism," 88).

75 Peter Kail, *Projection and Realism in Hume's Philosophy* (Oxford: Oxford University Press, 2007).

76 Millican, "Against the 'New Hume,'" 230–41.

77 For example, emphasising Hume's empiricism (216–17), challenging Strawson's "strict scepticism" and positivism claims (227–29), and also his remarks about the alleged deficiency of Hume's two definitions (241–43).

78 Kail's "RFP" conception, emphasised in his ("How to Understand Hume's Realism," 256–59), is similar. Other skeptical realists are less explicit, but most have resorted to some sort of aprioristic understanding of "real" necessity to enable the notion to be given content independent of Hume's subjectivist "impression of necessary connexion" (e.g., John P. Wright, "Hume's Causal Realism," 91–92).

79 Millican, "Against the 'New Hume,'" 243–45.

80 Ibid., 248n9.

81 Ibid, 244.

82 Winkler, "The New Hume," 74.

83 P. Kyle Stanford, "The Manifest Connection: Causation, Meaning, and David Hume," *Journal of the History of Philosophy* 40, no. 3 (2002): 339–60 likewise emphasises the semantic theme in Hume's discussion of "liberty and necessity," but draws a far more skeptical conclusion, that Hume denies "the existence of objective causal powers or objective necessary connections as even a coherent or meaningful metaphysical possibility" (360).

84 Millican, "Against the 'New Hume'," 247.

85 Millican, "Hume, Causal Realism, and Causal Science," 647–712.

86 Ibid., 667–84.

87 Ibid., 684–93.

88 Ibid., 693–702. The argument is presented—with varying levels of detail—twice in each of the *Treatise* and *Enquiry*, at T 2.3.1.4, T 2.3.2.4, EHU 8.5–22 and EHU 8.27, and it is summarised in the *Abstract* at *Abs* 32–34.

89 Walter Ott, "Review of Keith Allen and Tom Stoneham (eds), *Causation and Modern Philosophy,*" in *Notre Dame Philosophical Reviews* (2011). https://ndpr.nd.edu/news/causation-and-modernphilosophy/.

90 Donald C. Ainslie, "Review of Galen Strawson, *The Evident Connexion*," in *Notre Dame Philosophical Reviews* (2012). https://ndpr.nd.edu/news/the-evident-connexion-hume-on-personal-identity/.

91 See also, for example, Don Garrett's comment in our joint publication *Reason, Induction and Causation in Hume's Philosophy* (Edinburgh: IASH, University of Edinburgh, 2011), 30: "[Millican's] two papers, . . . [2007 and 2009] . . . constitute, I think, the most devastating case yet offered in defence of the Old Hume against the New"; Jani Hakkarainen, "Hume's Scepticism and Realism," *British Journal for the History of Philosophy* 20, no. 2 (2012): 283–309, 307n36: "For what I take to be a devastating argument against any form of the New Humean interpretation of Hume [on] causation, see Millican 2009, §§6–8"; and Andre Willis, *Toward a Humean True Religion* (Pennsylvania: Pennsylvania State University Press, 2015), 205n43: "Some scholars believe that Millican [2009] has ended this debate once and for all." The most strident contrary opinion comes from Strawson, who in the reissue of his 1989 book suggests optimistically that "supporters of the old Hume are now in the minority (at least outside Canada)." Galen Strawson, *The Secret Connexion: Causation, Realism, and David Hume*, Rev. ed. (Oxford: Oxford University Press, 2014), xi. That volume, however, fails even to mention the key objections to the New Hume involving the Conceivability Principle, *Treatise* 1.4.5, or "liberty and necessity," or indeed any of the papers in which these were urged. Strangely, in his book *The Evident Connexion* just 3 years previously, Strawson had claimed to be able to refute "Millican's recent 'decisive objection'" (Galen Strawson, *The Evident Connexion: Hume on Personal Identity* [Oxford: Oxford University Press, 2011], 63n51), citing no fewer than five of my papers and alluding to three sections of that book which supposedly make his case (§1.4, §2.4, and §2.7). But these sections include just one page referring to Hume's discussions of liberty and necessity, containing only two short quotations from EHU 8.21 while ignoring the most crucial parts of that paragraph (25). Presumably Strawson came to realise, on further reflection, that he

had not engaged with the objection, because Winkler's paper and all of my own are omitted even from the bibliography of his 2014 reissue of *The Secret Connexion*.

92 Helen Beebee, "Causation and Necessary Connection," in *The Continuum Companion to Hume*, ed. Alan Bailey and Dan O'Brien (London: Continuum, 2012), 131–45, 138, 143. See also the final section of her book *Hume on Causation* (London: Routledge, 2006), which nicely corroborates my interpretative focus on the tension between objective causation and subjective necessary connexion. For this starts with a short paragraph explaining "that the traditional interpretation, in all its various forms, fails" because it cannot reconcile Hume's apparent commitment to objective causation with "the manifest fact that Hume takes the idea of necessary connection to be an essential part of the idea of causation" and his doctrine "that the idea of necessary connection has no legitimate application to the world" (216). Thus "the interpretative choice is between projectivism . . . and sceptical realism," and Beebee remains firmly committed to this conclusion, even though her subsequent discussion goes on to evince considerable unease with both of these alternatives.

93 But this is not obviously true: *A is always followed by B* does not imply *B is always preceded by A*. Hume says that the claim is derived from experience, and is manifested when we draw broader inferences from "any clear experiment" (cf. T 1.3.8.14). At EPM 3.48, he approvingly describes such extrapolation as "Newton's chief rule of philosophising." For an apparent echo of this in the *Enquiry*, see note 115 below.

94 Hume's commitment to experimental methodology becomes particularly clear in *Treatise* 1.3.8, 1.3.12, and 2.2.2, which together include 36 paragraphs mentioning "experiments."

95 However, the conclusion of Book 1 does include a skeptical allusion to the subjectivity of necessary connexion, and our disappointment at learning that the "connexion, tie, or energy" that we take to reside in causes "lies merely in ourselves" (T 1.4.7.5). David Storrs-Fox, "Hume's Skeptical definitions of 'Cause,'" *Hume Studies* 43, no. 1 (2017): 3–28, 12–15 emphasises this skeptical theme, explaining Hume's provision of two definitions as indicating his realisation that no single definition can adequately capture what a genuine necessary connexion would have to be, because such a thing is impossible. Storrs-Fox also takes the same skepticism to be expressed in the *Enquiry* at 7.29, and indeed Hume does evince here an awareness that his account of necessary connexion is radically at odds with standard expectations. But as I have been arguing, Hume's positive use of his definitions does not indicate that he considers them deficient, and overall, his position on causation is constructive (as implied by his regularity theory) rather than skeptical. In the *Enquiry*'s concluding section devoted to "the Academical or Sceptical Philosophy," the upshot of his discussion of causation—"that we have no other idea of [cause and effect] than that of two objects, which have been frequently conjoined together"—is wrapped into his "sceptical doubts" about induction, but in a context where he is explicitly rebutting such "*excessive* scepticism" (EHU 12.22–23). For a very brief summary of what I take Hume to be arguing here, see my "Hume's Chief Argument," 96.

96 See Hume's letter of 2 December 1737 to Henry Home (better known by his later title Lord Kames), in David Hume, *New Letters of David Hume*, ed. R. Klibansky and E. C. Mossner (Oxford: Clarendon Press, 1954), 2.

97 It would be less puzzling if the two definitions were intended to serve as alternative criteria or methods for ascribing causes, as in the interpretation of Helen Beebee, "Hume's Two Definitions: The Procedural Interpretation," *Hume Studies* 37, no. 2 (2011): 243–74, in which case neither need dominate the other.

98 Galen Strawson, "David Hume: Objects and Power," in *The New Hume Debate*, ed. Read and Richman, 31–51, 47–48, and Strawson, *The Secret Connexion*, 192–93, make this point with the

intention of undermining the authority of the first definition as providing such conditions. But I suggest it is more appropriately targeted against the authority of the *second* definition, which lacks the normative force of the first.

99 Stroud, *Hume*, 182–85, draws attention to the parallel between the "subjective" definitions of virtue and cause, but Don Garrett, "The Representation of Causation and Hume's Two Definitions of 'Cause,'" *Noûs* 27, no. 2 (1993): 167–90, 179–83, largely reproduced in his *Cognition and Commitment in Hume's Philosophy* (Oxford: Oxford University Press, 1997), 107–11, seems to have been the first to note the deeper parallel extending to both pairs of definitions. Millican, "Hume, Causal Realism, and Causal Science," 663–66, concurs with Garrett on its significance.

100 The second *Enquiry* talks almost exclusively of moral *sentiments* rather than *impressions*, and says little about the origin of moral ideas, though their basis in natural feeling is clear at EPM 1.9, 5.3, and 9.8 (a much fuller account is given at T 3.1.2.1–4). The crucial role of reflective reason in good moral judgment is emphasised at EPM 1.9 and App. 1.2.

101 Such a split is key to the interpretations of MacNabb and Penelhum, as we saw in §2 above. But it has also featured in the writings of many other interpreters who overlook the existence of the two later definitions of necessity.

102 For example, Hume refers to the very essence of belief at T 1.4.2.24, virtue at T 2.1.7.4, wit at T 2.1.7.7, beauty and deformity at T 2.1.8.2, and riches at T 2.1.10.10.

103 Two other passages, at T 2.3.2.2 and EHU 8.22n18, talk of the "very essence of necessity" in terms of inference by an observer, but they are referring to an *idealised* observer whose inferences are governed by knowledge of all the relevant regularities, as will be explained in §8.1 below.

104 Beebee, "Causation and Necessary Connection," 138.

105 These quotations occur respectively on pages 72, 63, 54, and 137n18.

106 To be fair to these three authors, their books do somewhat better. Wright, *Sceptical Realism* mentions (4) and (5) on page 157, and (9) on page 155. Craig, *Mind of God*, mentions (11), on 110 and 116. Strawson, *The Secret Connexion*, mentions (3) on page 156, (4) on 156, (9) on 159–60, (10) on160, (11) on 152–53, (13) on 159, (19) on 193, and (20) at 196n14. But with one exception (Wright, *Sceptical Realism*, 157), all of these discussions focus on downplaying the apparent regularity implications of the relevant passages, and show no appreciation of the sheer weight of evidence they represent.

107 The three other texts most highly represented in the 2000 *New Hume Debate* collection—easily identified from its useful citation index—are from T 1.2.6.9, 1.4.2.56, and 1.4.5.20. These do not directly concern causation at all, but rather, the limits of our ideas about external objects, with T 1.2.6.9 allowing a "relative idea" while the other two seem to hint that *supposition* can extend beyond *conception*. It is striking how the textual focus of the collection has been skewed so much by these New Humean themes, to the neglect of so many other texts that squarely concern causation.

108 In detail, Stroud, *Hume*, quotes passage (7) on page 88; T 1.3.14 para. 20 on page 79; para. 22 on 81 and 247; para. 23 on page 241; and para. 25 on page 82. MacNabb, *David Hume*, quotes T 1.3.14 para. 21 on page 66; para. 22 on 113; paras 24 and 25 on 110; para. 27 on 105; and para. 28 on 112. Kemp Smith, *The Philosophy of David Hume*, quotes passage (4) on 214; passage (7) on 401; passage (12) on 249; T 1.3.14 para. 20 on 48 and 395; para. 22 on 135 and 395; para. 23 on 101, 135, 137, 253, 396, and 551–52; para. 24 on 395; para. 25 on 3, 120, 395–96, and 410; para. 26 on 135 and 397; and para. 27 on 94, 135–36, and 398.

109 This should be borne in mind when considering how far Hume can reasonably be described as a projectivist in such contexts, an issue to be discussed more fully in §9 below. I take it that mere derivation of an idea from a reflective impression—while no doubt having something of a projectivist flavour—is not enough to warrant describing such a position as involving "projection" in any more than a minimal sense.

110 Hume's procedure for identifying the "impression" suggests that he already had this purpose in mind before he started, because he disallows anything from counting as the requisite impression unless it can somehow ground the inference from cause to effect—this is most clear at *Enquiry* 7.7–19.

111 Garrett, *Cognition and Commitment*, 101–11, argues that this identification can indeed be justified in terms of Hume's theory of general ideas, on the basis that both definitions, if suitably idealised, pick out the same "revival set" of cause-and-effect pairs. Whether Hume himself can be credited with such a sophisticated move is debatable, and Kail, for example, considers this implausibly contrived ("How to Understand Hume's Realism," 269n28). But Garrett's case that Hume is thinking in terms of such idealised equivalence can be strengthened by appeal to a passage that he does not discuss—see note 120 in §8.2 below. Garrett's more recent work fits this into an even more sophisticated picture of causation as a "sense-based concept" (*Hume*, 129–35), thus giving comparable weight to both of Hume's two definitions. But this seems dubious for reasons explained in §5 above: Hume consistently advocates that we should identify causes by finding patterns of constant conjunction, not by appealing to any "causal sense."

112 For two contrasting views, one positive and one negative, see Beebee, "Hume's Two Definitions," and Peter Millican, "Hume's Fork, and His Theory of Relations," *Philosophy and Phenomenological Research* 95, no. 1 (2017): 3–65, 5–14.

113 Reflective systematisation is also emphasised by Hsueh Qu, "Prescription, Description, and Hume's Experimental Method," *British Journal for the History of Philosophy* 24, no. 2 (2016): 279–301, 294–95, who takes Hume's rules of *Treatise* 1.3.15 to be the outcome of a process in which general principles are distilled from the causal judgments of which we pre-philosophically approve, after which those principles can be applied reflexively to the pre-philosophical judgments from which they were derived. He suggests that a similar process is evident in Hume's second *Enquiry* and his essay "Of the Standard of Taste," but although Qu's comparison between these three cases is interesting and insightful, there is little evidence that Hume had worked out any such systematic vision at the time when he was writing the *Treatise*. Moreover, Qu's picture omits any role for Hume's search for the "impression of necessary connexion," which is the framing narrative of *Treatise* Book 1 part 3 and also remains prominent in *Enquiry* 7, without any clear parallel in the moral and aesthetic domains. This asymmetry presumably reflects the special role that the impression plays in Hume's repeated argument that we have only one understanding of causal necessity. Hume omits the rules of *Treatise* 1.3.15 from the first *Enquiry*, even though in some other respects the later work seems more overtly normative than the *Treatise* (e.g., within the discussion of miracles in *Enquiry* 10). But I suspect that this omission is due not to any change in normative emphasis, but rather, Hume's new appreciation that physical causation is to be explained in terms of quantitative "powers" rather than patterns of discrete events (see Millican, "Hume, Causal Realism, and Causal Science," 647–712, 700–701n62).

114 Note that the *modal* nature of the idea concerned does not help with the problem of establishing the normativity of its application. Hume's clever identification of the "impression of necessary connexion" might help with getting from *is* (i.e., empirical observation) to the idea of a modal *must*, but getting from *is* to a normative *ought* is a different problem.

115 Here I omit the problematic sentence "Or in other words, *where, if the first object had not been, the second never had existed,*" which seems to get the inferential link between the two objects the wrong way round. Perhaps Hume is here thinking along the same lines as in his fourth rule of T 1.3.15.6 (discussed in note 93 above).

116 See, in particular, Hume's letter to Henry Home dated 1 June 1739 (*New Letters,* 5), to Francis Hutcheson dated 16 March 1740 (HL 1: 38–9), to Gilbert Elliot in March or April 1751 (HL 1: 158), and to John Stewart in February 1754 (HL 1: 187). References indicated by "HL," then volume and page number, are to David Hume, *The Letters of David Hume*, 2 vols, ed. J. Y. T. Greig (Oxford: Clarendon Press, 1932).

117 Kames, one of its very earliest readers, states that in the *Enquiry* Hume "continues to maintain 'That necessity exists only in the mind, not in objects, and that it is not possible for us even to form the most distant idea of it, considered as a quality in bodies.'" Yet he is not quoting here from the *Enquiry* itself, but from T 1.3.14.22 (in Fieser, *Early Responses*, 131).

118 Millican, "Against the 'New Hume'," 228.

119 An example, I fear, of "scholarship by confirmation bias," in which one seeks confirming evidence for a favoured hypothesis, with insufficient alertness to evidence that might tell in a different direction.

120 This passage—and the similar T 2.3.2.2—provides the best evidence for Garrett's suggestion (see note 111 above) that Hume is thinking in terms of idealised versions of his two definitions, thus potentially making them equivalent. Importantly, however, this suggestion does not conflict with my claim in §5 above, that the first definition of cause dominates the second, because Hume's idealised spectator is being understood precisely as one who is drawing causal inferences based on objective regularities, rather than on the basis of naïve human tendencies.

121 Hume's new specification of what "we mean," following so closely on the previous one, does indeed seem to be a deliberate *extension* (or perhaps *correction*). But note also that the passage at EHU 7.28 itself looks more like a theoretical analysis of "what we mean" than a literal specification of a speaker's understanding, in much the same spirit as Hume's well-known aphorism that "when you pronounce any action . . . to be vicious, you mean nothing, but that from the constitution of your nature you have a feeling . . . of blame from the contemplation of it" (T 3.1.1.26). Another example is at T App. 2: "when we express our incredulity concerning any fact, we mean, that the arguments for the fact produce not that feeling [of belief]."

122 T 1.3.14.25 is one of the most quoted paragraphs in Hume's works, for example featuring no fewer than fifteen times in the 2007 revised edition of the *New Hume Debate* collection (and see also note 6 above).

123 See Norton and Norton, 2: 766, for anticipations of this observation in Malebranche and Rohault.

124 This suggests a looseness in T 1.3.14.25, which talks of the mind spreading "internal impressions" but then offers as instances "certain sounds and smells." Elsewhere in the *Treatise*, Hume uses the term *internal impressions* to refer exclusively to *impressions of reflection*, and indeed seems to regard these terms as equivalent (e.g., T 1.2.3.3, 1.3.14.22).

125 The text of T 1.3.14.25 suggests a focus on spatial spreading, but presumably a similar error can occur when we ascribe emotions or intentions to something that is not spatially located (e.g., a sad tune, or a vexing abstract problem).

126 It is notable that Hume's most explicit statements that necessity is essential to causation (at T 2.3.1.18, 2.3.2.4, and EHU 8.27) all occur in passages concerned with his definitions of necessity. But as pointed out in note 18 above, he implies the same well before his discussion of necessary connexion, at T 1.3.2.11 and 1.3.6.3.

127 I owe this observation to Kenneth P. Winkler, "Causal Realism and Hume's Revisions of the *Enquiry*," presented to the Hume Society Conference at Brown University in 2017, who insightfully analyses the development of the *Enquiry*'s footnotes, drawing highly negative implications for the skeptical realist interpretation. Here and in the following quotations I take the text from the final 1777 edition, which in these cases differs from the earlier editions mainly in its capitalisation and punctuation.

128 See again Winkler, "Causal Realism," who also draws attention to Hume's index entry. That the index reference was precisely to this note became clear in later editions (1770, 1772, and 1777) when the longer footnotes were changed into endnotes—the note in question became endnote "[E]." In all of these editions, the only other reference under "Power, what its Idea" is to EHU 7.5, where Hume's initial undertaking occurs.

129 Note also that the "circumstance of an object, by which . . . its effect is fixed and determined" can be something like an object's "velocity, or the square of its velocity," depending on what the functional relationships happen to be.

130 See also Hume's letter to Gilbert Elliot of 10 March 1751: "We feel, after the constant Conjunction, an easy Transition from one Idea to the other, or a Connexion in the Imagination. And as it is usual for us to transfer our own Feelings to the Objects on which they are dependent, we attach the internal Sentiment to the external Objects" (HL 1: 155–56).

131 Blackburn, "Hume and Thick Connexions," 107.

132 My quoted footnote below is attacking Stroud's interpretation of the impression as a "feeling of determination" that accompanies causal inference (*Hume*, 85–88). I still believe that my arguments here have some philosophical force (e.g., that Hume has no basis for supposing that there is any such distinctive feeling, given that causal inference is characteristically immediate and unreflective). But for the reasons given below, I now find these arguments interpretatively unconvincing.

133 Millican, "Against the 'New Hume,'" 249n26, referred to from 224.

134 Ibid., 239.

135 John Locke, *An Essay concerning Human Understanding*, ed. P. H. Nidditch (Oxford: Clarendon Press, 1975), II i 4. Hume also seems to hint at this kind of mental monitoring at EHU 1.13, where he talks of "the operations of the mind" becoming "the object of reflection," and recommends a sort of "mental geography, or delineation of the distinct parts and powers of the mind" which can apparently give us ideas of those mental operations in a Lockean fashion.

136 T 2.1.1.1 characterises impressions of reflection as "the passions, and other emotions resembling them," T 1.1.2.1 as "passions, desires, and emotions," and T 1.1.6.1 as "passions and emotions." Furthermore, Hume in the *Treatise* is firmly committed to the principle that [simple] ideas necessarily represent the impressions from which they are copied (see T 1.1.1.7, 1.1.1.12, 1.2.3.11, 1.3.7.5), which is twice reiterated within *Treatise* 1.3.14 (at paragraphs 6 and 11), and seems to preclude any more sophisticated theory of what the "idea of necessary connexion" might represent. Curiously, this principle is not repeated in the *Enquiry*, but nor is it contradicted.

137 Hume uses this phrase at T 2.3.3.5 and 3.1.1.15, in the context of his famous argument that reason cannot motivate (and hence cannot be the source of morals). Within that argument, causal inference is unambiguously considered to be an operation of *reason* so understood (most obviously at T 2.3.3.3, 2.3.3.6, and 3.1.1.12). Moreover, the framing of Hume's discussion seems to run counter to the idea that a statement could be at the same time both truth-apt and expressive of an attitude, which again tells against the quasi-realist thesis that causal statements have this duality.

138 But note that "constant conjunctions" here can encompass more complex functional relationships such as Hume considers in his rules of T 1.3.15 and hints at in his definition of "power" quoted from EHU 7.29n17 in §9.3 above.

139 For helpful feedback on earlier versions of this paper, I am very grateful to Jonathan Cottrell, Don Garrett, two anonymous referees for *Hume Studies*, and especially to my colleagues in the reading group at the National University of Singapore, whose forceful comments encouraged me to reframe my discussion to considerable advantage.

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