

## To Our Critics

Egil Asprem and Ann Taves

### Introduction and Acknowledgements

Our article on explanation in the study of religion is part of theoretical work that is still very much in progress. It is therefore not only a privilege, but very useful practice to get this opportunity to test our ideas and arguments on a sharp and critical audience of peers. Our four respondents bring up a fairly wide range of issues, from the historical to the philosophical to the political, marked by the evidently quite different positions from which each is writing. Some of these issues go to the very heart of the explanatory ambitions of our approach, while others are more peripheral to it, yet still important. Some responses enthusiastically endorse our project, while others remain unconvinced. In answering our four respondents, we choose to take the challenge offered us and devote most attention to our staunchest critics. We also give priority to the sorts of issues we find closer to the core of our approach, and which we feel let us explain (in the communicative sense!) aspects that were less evident in the original article.

To ensure that our selectiveness is not mistaken for ungratefulness, however, we wish to acknowledge some of the points we found fruitful but will not discuss at any length here. Erin Roberts' challenge to our reading of Aristotle is, for example, thoughtful and constructive in view of our particular objectives. We will carefully consider her Aristotle interpretation as we work on our monograph. Likewise, we thank Paul Kenny for his constructive remarks, most of which do not require a response beyond acknowledging that his points about reductionism, language, and the relations between levels in mechanisms are valuable to us as we continue to refine this framework. While we will return to some of the specific concerns that Roberts and Kenny brought up, we will focus on the responses of Joel Harrison and Spencer Dew, which were more critical. Harrison's paper in particular raises important challenges that not only take us to the heart of the matter, but are also likely to be of interest to other readers in this audience. Before we get to this, however, it appears necessary to revisit the work that "religion" does in our approach.

### An opening clarification on "religion"

There appears to be some confusion across the four responses on where we stand with regard to the concept of "religion". While Harrison seems to assume we're in the business of providing "an account of what religion *is*" [add page], Dew recognizes that the thrust of our argument is in fact to explain *human behavior in general*. For Dew, however, this prompts the question of why we, according to him, still retain "a position of privilege for the category of 'religion'" [add page]. We might as well sort this one out at the beginning.

To us, "religion" exists only as a discursive and social reality (what we call a CCC). As such, it is empirically available to us as one among a range of human constructs used to identify and distinguish between complex behaviors. We do not view ourselves as privileging the category of religion over other interpretive categories. Our particular interest is in human efforts to make sense of situations, including experiences, behaviors, interactions and events, particularly those that they find puzzling or out of the ordinary. If such situations are more often than not interpreted in religion-like terms – and we do not assume this is the case – then it is this fundamental interest that leads us to highlight some situations over others. In other

words, our object of study is not “religion,” but *situations*, particularly those that people find puzzling or out of the ordinary.

The shift we are advocating here is a significant one.<sup>1</sup> It does not eliminate individuals, but dereifies them, allowing us to examine not only what they bring to a situation, but also what subpersonal processes the situation evokes in them. It reconceptualizes individual agency by recognizing that agency is enacted in situations that direct human attention, evoke emotions, precipitate action, and generate interpretations. It thus opens the way to embed discursive constructions in material interactions that are simultaneously bodily, psychological, cognitive, and experiential.

### **On ontology and axiology: Rejoinder to Harrison**

Harrison’s intention is to “question whether Aspren and Taves’ theory (A) is actually completely reductive and (B) provides a compelling case for the unification of synchronic, diachronic, material, and ideational factors into a single coherent theory with sufficient analytical power.” [add page] In practice, these two questions can be rephrased as being about *what constitutes a (good) explanation*, on the one hand, and *what is the benefit of following the approach we sketch*, on the other. The centerpiece of Harrison’s critique concerns the role of “ideas” in our explanatory scheme, which leads him to suggest the need for a distinction between “ontological” and “axiological” explanations. Finally, Harrison illustrates the importance of this distinction by discussing Weber’s explanation of the “spirit of capitalism” which, in Harrison’s terms, is an axiological one. His challenge, which we will return to, is for us to convince him that our approach adds something useful to Weber’s approach.

While we are not convinced that Harrison’s distinction between ontology and axiology in this context is as fruitful as he suggests, we can nevertheless use his terms to clarify the place we see for “ideas” in causal mechanisms. We also thank Harrison for inviting Dilthey and Weber to the conversation, as we agree with him that there are interesting similarities and contrasts between our project and theirs.<sup>2</sup> Among the contrasts is that, while the hermeneutical tradition springing from Dilthey argues for a separation between the natural sciences and the humanities – and between explanation and interpretation – on the assumption that scientific explanation is about uncovering *general laws* (a view apparently embraced, through a neo-Kantian lens, by Harrison himself; see add page), our paper explicitly rejects such nomological views of explanation in favor of a focus on causal powers. Thus, we think that Weber’s methodological project (not only his thesis on capitalism), which treats reasons as causes, provides an excellent context for elaborating how our perspective differs in application to concrete socio-historical problems. We therefore intend to take up Harrison’s final challenge of asking what our approach adds to one like Weber’s, and what it may entail for scholars like Harrison, whose primary interest is in the effects of values and ideas on historical developments.

Adopting Harrison’s terms, we should begin by posing the fundamental ontological question of what “ideas” *are*. From our causal-mechanistic perspective, the meaningful way of formulating this question is to ask “how are ideas constituted” or, even better, “in virtue of what do ideas gain causal power”. Rooted in biology and the cognitive sciences, our answer to this question is that ideas are *mental representations*, and that their causal power rests entirely on how biological organisms engage these representations in specific situations.<sup>3</sup>

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<sup>1</sup> This shift is analogous in some ways to the shift in a focus from individuals to situations that Randall Collins (2004, 3-6) advocates as the basis for microsociology.

<sup>2</sup> We discuss Dilthey explicitly in a separate paper on “worldviews” (Taves and Aspren forthcoming). More on this later.

<sup>3</sup> Here we must add the caveat that a much broader conception of representations is possible and desirable, taking into account public as well as mental representations – that is, the transmission of ideas in extrapersonal

“Ideas” only have effects in virtue of being embodied in culturally embedded animals. The central nervous system encodes and processes representations based on information received from multiple bodily systems. The endocrine system (hormones), for example, can regulate the emotional “gain” on ideas and hence plays an important part in transforming mere representations into subjective hierarchies that shape the organism’s response. This, in other words, outlines the shape of a synchronic explanation of ideas as causal powers. It also highlights the sense in which our approach is reductionistic. It does not accept the causal power of ideas on face value, but would look for the material constituent parts of what we call “ideas” that, under certain specific circumstances (situations), give them this power.

One consequence of this view is that the separation of ontological and axiological explanations collapses. Harrison defines an axiological explanation as “an explanation of effects, material or ideational, which *have an ideational cause*” (our emphasis; [add page](#)). But ideational causes are material causes. To the extent that our interest is in how axiologies have *real effects* (acknowledging that historical actors often act contrary to their confessed values), we must, again, return to their implementation in the actor’s biological organism. In a separate paper, we are outlining a theory of *worldviews*, based on but departing from Dilthey’s *Weltanschauungslehre*, which aims to do precisely this (Taves and Asprem 2017). The crucial point is that axiologies are biologically basic in so far as organisms assign value to stimuli in the environment that guide them to adopt one course of action over another. The systems of value that guide this process arise early in evolution, and provide an important basis for more complex organisms to create internal models of self and world, allowing them not only to survive and reproduce, but to transform their material environments by externalizing and objectifying their internal models through repeated action.<sup>4</sup> In other words, human “worldviews” build on a basic ability to create self-models and world-models, shared with a host of other “agents”, from bacteria to robots.<sup>5</sup>

An analysis of “values”, even in human subjects, must therefore also include a biological and psychological analysis. It is not sufficient to study intellectualized value systems, of the kind expounded in texts of moral doctrine or inferred from the study of political, religious, or philosophical discourse. If, for example, the “religious” idea that “dancing is sinful” causes a Baptist to resist the temptation to join the other moving bodies on the floor (even when the rhythms are compelling and the bodies beautiful), this means that some biological representation related to what we crudely call “the idea of sin” causes the Baptist to override impulses that the other dancers are embracing. Now, a number of different sin related representations might in fact be effecting this override, from an experienced fear of hellfire or a worry that Baptist peers might find out about the dance (emotional responses), to a disciplined, prideful sense of “doing what is right” (Weber’s “value-rational action” cast as executive control over impulses). Our point here is that the mechanistic account of how ideas *in fact* impact on behavioral outcomes forces us to think a lot more deeply about the issues. We cannot be content with finding correlations between a behavior and an expressed (or even inferred) belief, but should ask about the emotional, cognitive, and social-psychological components interacting to produce concrete behaviors in specific situations – from individual

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space through material inscriptions and symbolic scaffolding of various sorts. Such public representations are, however, also only effective by virtue of producing representations in the minds of the organisms that interact with them – public representations do not themselves “contain” ideas, as much as evoke them. Due to space constraints, we will limit our discussion here to the essential biological understanding of ideas at the point in time in which they exert causal power, i.e., in a specific action.

<sup>4</sup> The choice of the words in this sentence is deliberately meant to suggest a connection to Berger and Luckmann’s (1966) theory of socialization, which we think can be updated and amended along these lines.

<sup>5</sup> This view is largely based on Metzinger’s (e.g. 2003, 2007) theory of self-modeling systems and Clark’s (2016) account of predictive coding as a computational strategy.

differences in cognitive ability, to differences in how the belief was socialized and enforced, to environmental factors impacting on executive control and inhibitions, such as alcohol consumption, music, or even stress.

Returning now to Harrison's challenge: What does the new mechanism add analytically to a case such as the role of Protestant ideas in the rise of European industrial capitalism? Setting aside the considerable doubt that has been cast on whether there is any empirically evident causal relationship between Protestantism and capitalism in the first place,<sup>6</sup> the most obvious value of the new mechanist approach is a heuristic one: It provides a way to sort out and order our causal claims, and, importantly, to locate each of these in a consilient nested stack of mechanisms that can be analyzed at different scales according to interest as well as explanatory necessity. So for example, Weber's proposed "rise-of-capitalism" mechanism contains a diverse set of components that interact at a behavioral level: *socio-economic* preconditions (such as the availability of free labor and the separation of work and home), *practices* (such as inner-worldly asceticism and rational book-keeping), and *ideas* (such as the Calvinist doctrine of predestination). The mechanism at this level presupposes the interaction of a large class of people who hold these ideas and engage in these practices in a complex social environment where work and home are separated and free labor is available.

We are not arguing that scholars should always, as a matter of principle, push explanations "downward." For researchers with an interest in macro-sociological comparisons, identification of a proposed mechanism at this level may be sufficient. Weber wanted to see if the components that interacted to produce a specific form of bourgeois capitalism existed in other contexts and, if not, whether their absence could account for those societies' failure to develop the same sort of capitalism. However, by stressing the vertical dimension of mechanisms nested within mechanisms, we insist that it is always a good idea to consider *what gives* each proposed component in a mechanism its causal power. The value of this is particularly evident when an explanatory model (such as Weber's on capitalism) fails to work. Does it fail because the components interact differently than expected, or because there are other unaccounted variables at play, or perhaps because some of the suggested components in fact work differently than one had thought? For example, there is now a consensus that the "Calvinist beliefs" component in Weber's model does not hold up in view of the historical evidence. Examining why this causal component does not work as expected, one should take apart the ideal-type model of what constitutes rational conduct for believers in predestination, and look at alternative explanatory models of belief-formation, its effects on behavior, and interaction with other factors, whether environmental, bodily, or cognitive. In short, troubleshooting a failed explanation does require us to consider lower-level mechanisms, and promises significant theoretical payoffs in the shape of new explanatory models that are more robust and better integrated with other disciplines.

### **Methodological Challenges: How "scientific" do our explanations have to be?**

A sympathetic reader may agree with everything we have said so far, yet still be concerned about how one would go about doing any of this in practice. This is a valid concern, which both Roberts and Kenny raise in their responses. It is tempting to differentiate their versions of this critique into a "soft" (Kenny) and a "hard" (Roberts) critique. In the softer version, Kenny draws a distinction between proposing "good explanations" and using "scientific

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<sup>6</sup> For substantial critiques see e.g. Lehmann and Roth eds. 1993; and Cantoni 2015 for a recent quantitative assessment.

theories” [add page], voicing his preference for the former over the latter. “[N]o good explanation of religion(s) will be created without input from both the humanities and science”, he writes, and adds that he sees a danger in the new mechanistic approach of overemphasizing “the scientific method” [add page]. Being able to carry out explanatory reduction is a good and necessary thing, Kenny agrees, but we should not throw out the baby with the bath water and outright deny the usefulness of humanistic research on such things as the causal relevance of institutions and cultural learning.

Kenny’s point is, perhaps, nowhere as clearly stated as when he cites David Deutsche’s example of why there is a copper atom at the tip of the nose of the statue of Winston Churchill outside Parliament Square in London [add page]. Kenny argues, with Deutsche, that a sufficient explanation in this case needs to proceed from the top-down rather than the bottom-up: the copper atom would not have been there were it not for the British cultural institution of erecting statues of wartime leaders, the tradition of casting such statues in bronze (of which copper is a component), and the fact that the Allies won the Second World War. Kenny sees in this an argument for *emergent phenomena*, that is, of causal powers that emerge on a higher level of complexity which, when in existence, have causal force “downwards” to their components. We are sympathetic to emergentism, but think that emergent effects can be accounted for in the new mechanism. This is due to the crucial distinction, explained briefly in our article, between levels of mechanisms and levels of reality. “Classical” emergentism asked how is it that wholes seem to be more than the sums of their parts, but tended to assume that the parts existed at one level of reality and the whole at another “higher” level. This conception of emergence works well enough if we are considering the oxygen and hydrogen atoms that combine to form water. Since mechanisms are defined in terms of the components that interact to produce a phenomenon, levels of mechanisms do *not* necessarily map on to levels of reality. Put differently, we could make a mechanistic model of “how the copper atom ended up on Churchill’s nose” that includes all the factors listed by Deutsche as *interacting components* that explain the presence of the atom on Churchill’s nose. From a mechanistic perspective, going a level “down” means looking at how each interacting component – the institution of erecting statues, the smelting of bronze, and the outcome of WWII – is, in turn, constituted by relevant causal relationships between yet other components. In other words, the new mechanism is in principle indifferent to the level of reality of the components that comprise a mechanism. It is for that reason we find it particularly well equipped to do precisely what Kenny recommends: Combine scientific and humanistic approaches in mutually reinforcing ways.

The harder critique is, in our view, more serious, but pushing to resolve it also promises to be the most rewarding. The challenge as formulated by Roberts is similar to that of Harrison: “How might I apply the ‘new mechanism’ within my own work”? While Harrison focused on how it might help him make diachronic causal claims (what he calls axiological explanations), Roberts asks us how, in practice, one could make synchronic ones. The most directly useful way to apply the new mechanism to her own work, she maintains, is as a *model* for “mapping the causal claims of those within the texts of interest” (that is, as a heuristic). She finds it more difficult to see how she would proceed from this mapping and modeling activity to an actual explanatory reduction that would suggest mechanistic causes of the phenomena. This is an important challenge: Roberts worries that the approach we have sketched lacks “a more robust understanding of causality”, hinting (and citing James Woodward) that such an understanding could be found along manipulationist accounts that emphasize interventions in causal systems. The challenge here has to do with how one determines which components of a system are (causally) relevant – an issue we discussed at some length in our overview of philosophical accounts of causality. Returning to our non-dancing Baptist, for example, do we really have any way of determining whether in that

moment she is motivated by a fear response or in a disciplined manner choosing to ignore the temptation for the sake of a greater purpose? Whether we are reading about her or observing her in the field, the answer is not really. It appears all we have is loose conjecture.

As we discussed in our chapter, one would typically need controlled experiments to determine these sort of causal claims with any meaningful degree of confidence. We do indeed believe experimental methods should be more widely adopted in the humanities. We are enthusiastic about the methodological advances that are currently being made in the psychology and cognitive science of religion toward combining field and laboratory, and devising clever experimental protocols for testing specific hypotheses about the cognitive building blocks of specific religion-related tasks. However, while we wait for experimentalism to get more robust, historians and social scientists of religion already can and should advance the explanatory agenda by attempting to express their theories in causal-mechanistic terms. This, in fact, is a necessary step toward hypothesis-driven research in our field (cf. Bulbulia and Slingerland 2012). In other words, we can use existing theories to hypothesize about the sort of components that *ought* to make a difference, and strive to figure out ways in which those hypotheses could, in principle, be tested. The internally conflicted non-dancing Baptist is a crude illustration of this approach.<sup>7</sup>

Preparing the ground for future experimentalists to test hypotheses is not, however, the only thing that can be achieved by thinking about our subject matter in terms of the new mechanism. We can also learn to test theories by generating computer models and running simulations. The mechanistic models we have been discussing are theories about how a system works. If we convert them into computational (computer-based) models, we can run simulations that produce predictions (or hypotheses) based on the model, and compare these predictions to what actually occurred historically, based on our best historical evidence. Simply specifying a theory precisely enough to produce a model may surface theoretical issues that need to be resolved. Running the model on test data then checks to see if the model is doing what is expected in light of the theory. This may reveal inconsistencies in the narrative version of the theory that need to be corrected or amendments that need to be added. Once the model is working as expected, input parameters can be adjusted to see if the model (the theory) can produce a result that is close to what actually occurred. If it cannot, or can do so only under unrealistic conditions, then the historical data has falsified the theory. Because “manual” efforts to test Weber’s theoretical model in light of historical data demonstrated its limitations, we were able to use it to illustrate how testing can lead to refinement of a model’s components. Computer modeling and simulation will allow us to perform such tests at much more sophisticated level.<sup>8</sup>

### **The Value of Scientific Values: A Response to Spencer Dew**

Diverging from these core discussions about the nature of explanation and how best to seek them, Spencer Dew’s response takes us into a discussion of the ethical and political responsibilities of a scholar. Dew sees “no possibility for politics” in our method, and he finds

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<sup>7</sup> In other work, we have advanced this hypothesis-driven way of thinking about historical source material related to the notoriously difficult topic of subjective experiences. See, for instance, Taves and Asprem 2017; Asprem and Taves 2017: 91-92; Asprem 2017. For some of the experimental difficulties involved, see Nielbo, Andersen, and Schjoedt 2017.

<sup>8</sup> Currently a team of researchers led by Wesley Wildman at Boston University is collaborating with scholars of religion to introduce these powerful methods into religious studies and other humanities disciplines (for more information, see the Modeling Religion Project and its various subprojects, such as the Modeling Religion in Norway project, run by LeRon Shults. See the project website at <https://www.ibcsr.org/index.php/institute-research-portals/mrp> (accessed February 11, 2017).

that absence “disturbing” [add page]. Dew seems to mean this in two related ways. First, that we appear to be unconcerned with matters of value and are promoting an approach that does not engage with the values or claims of our subjects. Second, that our distancing of ourselves from those we are studying may obscure the fact that we too are prone to “folk” interpretations and classifications and, thus, unexamined biases.

With respect to the first concern, we hold to the disciplinary value of describing and analyzing people’s beliefs and practices as evenhandedly as possible, saving our feelings of empathy or opposition for other contexts. As our chapter should make clear, however, we retain the right to explain those beliefs and practices in naturalistic terms, which in many cases conflict with the claims of those we are studying. There is a suitable analogy to be made with the distinction between an opinion piece, reporting, and fact-checking in the context of journalism, where the latter two are crucial to the explanatory process as we conceive of it. Moreover, just as accurate reporting and irreverent fact-checking are of immense value to society and play an important political function, so too should good scientific explanations: in order to take good and effective actions in the world, one must have a good sense of how that world works. Recognizing the value of good explanations is all the more important at times when dominant political forces are becoming increasingly insulated from fact-based critiques.

With respect to Dew’s second concern that our approach distances us from those we study, we would argue just the opposite: We have been struck by the thoroughgoing reflexivity of this approach. We have already mentioned that worldviews are rooted in world-modeling activities that are very broadly shared by organisms, ranging from the bacteria in the petri dish to the human primate wearing a lab coat.<sup>9</sup> Taken to its full conclusion, this insight levels the playing field between scientific and folk world-modeling efforts, and emphasizes that both can be essential parts of constructing a worldview. Moreover, it highlights some aspects of scientific explanations that often go unaddressed. On the one hand, acknowledging that organism’s world-modeling abilities evolved because they enhanced the organism’s chances of survival highlights the limitations of scientific world-modeling. In terms of survival, a painstakingly accurate understanding of one’s situation may not be as useful as a quick approximation. The former is essential when it comes to enhancing our survival through medicine and technology, but the latter is still the basis on which we all act in everyday life. On the other hand, the acknowledgment that all human explanations, whether “folk” or “scientific”, are unavoidably tied up with worldviews undercuts the distinction between facts and values, highlighting instead how science and scholarship always informs our views of what is valuable and what is right. As a collective world-modeling effort, science remains essentially connected to axiology (what we value), praxeology (what we should do), and to epistemology (what we should believe, and why).

Since how we explain the world is inextricably connected with other aspects of our worldview, we must simply accept that scholarly explanations of any human activity will often lead to an implicit conflict with the worldviews of those we study. However, the appropriate attitude toward this fact is not to downplay the soundness of our own explanations for fear that “our” explanations may reduce away “their” values. We can acknowledge the values that shape our scientific worldviews, as well as the extent to which our actions are for the most part governed by evolved “folk” models of the world, not by science. Any good scientific model of meaning making will need to take all this into account.

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<sup>9</sup> See Taves and Asprem forthcoming for a first attempt at outlining a form of “worldview studies” rooted in our naturalistic perspective.

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