The Use of Web-based Argument in the Religion-Science Dialogue
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Abstract
In discussions — especially discussions concerning the relation between the scientific and the spiritual — one often wishes that the background beliefs and metaphysical commitments of the discussants were clearly labeled on a placard mounted on the chest right at the start. How much time could be saved by such a measure; how many arguments at cross-purposes prevented; how many misunderstandings averted? As any philosopher will know, teasing out background beliefs and metaphysical commitments occupies a large part of any philosophical discussion — sometimes the entire discussion if time is short!

It would be tremendously time-saving if in discussing, say, Intelligent Design, one knew ahead of time whether the person believed that available evidence *proves* the existence of an Intelligent Designer and falsifies evolution theory, or whether the person instead thought that evolution is merely an unlikely explanation for the available evidence, making the existence of an Intelligent Designer more likely. Arguments against those two positions would have very different structures.

It occurs to me that most discussants would object to pre-discussion labeling, however useful it might be. And yet, it would be quite natural for someone to make choices based on background beliefs when clicking through links on a website. In fact, the hyperlink structure of a website is ideally suited to funnel visitors through a complex argument based on these kinds of choices. If carefully designed, a web-based argument would have visitors reading through an argument specifically tailored to meet them on their own metaphysical ground, so to speak.

In the paper, I present a rationale for web-based argument through a specific example which clearly displays the advantages of web-based argument.

Webpage: www.mrmont.com/idcsieve

Biography
David Montalvo graduated from Widener University with a B.S. in physics in December 1987, and has been teaching physics, science, and mathematics in the public schools since February of 1988. In August of 2001, he obtained his M.A. in philosophy from West Chester University. David has published articles in both Asian Philosophy and in The Physics Teacher, and he was the Associate Editor of, and a contributor to, "Breaking Barriers: Essays in Asian and Comparative Philosophy in Honor of Ramakrishna Puligandla", Hoffman and Mishra (eds.)

David is a founding member and vice-president of West Chester University's Society for Philosophical Study of Religion, Science, and Asian Thought (SPSRSAT), which is supported by the Local Societies Initiative of the Metanexus Institute.

David's areas of interest include Asian philosophy and religion, philosophy of science, and philosophy of mind. He also enjoys creating webpages, and currently maintains (among others) the website for the PA State System of Higher Education Interdisciplinary Association for Philosophy and Religious Studies at http://www.sshe-iaprs.org, and a website for his students at http://www.mrmont.com.

Purpose
In this paper, I present a rationale for web-based argument, and offer a specific example which displays its advantages. I begin by discussing the role and importance of background beliefs in the dialogue between religion and science, and the troubles one can run into in discussions in which the background beliefs of discussants are not made explicit. I argue that these troubles can be circumvented by presenting a comprehensive argument for or against a position in the form of a multi-page website. To exhibit the advantages in a specific situation, I offer an example of a web-based argument against Intelligent Design/Creationism. A summary of findings concludes the paper.

Background Beliefs and Dialogue
In the dialogue between science and religion — indeed in any philosophical discussion — background beliefs play a major, if not defining role. These background beliefs often take the form of commitments to metaphysical, theological, or even psychological positions that inform debate without always being explicit. It has been my experience in discussions that until one "feels out" the commitments of the other discussants, one cannot really get started on the road to a true dialogue.

Part of the reason for this inability to get started is semantic: one who is an empiricist about scientific relations and another who is a realist about them will mean very different things when using the word "true" to describe those relations, because what makes a relation true for the instrumentalist (its usefulness in accounting for our experience) and what makes a relation true for the realist (its correspondence to an objective world) constitute very different theories of truth. One can imagine two discussants agreeing that the relations in quantum mechanics are true, for example, but then only later discovering that their agreement was quite superficial because one discussant thinks that the relations are an actual feature of an indeterministic world, while the other thinks that the indeterminism exists only in the relations.

The problem is not merely semantic, however. One is often frustrated in debates at what seems to be the intransigence of an opponent who persists in the face of a knock-down argument. To be fair, this persistence is not always mere irrational stubbornness. It may well be that the conclusion we draw from the argument is partially based on a background belief that is not shared among all discussants, or does not take into account a background belief held by other discussants, as for example when a reductionist argument is put forth that notions of God are irrelevant because the world can be described in the mathematical language of physics which does not at all refer to supernatural entities. Here, the unshared background belief is that all significant relations can be described mathematically. It is for these reasons that published papers in analytical philosophy typically start off with disclaimers about the assumptions which ground the argument; thus one avoids easy refutation.

Thus where background beliefs are not made explicit, much time can be lost in

meaningless argumentation, or argumentation at crossed purposes. And this is of critical importance in venues where time for discussion is limited, as it is in the panel discussions and paper-readings Metanexus LSIs often sponsor. One may never end up getting to the real heart of the matter before time runs out. While it may be possible for one to become adept at divining the background beliefs of discussants based on the bits of information contained in questions and responses, it is always risky to generalize from small data samples.

Adding more potential for trouble is the possibility that the discussant has no clearly defined background beliefs at all, or perhaps even holds contradictory background beliefs. These states of affairs can be very difficult to deal with in time-limited situations, where one can run out of time facilitating another person's path to metaphysical commitment in the former case, or posing dilemmas to show the impossibility of maintaining what one knows to be contradictory beliefs in the latter case.

If it were possible for discussants to wear their background beliefs like signs in the open, discussion could be quickly focused on the critically divisive points. In reality of course, this is not an option. But in the end, perhaps it is the time limitation that creates the problem. If not for time constraints, one would not mind these false starts and back-trackings and re-educatings; however, limitations on time are not likely to go away, and in fact are becoming more and more of a factor in our increasingly busy world. As yet unnoticed in all of the discussion so far is the real root of the problem — a structural constraint which has been heretofore unnoticed, mainly because heretofore there was no other alternative. That constraint is the linearity of dialogue.

To explain: because one can only hear and understand one point at a time, discussion must proceed linearly from point to point. The point to point movement proceeds in agreement until disagreement is reached. But then one must proceed point to point until the source of the disagreement is untangled — many times ending up somewhere within the background beliefs.

If one could begin a discussion by giving choices, such as, "Are you a realist or an instrumentalist?", then possibly one could proceed more surely. But this approach is impractical in a group situation, and unsatisfactory in an interpersonal sense. Questions like this, even if it were possible to administer them effectively to large groups, may be seen as more of an interrogation with a view toward labeling discussants so as to dismiss their views, rather than as a measure aimed at expediting fruitful dialogue. Here is where technology can be of some assistance. Although one might consider it interrogation and labeling to be asked about one's background beliefs, one might not think twice about making the same kinds of choices based on background beliefs when clicking through a website.

The Advantages and Disadvantage of Web-based Argument
Well-configured websites aim to facilitate visitors' access to information, products, or services. Visitors navigate according to preferences or make decisions as required in clicking from page to page. In essence, when one does this one is self-classifying

according to beliefs and desires specific to what the website has to offer. (It is now big-business to use this self-classifying information to set up profiles in order to target products and services to what is likely to be of interest to visitors based on a few clicks of a website.) Because of the widespread availability of internet access in this country, this type of self-classification is now second nature to most of us. That willingness to self-classify when navigating a website can be exploited to make a comprehensive web-based argument for or against a position. A well-designed, web-based argument will allow visitors to navigate their way through any one of a number of possible paths based on questions designed to select for certain background beliefs, where each path presents a cogent argument.

In designing a website for a web-based argument, one must therefore consider which background beliefs change the structure or premises of an argument, and construct the navigation and content accordingly. Careful attention must be paid to making navigation choices as close to comprehensive as possible at each step, so that the visitor is not left thinking "I am none of these". One may further want to limit the range of possible background beliefs by placing a disclaimer at the main page of the site clearly specifying the audience; however, too strict a narrowing of the audience essentially negates the benefits of this kind of presentation of argument. The motivation for creating a web-based argument is contained, after all, in our desire to address a position based on many possible background beliefs.

Another benefit of the structure of a web-based argument is that a lack of clarity in background beliefs no longer presents a problem. Visitors can click through the website many times choosing differently each time, trying out, as it were, different background beliefs and receiving the appropriate argument each time. Choosing contradictory beliefs in successive paths through the argument can even be encouraged to show that no matter what the case, there is a clear argument to be had.

By removing the argument from real-time dialogue one gains time, but one does lose the sense of a dialogue. Interaction in a panel discussion or in a question and answer period after a paper session is immediate. Feedback and discourse can still be preserved in the web-based argument, even if it is a little less immediate, through feedback forms, e-mail, and modification of the website. The dynamic nature of a website thus also becomes an advantage: one can edit the pages or the structure as one takes visitors' critical comments into account. The actual interpersonal experience is something that unfortunately cannot be saved with the use of web-based argument, yet its advantages may outweigh this limitation; individuals are of course free to decide the relative merits based on their intended audience and purposes.

An Example of Web-based Argument
I chose Intelligent Design/Creationism (IDC) to be the focus of a web-based argument. I will describe some of the motivations and benefits of using web-based argument in this particular case.

The IDC debate seemed to me to be ideal for trying out web-based argument for two

reasons. First, IDC arguments can take many forms, ranging from attacks on evolution theory and disputes over interpretation of fossil evidence to likelihood arguments about design versus chance. A comprehensive argument against such a range of possible positions is difficult if the approach is linear. Second, many of the arguments for IDC had been answered in the literature, but not all at once. There are many articles and papers in which various aspects of the position had been effectively critiqued, but it seemed to me that the average person who has been exposed to some of the prima facie plausible arguments of IDC had very little chance of seeing any the whole picture addressed.

Once I chose IDC, I quickly realized that I should limit my audience to persons who believe that God created/designed the universe, have come into contact with IDC arguments, and are somewhat or wholly convinced by them. In trying to sort out which background beliefs would change the structure of the argument, I ended up choosing three main questions to ask.

The first major question concerns whether or not the visitor believes that God operates through natural law. One cannot use empirical scientific arguments against IDC and expect a visitor to agree if the visitor believes that God does not have to abide by the fundamental basis of scientific assertions. In that case, philosophical arguments must be adduced to show that IDC arguments, which sometimes purport to be scientific, have unwanted consequences if one assumes that God operates outside of natural law.

The second major question concerns whether or not the visitor thinks that IDC arguments are really just attacks focused on the evidence which supports evolution. This kind of argument calls for producing evidence for evolution theory whose interpretation is unequivocal.

The third major question concerns whether the visitor thinks that the available evidence *proves* that the universe was created/designed, or whether the visitor thinks that the available evidence merely makes creation/design *more likely* than naturalistic causes to explain what we see. Proof and likelihood are two very different things, philosophically speaking. The first can be disposed of with a counterexample; the second requires a careful philosophical argument.

I have posted the web-based argument against Intelligent Design/Creationism at www.mrmont.com/idcsieve . I welcome any feedback — positive or negative — which will help me to improve the argument.

Summary
I have here presented a rationale for web-based argument, in addition to a sample web-based argument. Web-based argument can be used to tailor an argument to the varied background beliefs that can hide behind a discussion of the relationship between science and religion in a way that real-time discussion cannot. One loses certain interpersonal and real-time aspects of philosophical dialogue, however the benefits may make it worth the loss.