# Contested paths

## Analyzing unfolding metaphor usage in a debate between Dawkins and Lennox

Peter Richardson and Charles M. Mueller
Hokkaido Bunkyo University | Fuji Women's University

Recent studies of metaphor usage (e.g., Cameron, 2011; Semino et al., 2013) have shifted focus from relatively static mappings between source and target domains towards an emphasis on how metaphors are appropriated and recontextualized across different genres to convey new meanings and serve new functions. More recently, this emphasis has begun to be applied to the study of metaphor usage in religious discourse (Pihlaja, 2014; Richardson, 2017; Richardson et al., 2021). The current article investigates how metaphors of movement are used in conjunction with metonymy, force dynamics, and conceptual blending to create particular rhetorical effects in a debate between the atheist Richard Dawkins and the Christian apologist John Lennox. It demonstrates how previous figurative language is expanded and reconfigured during the course of the debate in an attempt to establish situated, dominant conceptualizations.

**Keywords:** Metaphor, Cognitive Linguistics, religion, interaction, force dynamics

### 1. Introduction

Conceptual Metaphor Theory (Lakoff & Johnson, 1980, 1999) proceeds from the fundamental premise that both every day and literary uses of metaphor are often underpinned by shared conceptual mappings between a range of source and target domains. This view was subsequently influenced and to some degree challenged by the application of *Complex Systems Theory* to cognitive science and the study of discourse (Gibbs & Cameron, 2008; Larsen-Freeman & Cameron, 2008). The result was a developing focus, both within Cognitive Linguistics and outside of it, around the usage-based analysis of metaphor use and comprehension in discourse (Gibbs & Santa Cruz, 2012). This was soon followed by seminal stud-

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ies utilizing the *discourse dynamic approach* that investigate how participants in the same extended discourse stream share and adapt particular metaphors over the course of their interactions (Cameron, 2011; Pihlaja, 2014). Here, *usage-based* refers to an approach in which language is analyzed in its context and according to its function at a particular moment within a text or discourse stream.

There has also been a relatively recent increase in the number of studies applying aspects of Conceptual Metaphor Theory to the analysis of religious texts. This has culminated in, among others, edited volumes such as Chilton and Kopytowska's (2018) *Religion, Language, and the Human Mind* and Howe and Green's (2014) *Cognitive Linguistic Explorations in Biblical Studies*, in addition to Charteris-Black's analyses of conceptual metaphors in the Bible and the Koran (2004) and his investigation of fire metaphors in a range of religious texts (2017). Many of these studies are firmly situated within a usage-based approach to metaphor analysis. However, there has still been little work in applying the tools of Cognitive Linguistics specifically to the analysis of metaphor in interactive talk about religion.

The current paper therefore focuses on an analysis of how metaphorical source domains connected to movement and force are manipulated in four extracts from a debate between Richard Dawkins, a well-known atheist apologist, and John Lennox, a Christian apologist and mathematician. The study aims to demonstrate the value of analyzing how metaphors in conjunction with metonymy and force dynamics can be used to challenge and persuade in argumentative discourse.

## 2. Background

This article brings together a number of key intersecting strands within discourse analysis and metaphor studies. In particular, the analysis draws on the work of Gibbs and Santa Cruz (2012) and Kövecses (2015) to demonstrate how metaphor use and comprehension are influenced by previous metaphor usage within the same or connected discourses. It also examines the recontextualization of metaphor across discourse, in addition to exploring situational and functional factors (Semino et al., 2013).

A second key strand relates to the application of the tools of Cognitive Linguistics to discourse analysis. For example, Charteris-Black (2017), Hart (2014), Richardson (2012), Richardson and Mueller (2019), and Richardson et al. (2021) have demonstrated how metaphor usage reflects motion schemas, the source-path-goal schema (Lakoff & Johnson, 1999), metonymy and conceptual blending (Fauconnier & Turner, 2002) in its expression and reinforcement of particular

ideological perspectives and religious beliefs. Discourse on religious themes is often based on a competing force-dynamic tension between an agonist and antagonist. Following Talmy (2000), an *agonist* is defined as a "force-exerting entity" that is "singled out for focal attention" (p. 13). Force-dynamic analyses identify these conceptual configurations in language, and also note the relative strength of the forces and the outcome. In some cases, the agonist is able to fulfill its force tendency, whereas in other cases, it is overcome by a competing force tendency referred to as the antagonist. This type of language can then be combined with metaphor, metonymy and personification to create powerful construal effects. For example, Charteris-Black (2017) identifies the combination of THE EFFECT OF DIVINE ANGER IS THE EFFECT OF A FIRE AND FEAR OF DIVINE PUNISHMENT IS A FORCE in particular Old Testament passages (p. 81). In his analysis, he discusses how texts like Isaiah 9: 19, "By the wrath of the LORD Almighty the land will be scorched and the people will be fuel for the fire," create a force-dynamic relationship between the tendency of the Israelites (as the agonist) to go back to their old practices and the threat of punishment (as the antagonist) that is designed to prevent them from doing so.

The final strand is related to the influence of the discourse dynamic approach and positioning analysis (Harré & van Langenhove, 1998). Studies by Pihlaja (2014, 2018, 2021), Richardson (2017), and Richardson et al. (2020) have garnered insights into how religious or atheist participants in online or face-to-face interactions and debates use metaphor, evaluative language or contingent forms of categorization to position themselves and other participants. The current study, reflecting the growing influence of Complex Systems Theory on Conceptual Metaphor Theory, adopts some of the key presuppositions of the discourse dynamic approach. For example, metaphor usage is shown to be fluid, developing over the course of the interaction (Pihlaja, 2014, p. 36); moreover, participants' use of metaphor and metonymy to create categories is shown to be context-dependent and contingent (Pihlaja, 2014, p. 82).

A crucial element in public debates is how participants construct categories to fit with the demands of the participant and audience with whom they are engaging (Pihlaja, 2021, p. 54). In addition, as conflict inevitably emerges, participants "adjust their own positionings to adapt to the emerging conditions of the interaction" (Pihlaja, 2021, p. 54), and adapt their arguments in order to anticipate and withstand challenge (Pihlaja, 2021, p. 69). Language use within a debate must therefore be viewed as an interconnected form of social practice and a complex dynamic system (Pihlaja, 2018, p. 39).

While adopting a discourse focus, the current research continues to adhere to the key claim in Conceptual Metaphor Theory that for much metaphor usage, both conventionalized and novel, the cross-domain mappings from a conceptual

source domain to a target domain reflect psychologically real associations (Gibbs & Santa Cruz, 2012; Kövecses, 2015). In the current study, the combined analysis drawing on conceptual metaphor, conceptual metonymy, underpinning schemas, force-dynamic relationships and blends adds a rich dimension to the analysis of unfolding interactions.

## 3. Method and data

### 3.1 The data

This particular debate between Dawkins and Lennox was selected because it is a well-known, widely available, representative example of this type of discourse involving a popular atheist and Christian apologist. Dawkins and Lennox did debate each other a second time in 2008, but much of the focus in terms of the topics and content originated from this first debate. It was, therefore, considered more appropriate to focus on the 2007 debate, although for an analysis of the second debate, see Richardson et al. (2021, pp. 93–96).

Richard Dawkins has taken part in numerous debates related to religion, science and atheism, and has published a long list of popular books on these subjects, including *The God Delusion* (2006), the topic of the debate. The main argument of this book is that religion is not merely incorrect and unnecessary, but also dangerous and harmful to society.

John Lennox is a Professor of Mathematics at Oxford University and a committed Christian apologist. He has participated in debates against many key atheist thinkers, including two debates against the late Christopher Hitchens in 2008 and 2009, in addition to publishing several books on the topic of Christianity and science, such as *God's Undertaker: Has Science Buried God?* (2009).

The debate took place in Birmingham, Alabama, on 3 October 2007. It was arranged by the Fixed Point Foundation, a Christian organization that explores "innovative ways to defend and proclaim the Gospel and to prepare Christians to do the same" (www.fixed-point.org). The length of the debate, beginning with Dawkins's first turn and ending with his final turn, was 1 hour 35 minutes and 8 seconds, with Dawkins's contribution totaling 6,291 running words and Lennox's contribution totaling 6,564 running words. The format consisted of introductory remarks from Dawkins and Lennox, followed by a discussion of a particular topic from his book *The God Delusion* with a response from John Lennox and then concluding remarks from both participants. Each topic was briefly introduced by a chairperson, and in total six topics were covered over the course of the debate. Paraphrased summaries of the topics are listed below:

Topic 1: *Does religious faith encourage people to be satisfied with not understanding?*
Topic 2: *Is there a conflict between rationalism represented by science and superstition represented by religion?*
Topic 3: *Is the idea of a designer a bad explanation because it always entails a second question of who designed the designer?*
Topic 4: *Is religion harmful to society?*
Topic 5: *Is belief in a god necessary in order to be moral?*
Topic 6: *Are Christian claims about the life, miracles, and resurrection of Jesus untrue, and do they violate the laws of science?*

One interesting element of the debate was that both Dawkins and Lennox often did not adhere to the fixed format and sometimes interrupted or directly responded to each other, often using their time to respond to what the other had just said before focusing on the next topic. This added some key aspects of real-time interaction to the debate.

### 3.2 Identifying metaphor, metonymy, force-dynamic relationships and blends

Once the data had been transcribed, the Metaphor Identification Procedure (MIP) was employed (Pragglejaz Group, 2007). This procedure identifies metaphor by searching for instances of a lexical unit that has a more basic meaning in the sense of being more "concrete", "precise", "historically older" and often "related to bodily actions" relative to the meaning of the unit as used in the text under analysis (Pragglejaz Group, 2007, p. 3). It is then possible to build groupings of metaphors based on shared vehicles or source domains (Cameron et al., 2010).

There are controversial aspects to any metaphor identification rubric, and it is necessary to begin by discussing two such points of controversy here. The first involves deciding whether a specific lexical unit can have a clear concrete reference that can be contrasted with its more abstract reference in the discourse. In the analysis, the online *Macmillan Dictionary* (macmillandictionary.com) was used to help establish instances of contrast in controversial cases.

Another key area of possible controversy is MIP's focus on counting individual words within a multiword metaphor as long as they contribute some semantic content to the phrase as a whole (Pragglejaz Group, 2007, p. 26). Some metaphor researchers have highlighted problems with atomizing metaphor identification in this way because metaphors often occur within fixed expressions (Deignan, 2005). The analysis in this article is not primarily quantitative, so it is not necessary to offer a detailed defense of the statistical implications of counting individual words

in some multiword metaphors. However, it is worth noting that one advantage is that it is somewhat more effective at providing a general sense of the proportions of metaphorical material that appear in a text.

After a fine-grained analysis of metaphor at the lexical level, the analysis identified key metaphorical frames that were used to structure the discourse. The analysis revealed the crucial importance of movement metaphors in the formation, organization and connection of arguments. The choice was thus made to focus on four extracts (Extracts 2 to 5 in the analysis below). These provided salient, representative examples showing how the reconfiguration and elaboration of figurative movement and force dynamics were used to create important rhetorical effects. Biernacka's (2013) procedure for identifying examples of metonymy within those extracts was also employed. Biernacka's (2013) procedure resembles that of MIP, but instead of looking for a relationship in terms of comparison or contrast, it looks for a relationship of contiguity, "defined as a relation of adjacency and closeness comprising not only spatial contact but also temporal proximity, causal relations and part whole relations" (p. 117).

Examples of force-dynamic relationships (Talmy, 2000) and conceptual blends (Fauconnier & Turner, 2002) in the target extracts were also examined. In terms of force dynamics, the focus was on two elements in an argument that were being construed as competing against each other, with one overcoming the other. These elements were then marked as *agonists* and *antagonists* and the dominant force tendency was identified.

In terms of conceptual blends, the focus was on points in the extracts where it was necessary to combine two conceptual clusters to understand the text. The two clusters were then arranged as input space 1 and 2 and their generic elements, those abstracted aspects that were shared by concepts in both input spaces, were identified. The emergent elements of the blend were then identified through an analysis of the unique entailments that could be derived from the integration of the two input spaces. This connects to one of the key premises of Conceptual Blending Theory: the idea that the blending of two conceptual clusters tends to produce emergent elements that are different from what would be expected from a simple juxtaposition of the two input spaces (Fauconnier & Turner, 2002).

## 4. Analysis

### 4.1 Metaphor usage in the debate

Both Dawkins and Lennox used a rich variety of metaphors over the course of the debate. Using MIP, 406 lexical units in the language of Dawkins were identi-

fied as metaphorical (totaling one metaphor per 15.5 words), in comparison to 318 in the language of Lennox (one metaphor per 20.8 words). On their own, these numbers say nothing about how the two participants used metaphor in relation to their arguments. However, the identification process was useful in uncovering key examples that deserved further detailed examination.

Due to this high number of occurrences and the fact that the focus was on key metaphorical frames used within the debate, a comprehensive breakdown of all the identified domains will not be provided. However, it is useful to briefly outline some of the more frequently occurring source domains. Metaphors related to *picking something up, giving something to someone*, or *putting something down* were used more by Lennox (20 occurrences compared to 14 by Dawkins). He also used far more structure and construction metaphors (25 occurrences compared to 11 by Dawkins), for example, "History is littered with attempts to build a godless utopia", in addition to metaphors related to vision and clarity (23 compared to 14 occurrences). Dawkins, on the other hand, used far more metaphors that drew on the source domain of conflict or war (12 compared to 2 occurrences by Lennox), such as, "… the turf wars, in a sense, in American education between creationism and evolution … my scientific colleagues are deeply worried by this and are trying to fight it", and more metaphors related to movement (211 compared to 139 occurrences by Lennox).

Movement metaphors played a particularly important role in the debate. For example, Lennox uses the popular mapping COMMITTED BELIEF IN X IS FOLLOWING X to refer to adherents of Christianity as *following Christ* in contrast to his characterization of the crusaders who engaged in violence as people who "were not following Christ". As discussed below, this connects to Lennox's division of religion into *true* religion (represented by a specific Christian framework of belief) and other religious views.

Both Lennox and Dawkins also unsurprisingly made frequent use of movement metaphors to organize and order their arguments. One example of this is the use of movement metaphors to signal a decision to stop or avoid a discussion on a current topic and make a transition to a new topic, as in the following examples from Dawkins: "let me come on to …", and, "OK, let's go on" (to which Lennox replies, "Yes, yes, let's go on"). These metaphors construe the debaters or the debate itself as moving, while there are also other JOURNEY metaphors that are used to conceptualize the arguments themselves as moving. Many of these examples appear to have some connection with the conceptual metaphor ARGUMENTS ARE JOURNEYS discussed by Lakoff and Johnson (1980, pp. 90–91) and their focus appears to be on how the debate progresses and how new content is introduced (cf. Kövecses, 2002, p. 80). JOURNEY metaphors can be used to conceptualize shared perspectives or progress towards mutual understanding (Cameron,

2011; Semino, 2008), but here they are principally being used to organize systematic disagreement between two competing participants.

Dawkins also makes use of clusters of movement metaphors in order to spatially represent his arguments as movement between points. A representative example of this can be seen below in Extract 1 where Dawkins is arguing for the absence of a connection between atheism and evil acts:

Extract 1: [1] it may even be
[2] that atheism was an integral part of the Marxism
[3] that led them to do terrible bad things
[4] if indeed it was their Marxism
[5] that led them to do bad things
…
[6] I think there is a logical path
[7] from religion to doing terrible things
…
[8] faith leading you to do things
…
[9] There is a logical path
…
[10] I cannot conceive of a logical path
[11] that would lead one to say
[12] because I am an atheist
[13] therefore it is rational for me to kill …

This structuring of arguments through the use of an underlying MOTION schema has the effect of construing the argument as something that can be conceptualized schematically in terms of sources, paths and goals (Gibbs, 2005; Lakoff & Johnson, 1999). This renders the arguments with greater clarity and concreteness, making them more attractive to an audience. Richie (2008) argues in his examination of JOURNEY metaphors that in spite of the fact that many of these metaphors are conventionalized phrases (as is the above use of *led … to* and *path*), it is still possible that perceptual simulations of associated bodily actions are being activated. This suggests the possibility that the high level of repetition used here is triggering multiple simulations, reinforcing the perceived tangibility of the argument in the minds of some audience members. These points are also relevant to the use of movement metaphors in the extracts below.

Metaphor played several key roles in the debate. It was used to organize and frame the arguments, in addition to marking transitions between them. It was also used to express key arguments in the form of analogies, with these being further consolidated through the use of co-occurring clusters of metaphors and metonymy. There was also an important emotional (and therefore persuasive)

component to some of the usages, particularly in the case of conflict metaphors used by Dawkins, for example, his statement that "the real war is between supernaturalism and naturalism", and metaphors utilized by Lennox that relied on personifications of the heart, for example, "our hearts cry out for justice". Another key function of metaphor was its core role in the competition between the participants in terms of who could offer the strongest or clearest way of conceptualizing a contested topic or point. One example of this, partially covered in the analysis below, is the shared notion of gaps in scientific knowledge about the Universe, with Dawkins arguing that the role of science is to fill gaps and Lennox arguing that some gaps cannot be filled, and that these unfilled gaps point to the existence of God.

The remainder of our analysis will focus in detail on how particular rhetorical effects are created by the manipulation of movement metaphors in conjunction with metonymy, force dynamics and blending over the course of the debate. Our analysis will focus in detail on four key extracts, two from Dawkins and two from Lennox.

### 4.2 Science as a person pushing forward

At several points in the book *The God Delusion* and throughout this debate, Dawkins argues for the need to view religion and science as belonging to two distinct, diametrically opposed categories. It is important to point out that at other points in his book (e.g., Dawkins, 2006, pp. 58–59), and during the debate, Dawkins does make important distinctions between different types of religion, such as Buddhism, deism and monotheism. However, these more nuanced and complex distinctions become eclipsed at particular points during his discourse by the foregrounding of these binary categories. This persuasive and emotive discourse strategy can also characterize religious language (Hobbs, 2021, pp. 55–56), and, as we shall see below, Lennox also makes use of it. One particularly salient example from Dawkins involves a conceptualization of science as an idealized, personified agent with elements of metonymy:

Extract 2: [14] the scientific enterprise is an active seeking
[15] an active seeking out of gaps in our knowledge
[16] seeking out of ignorance
[17] so that we can work to plug that ignorance
[18] but religion teaches us to be satisfied with not really understanding
[19] every one of these difficult questions that comes up
[20] science says
[21] let's roll up our sleeves and work on it
[22] religion says

[23] Oh God did it
[24] we don't need to work on it
[25] God did it
[26] It's as simple as that
[27] we have no thrusting force
[28] pushing us on to try to understand
…
[29] it prevents the further work on the problem

For Dawkins, the key point is not that science is an *a priori* possessor of truth, but that it is able to discover truth through hard work (figuratively represented as physical labor in the phrase "roll up our sleeves") and active forward momentum. This gives us the following set of conceptual metaphors:

SCIENTIFIC RESEARCH IS PHYSICAL LABOR
SCIENTIFIC RESEARCH IS PURPOSEFUL FORWARD MOVEMENT
SCIENTIFIC RESEARCH IS LOOKING FOR GAPS TO FILL
COMMITMENT TO SCIENCE IS A PROPELLING FORCE

In contrast to this, religion and religious thinking is personified as a complacent group of people drawing the energy and purpose from this forward advancement through their passive faith that gaps have already been explained by sacred texts. This gives us the contrasting conceptual metaphors of RELIGIOUS FAITH IS THE ABSENCE OF PURPOSEFUL FORWARD MOVEMENT and RELIGIOUS FAITH IS THE ABSENCE OF PHYSICAL LABOR. Line 29 also subtly takes it further by dropping the focus on "we" and "us" and therefore conveying the implicit construal of religious faith as preventing scientific progress *generally* (not just for those people who are religious). This possibly ties in with Dawkins' earlier concerns about the attempts of US conservative Christian groups to integrate the teaching of intelligent design into science classes and gives us the more specified conceptual metaphor: COMMITMENT TO RELIGIOUS FAITH IS AN OBSTACLE TO SCIENCE'S PURPOSEFUL FORWARD MOVEMENT. This placement of *all* scientists and *all* religious people into two competing roles within a force-dynamic relationship projects starkly contrasting, highly idealized conceptualizations of atheists as scientists and religious people as inherently anti-science.

"Religion teaches" and "science says" fits with viewing the use of personification in the domain of political discourse as overlapping with metonymy (Semino, 2008) or co-occurring with it (Littlemore, 2015). In combination with the SUBEVENT FOR EVENT metonymy in line 21 (rolling up one's sleeves as part of the process of taking part in a physical task), they serve the function of presenting "abstract and complex processes in terms of relatively simple human scenarios" (Semino, 2008, p.103). Such usage calls to mind Musolff's (2004) description of

scenarios in political discourse as "ensembles of little scenes or storylines" which express "evaluative arguments and judgments" (p. 17).

Religious language is rich in terms of metaphors related to purposeful movement and the attainment of goals (Richardson, 2012, 2017). It is thus common to find clusters of metaphors that draw on references to *paths, ways, walking, being led, being guided*, and so on. An iconic example from the New Testament would be the reference to different types of life paths, "Enter through the narrow gate. For wide is the gate and broad is the road that leads to destruction, and many enter through it" (Matthew 7:13, *New International Version*). Using the terminology of Talmy's (2000) force dynamics, Dawkins can be viewed as challenging this common conceptualization by presenting religion as having a force tendency toward rest (and thus not moving forward toward a goal), while also having the role of an *antagonist*, or a competing force attempting to counteract the forward movement of scientific progress (the *agonist*).

### 4.3 Science as a person waiting

In *The God Delusion* (2006), Dawkins states that he is not overly concerned with the fact that science is yet to uncover a precise description of how life first began (p. 162). He finds the supernatural explanation deeply unsatisfactory because explaining the origin of the Universe by invoking an intelligent designer introduces the more complex problem of accounting for the origin of the intelligent designer. The premise that explanations about origins must move from the simple to the complex is fundamental for Dawkins. He also argues that the origin of life only needed to happen once, so, "we therefore can allow it to have been an extremely improbable event" (p. 162). These points explain why Dawkins is able to concede that scientists still disagree about precisely how life first began, while also continuing to insist that Darwinism is essentially (line 38 below) the only viable explanation. These points also account for his close association of atheism with Darwinism. However, when it comes to the origin of the laws of the Universe and matter and energy, he acknowledges that this is an area where a lot of work still needs to be done:

Extract 3: [30] Darwin explains life
[31] and no serious scientist doubts that
[32] so we go back to the previous
[33] rather more difficult
[34] stage in the understanding of where we've come from
[35] which is the origin of the Universe
[36] and that really is genuinely difficult
[37] we don't know

[38] we understand essentially biology
[39] we don't understand cosmology
[40] in a sense we could say that cosmology is waiting for its Darwin
...
[41] the anthropic principle
[42] the principle that we have to be in a universe
[43] capable of giving rise to us
[44] plus the principle of the multiverse
[45] provides at least an interim satisfying explanation
[46] in a way that a creator couldn't possibly be a satisfying explanation
[47] for the reason that I've given

Personification and metonymy are being used again here, this time to represent the diverse field of cosmology as a single being with a single perspective and purpose. However, this time the particular MOTION and FORCE schemas underpinning *science* in Extract 2 are absent. The act of *waiting* in line 40 now reconfigures the MOTION schema so that it is Darwin as a PERSON FOR PRODUCT metonymy (Radden & Kövecses, 1999) that is expected to move towards the waiting cosmology in the future. At this point in the debate, the scientific field of cosmology is therefore construed as static and passively waiting for the answers to arrive.

This sets up a conceptual blend (Fauconnier & Turner, 2002) involving the input spaces of a potential future cosmological explanation for the origin of the Universe and a past biological explanation for the origin of life (Figure 1). The use of the Darwin metonymy in the blend allows for some subtle but powerful emergent elements and entailments. First of all, it rests on the assumption that what is expected is a natural (as opposed to supernatural) explanation. Secondly, the construal of Darwin's theories as an explanation of life in line 30 (rather than primarily focused on the theory of evolution and an explanation for the diversity of life) combines with the description of that explanation as one that "no serious scientist doubts" (line 31). This is then blended with an expected cosmological Darwin that has the emergent elements of providing a natural explanation that is beyond doubt for the origin of the Universe.

This is further consolidated by the sudden absence of a FORCE and MOTION schema underpinning cosmology in conjunction with the use of "interim" in line 45. Given the content and intensity of Extract 2, the MOTION schema may be expected to remain consistent for cosmology to be construed as actively working *towards* a solution. However, the sudden reconfiguration of forward progress into static waiting adds to the effect of expectation with a sense that the situation is temporary and normal progress will soon resume. An interim suggests a temporary period before the focal situation is expected to resume or begin, and the absence of the underlying schemas makes that sense more tangible. Taken

together, the excerpts' figurative language contains the subtle, implicit suggestions that the arrival of a *natural* explanation for the Universe is both *inevitable* (or at least highly anticipated) and, when it arrives, *beyond doubt*.

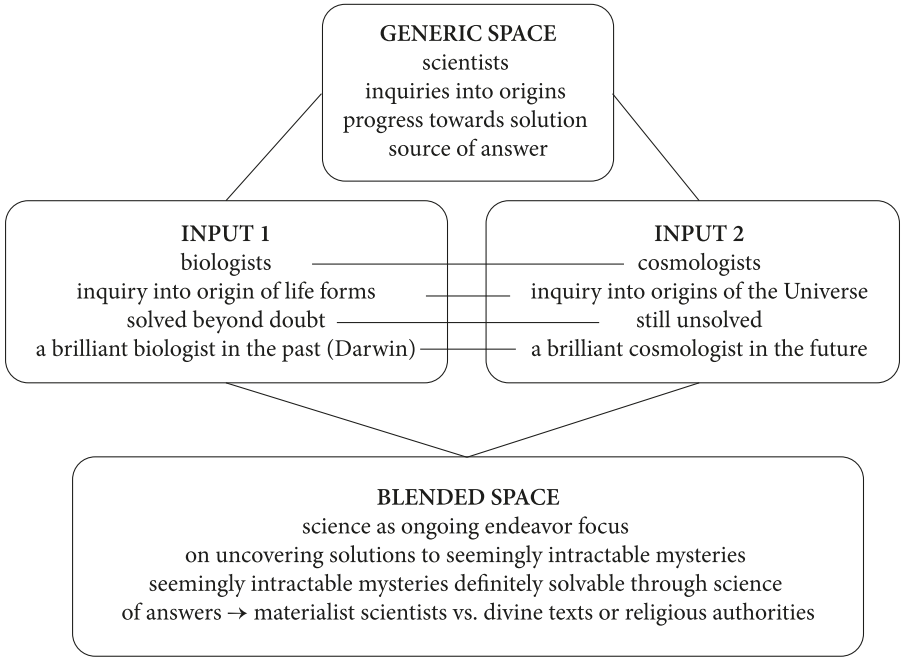


**Figure 1.** "Cosmology is waiting for its Darwin" blend

As Extracts 2 and 3 above show, the manipulation of metaphor and metonymy serve the purpose of adding partially concealed entailments and emergent structures to arguments. These are effective in a debate because, on the one hand, the implicit nature of the entailments makes them difficult to engage with and counter (Richardson, 2017), and on the other hand, the use of physical source domains adds tangibility and concreteness to the structure of the arguments.

An important point here is how speakers can reconfigure their own use of MOTION and FORCE schemas at points in discourse to bolster their own argument while undermining the arguments of their opponent. For example, Dawkins is able to temporarily abandon his construal of science as a moving force so as to portray one branch of science, cosmology, as a personified entity that is *not* moving but instead is "waiting for its Darwin". This then provides the basis for the blend in Figure 1, which is persuasive in light of the analogy (e.g., biologists and cosmologists) and disanalogy links (e.g., solved vs. unsolved) between the two input spaces. These links invite the inference that members (i.e., branches of sci-

ence) of the same category (science) can be expected to follow similar trajectories of development.

## 4.4 Religion as the driving force of science

Lennox responds to this simplified binary characterization of religion and science by accepting the use of a FORCE schema, but attempting to reconfigure the role of religion in the force-dynamic relationship:

Extract 4: [48] … human beings became scientific
[49] because they expected law in nature
[50] and they expected law in nature
[51] because they believed in the lawgiver
[52] I think that is profoundly important
[53] because it means far from religion hindering science
[54] it was the driving force behind the rise of science in the first place

Lennox's argument here makes no attempt to question the conceptual metaphor SCIENTIFIC RESEARCH IS PURPOSEFUL FORWARD MOVEMENT, but it does challenge the locating of religion as an obstacle preventing general scientific progress (identified above as COMMITMENT TO RELIGIOUS FAITH IS AN OBSTACLE TO SCIENCE'S PURPOSEFUL FORWARD MOVEMENT). It achieves this by presenting a counter conceptualization, COMMITMENT TO RELIGIOUS FAITH IS A PROPELLING FORCE, which can be traced back to THE LAWGIVER/GOD IS A PROPELLING FORCE. This reinforces rather than competes against COMMITMENT TO SCIENCE IS A PROPELLING FORCE and construes faith as an energizing element behind science exerting a force tendency toward purposeful movement, not towards rest. Lennox then sets up a force-dynamic loop where religious faith is not just the driving force behind science, but is also intensified by scientific discovery, "when Isaac Newton for example discovered his law of gravity … his praise for God was increased."

Lennox's response that religion encourages scientific progress can be viewed as an initial reconfiguration of the force-dynamic metaphor used by Dawkins. This is then followed by a second reconfiguration in the form of a proposed mutually supportive relationship between religion and science. The progression is shown in Figure 2. As can be seen, Dawkins portrays religion as a blocking force that will ultimately be overcome by the greater force of science. Lennox, instead of simply denying that this is the case, counters with an alternative set of force dynamic configurations. Initially, this involves the construal of religion (and Christianity, in particular) as a powerful and necessary helping force that propels science forward. Lennox then modifies his position by positing two configurations, suggesting that both religion and science serve as powerful forces that

mutually support each other. Lennox presumably opted for this more complex force-dynamic construal so as to undermine Dawkins' suggestion that science and religion are inherently incompatible.

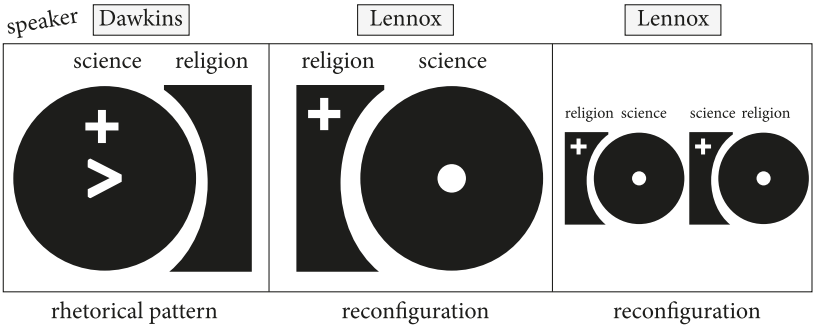


**Figure 2.** Force-dynamic pattern of Lennox's response to Dawkins metaphorical framing of science as a force hindered by religious faith

A tug-of-war can therefore be seen between Dawkins and Lennox in terms of offering diametrically opposing conceptualizations to the audience. Both Dawkins and Lennox are not just using specific interpretations of evidence to "win" the argument, but they are also relying on the use of movement metaphors and force-tendency construal to construct persuasively simple and compelling images and scenarios of what they propose as the appropriate understanding of reality (cf. Goatly, 2007).

### 4.5 Atheism as being taken to the wrong location

Throughout the debate, Lennox repeatedly returns to the argument that it is impossible to construct a genuine moral system without the Christian Bible. He conveys this through his own binary representation: a choice between a morality derived from (a particular, true conception of ) God, or the acknowledgement that it is impossible to talk about morality. He sets up this choice by quoting Dawkins' (1995) own use of figurative language referring to natural selection as a *blind* force, along with the statement that "DNA neither knows or cares, DNA just is, and we dance to its music" (pp. 131–132). Dawkins' use of personification in reference to DNA serves to indicate a lack of human (let alone divine!) agency in certain key domains such as the origin of life. Lennox reacts to this mechanistic view, arguing that it is impossible to derive meaningful values from blind forces.

Lennox draws on movement metaphors to structure these points related to morality, arguing that "you cannot go from facts to values" because this "leads to a

kind of utilitarianism", which for Lennox amounts to "ethical confusion". Lennox also claims that Dawkins' description of the origin of everything in terms of blind forces constitutes an attempt to move people from one world to another, "Now that strikes me as a hideous world that you're delivering us into that has no morality at all". He later returns again to this metaphor of being brought to a location:

Extract 5: [55] and I would remind you
[56] that the world that Richard Dawkins wishes to bring us to
[57] is no paradise except for the few
[58] it denies the existence of good and evil
[59] it even denies justice
[60] but
[61] ladies and gentlemen
[62] our hearts cry out for justice

Lennox is encouraging his audience to reconceptualize Dawkins' arguments as a path leading to a harmful destination. This further fleshes out Lennox's response to Dawkins' force-dynamic, binary representation of science and religion in Extract 2. In the previous section, Lennox's reconfiguration of the science-religion relationship was examined. However, here, Lennox's rhetorical strategy involves an elaboration that introduces a second path that is confined specifically to Dawkins' arguments through the use of "you're delivering us into" and "Richard Dawkins wishes to bring us to" in line 56. This is significant because it creates the opposite effect of Dawkins' language above, which represented science or cosmology as a single homogenous entity or person. With this use of language, Dawkins' arguments are being disempowered through their reduction to the ideas of a particular individual, which in turn renders them unrepresentative of a consistent general framework.

The addition of the strong agency pattern to the MOTION schema is also significant. The verbs *delivering* and *bring* both represent the audience as passive and even in some sense helpless. One further entailment here is that the audience is being moved to a location without fully understanding its true nature. A final entailment involves the contrast between a personified representation (in terms of its denials of good, evil and justice) of the final destination and the personification of "our hearts" in line 62. This contrast sets up a stark binary choice between an unnatural, external agent that denies morality, and a natural, internal agent that demands it, with Dawkins cast in the role of someone trying to coerce members of the audience into accepting the former despite the fact that it contravenes their intuitions about reality. All of these points serve the rhetorical function of encouraging the audience to contest Dawkins' arguments.

## 5. Conclusion

Metaphor occurs frequently in discussions and debates on abstract topics. The current study shows that speakers in a debate are highly sensitive to their opponent's use of metaphor and use several patterns of response. Although two obvious alternatives would be to use the opponent's metaphor as is or to simply disregard it when formulating a response, these all-or-nothing options did not occur in the analysis. Instead, the speakers sought to alter the metaphor for their own purposes by either reconfiguring or elaborating on previous elements. The findings suggest that debaters, apparently aware to some degree of the power of metaphor to explain ideas and convince an audience, do not want to let their opponent's metaphor stand intact and unchallenged. It was also found that participants reconfigured their own metaphors dynamically as the metaphors were recruited to play alternative roles in their arguments.

The potential to recast metaphor, force dynamic relations and other figurative devices dynamically may explain one interesting aspect of the debate. The format gave Dawkins the right to initiate the discussion of topics, which were then followed up by Lennox. At several points in the debate, Dawkins grew frustrated with this format, complaining that it deprived him of the opportunity to respond to his opponent's statements. This may, in part, reflect the fact that the debate format gave Lennox more opportunities to alter his opponent's metaphorical framing to suit his own purposes.

The analysis in this study shows that movement metaphors are ubiquitous and serve a number of key functions, especially in terms of charting movement through a series of arguments in a debate and in conveying a sense of progress via the source domain of journeys. The examples demonstrate a constant dynamic development in the way metaphors related to movement and force are being reappropriated and reconfigured to serve multiple, shifting functions within the same relatively short discourse stream. For example, for Dawkins, the need to create a conceptualization of the forward movement of X (in this case cosmology) away from a current position may be crucial at one point in the debate. However, this rapidly reorganizes itself as his argument develops into creating an image of X now waiting at a current, temporary location for Y to move towards it (the arrival of Darwin). In a part of the debate not covered in this analysis, this then shifts once again into the need to emphasize an image of two points: X and Y (atheism and doing terrible deeds) with no possible path or movement between them. All this shows how crucial the manipulation of figurative movement is in the construction of an argument.

As seen in the analysis, this is then combined with the manipulation of force-dynamic relationships to create rich imagistic patterns of contested movement across space. The above analysis suggests that figurative language, especially in the form of metaphor and metonymy, in addition to consolidating key non-metaphoric elements of arguments, combines to form part of the fundamental fabric of the arguments themselves. The result is a constant tug-of-war between the two debaters as they attempt to establish a dominant conceptualization in the minds of the audience in terms of "the way things are".

On the surface, it sometimes seems that the participants represent diametrically opposing ways of interpreting the evidence and therefore are doing nothing more than talking *at* each other, rather than engaging in a meaningful interaction. However, through the application of various tools drawn from a Cognitive Linguistic approach, a complex, interactive sequence of turns emerges with the responses of the participants exhibiting highly sophisticated and finely nuanced levels of engagement with each other's conceptualizations. There is little evidence of bridge-building or empathy-forming in these debates, but it is clear that the participants are listening intently to each other.

This article has attempted to demonstrate the value of a Cognitive Linguistic analysis of interactions related to religion. Further research is required to expand the scope of these types of analysis to include different types of religious believers and contexts. Cognitive Linguistic tools could also be used to contribute to existing analyses from the discourse-dynamic approach into how tensions form and dissipate in conversations involving competing religious beliefs and systems. Analyses of religious language drawing on the notions of conceptual metaphor and metonymy, force dynamics and conceptual blending are now well established in the research literature. It is therefore hoped that these analyses will soon expand to include the many varieties of religious interactions.

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## Address for correspondence

Peter Richardson
Department of Liberal Arts
Faculty of International Studies
Hokkaido Bunkyo University
196-1
5 chome
Koganechuo
Eniwa, Hokkaido, 061-1449
Japan
petthai7@hotmail.com

## Biographical notes

**Peter Richardson** started his academic education with a degree in theology and an MA in Biblical Studies. He then taught English in Taiwan, Thailand, then Turkey, and eventually returned to the UK to complete his second Masters (Applied Linguistics) and PhD in English Language

at the University of Birmingham. His research focuses on the Cognitive Linguistic analysis of religious discourse and includes the co-authored book, *An Introduction to Cognitive Linguistics and Religious Language*. He moved to Japan in 2013 and currently is a Professor in the Department of International Liberal Arts at Hokkaido Bunkyo University.

**Charles Mueller** started his academic career teaching English for Academic Purposes at George Washington University (2004 – 2013), and is currently a Professor in the department of English, Language and Culture at Fuji Women's University, where he teaches a seminar on Cognitive Linguistics. Most of his research has been conducted within the framework of Cognitive Linguistics and second language acquisition. However, his undergraduate degree and first master's degree focused on Asian philosophy with a particular focus on Buddhism. His recent research has focused on applying metaphor and Cognitive Linguistics to the study of Buddhist, Christian and atheist language.

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