

New Frontiers in Islam and Evolution

with Shoaib Ahmed Malik, "Introduction to the Symposium on Islam and Evolution"; Safaruk Zaman Chowdhury, "Explaining Evil in the Bio-Sphere: Assessing Some Evolutionary Theodicies for Muslim Theists"; Karim Gabor Kocsenda, "Shī'ī Readings of Human Evolution: Ṭabāṭabā'ī to Ḥaydarī"; Khalil Andani, "Evolving Creation: An Ismaili Muslim Interpretation of Evolution"; David Solomon Jalajel, "Presumptions about God's Wisdom in Muslim Arguments for and against Evolution"; and Shoaib Ahmed Malik, Hamza Karamali, and Moamer Yahia Ali Khalayleh, "Does Criticizing Intelligent Design (ID) Undermine Design Discourse in the Qur'ān?"

DOES CRITICIZING INTELLIGENT DESIGN (ID) UNDERMINE DESIGN DISCOURSE IN THE QUR'ĀN? A KALĀMIC RESPONSE

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Abstract. Some Muslim thinkers argue against evolution using intelligent design (ID) arguments. One possible impetus for this line of reasoning is the several indications of design mentioned throughout the Qur'ān. Therefore, criticizing ID could be seen as a direct attack on the Qur'ānic outlook. However, this article will argue that this is a false equation. The Qur'ānic design argument, as articulated in the tradition of Sunnī scholastic theology (*kalām*), argues for the existence of a supernatural God by acknowledging natural causes that bring about designed phenomena in the universe. By contrast, Muslim thinkers who use ID to argue against evolution are arguing for the existence of a supernatural being through the supposed inability of science to explain designed phenomena through natural causes. Thus, there is a fundamental difference between the design outlook provided in the Qur'ān versus the arguments of ID. Accordingly, this article argues that critiquing ID does not undermine the design discourse of the Qur'ān.

Keywords: contingency; creationism; design arguments; evolution; intelligent design; Islam; Islamic exegesis; Qur'ān

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INTRODUCTION

Out of the various subfields in the broader discussion of Islam and Science, evolution remains as one of the most contentious and interesting topics. It is then no surprise to see a steady development of publications on Islam and evolution in the past few decades (Nasr 2006; Jalajel 2009, 2018; Guessoum 2016; Qadhi and Khan 2018; Malik and Kulieva 2020; Malik 2021). Some advocates have no problem with reconciling Islam and evolution in its entirety, while others either completely reject it or reject aspects of it. Rejecting evolution can be due to a variety of reasons. These include the problem of randomness, the indeterminism in the process of evolution that (for some) entails a God who does not know what he is doing and thus undermines teleology; naturalism, because evolution is seen as being closely linked to atheistic paradigms; and scriptural tension, as some Muslims see a contradiction between evolution and Islamic scripture, which describes the creation processes of Adam and Eve. So, there are a host of reasons why some Muslims are sensitive with this particular discussion (Guessoum 2016; Malik 2021).

A paradigm that is seen as an alternative to evolution, which is popular in Christian and Muslim circles, is the intelligent design (hereon referred to as ID) narrative.¹ The ID argument was first popularized by Christian proponents such as Michael Behe (2003, 2006, 2019), Stephen Meyers (2009, 2013), and William Dembski (1998, 1999, 2002, 2004) among others in the 1990s (Laats and Siegel 2016, 47). Since then, there have been a plethora of books, conferences, and cyber resources on the topic (Bowler 2007; Forrest and Gross 2007; Kojonen 2016). The ID argument is presented as a scientific alternative to evolution. Neo-Darwinism, which we assume is the standard position of evolutionary biology currently, relies on natural selection and random mutation as its causal mechanics. The ID argument is a conjunction of a negative (*Neg_{ID}*) and a positive (*Pos_{ID}*) thesis (Kitcher 2007, 7):

Neg_{ID}: The negative thesis states that natural selection and random mutations on their own cannot account for *some* of the complex features we can see in living organisms (Kojonen 2016; Malik 2021, 66–83).

Pos_{ID}: The positive thesis states that complex entities in the biological kingdom is *better* explained by an intelligent designer (Dembski 2004; Behe 2019; Meyers 2021).

In their public discourse, they do not make any claims about the nature of the designer; it could be a natural designer, for example, an alien, or a supernatural designer, for example, God. However, in their personal views, the designer is none other than God, a supernatural being (Forrest and Gross 2007; Koperski 2014, 201–202). This is clearly evident in Stephen Meyer's (2021) new book, *Return of the God Hypothesis*, for instance.

Table 1. Summary of opinions of ID proponents and evolutionary biologists

Camp	Response	Options
ID	Designer	Supernatural or a natural designer(s)
Evolutionary biologists	Naturalistic explanation	Neo-Darwinism or other non-Darwinian paradigms

To add nuance here, there are evolutionary biologists, for example, proponents of The Extended Evolutionary Synthesis, who agree with some of the criticisms levelled against Neo-Darwinism by the ID crowd, in that it does not adequately explain some things (Pigliucci and Müller 2010). However, they do not necessarily resort to a supernatural or a natural intelligent designer for an explanation. Rather, these evolutionary biologists feel that there might be other natural causal mechanics that should be entertained to help with such phenomena. In other words, there could be other evolutionary, naturalistic laws that could better explain what Neo-Darwinism cannot (Uller and Laland 2019). This is why there is currently an ongoing debate about the future of Neo-Darwinism; whether it will remain, be abandoned, or revised into a new paradigm is presently being discussed by the scientific community (Laland, Uller and Feldman 2014; Wray, Hoekstra and Futuyma 2014). Either way, both camps resort to naturalistic explanations for evolution. These nuances are summarized in Table 1.

Muslim thinkers like Muzaffar Iqbal (2003) and Harun Yahya (2001, 2006), both of whom are creationists,² rally behind the ID narrative. In fact, it would not be a stretch to say that they both consider the ID narrative as *the* Islamic perspective. But unlike some of the Christian proponents of ID, Iqbal and Yahya understand the designer to exclusively be a supernatural God; neither of them entertains the possibility of natural designers which some Christian proponents of ID are open to in their public discourse. Accordingly, they believe that the existence of God is undermined by natural evolutionary explanations of design. Both of them substantiate their design-motivated arguments against evolution with materials developed by Christian proponents of the ID movement, with Behe being a popular reference. Consider Iqbal (2003) who says:

One of the main characteristics of various theories of evolution is their reliance on ‘chance’ as means of evolution rather than a ‘design’. For if it could be proved that there exists no design in the emergence of species (or individual organs) and that each species and organ becomes perfect through gradation, as Darwin proposed, then one can eliminate not only the design, but also the Designer. However, if on the contrary, it can be shown that there exists no possibility of chance evolution of perfect organs and species, because of their complexity, and then Darwin’s theory will break down.

Darwin himself was conscious of this fact. He wrote in *The Origins*: “If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down.” There exist in nature thousands of examples of these complex organs as well complex chemical reactions that could not have been a result of successive modifications. Michael Behe has produced numerous examples of this nature in his *Darwin’s Black Box* examples that range from the biochemistry of vision to defensive mechanisms of bombardier beetle to the complexity of the bacterial flagellum. Likewise, William Dembski’s *The Design Inference* convincingly shows how specified events of small probability cannot be a result of chance. What we propose to do here is simply to direct attention to the fact that argument from design is such an old, well-established argument that there exists an enormous amount of data on the subject in all traditional cosmogonies which refutes mechanism proposed by Darwin’s theory.

In another place, Yahya (2006, 100–101) raises similar concerns:

For example, as Michael J. Behe states in his book, 80% of the articles on molecular evolution published in the *Journal of Molecular Evolution* (JME), the world’s best known molecular biology periodical, have to do with the comparison of amino acid sequences. For example, all the amino acids of two proteins are arranged and examined in a series or the nucleotides on a DNA molecule are compared. Behe says that this comparison does nothing to remove the impasse confronting molecular evolution. He writes: “But the root question remains unanswered: What has caused complex systems to form? No one has ever explained in detailed, scientific fashion how mutation and natural selection could build the complex, intricate structures discussed in this book.” The reality stated in Behe’s words is quite clear: Evolutionists give no clear answer to questions about life’s real origins, because it’s impossible to answer these questions in terms of evolutionary processes and random stages of development. For this reason, they ignore their deficiencies and continue to perpetuate the Darwinist spell. They fill their publications with irrelevancies, decorative illustrations and Latin words that have nothing to do with proving evolution. In this way, they obscure their explanations of basic subjects and trust that they have deceived people.

Clearly, both Iqbal and Yahya see evolution as being antithetical to Islam because they believe that designed and complex elements in creation can only be clear indications of God, a supernatural being, and not chance-like, natural explanations as being promoted by evolution. Given that natural designers are not even considered by them as a viable option, for the purposes of this article, our focus hereon is entirely on the apparent competing explanations of a supernatural designer and natural causal mechanisms in the context of evolution and ID. The differences between Christian and Muslim proponents of ID, and evolutionary biologists are summarized in Table 2.

Not all Muslim thinkers share the views of Iqbal and Yahya. ID has been criticized on two fronts by Muslim thinkers. The first criticism is by Nidhal Guessoum, who is a pro-evolutionist. In his book, *Islam’s Quantum*

Table 2. Summary of reviewed positions

Camp	Response	Options
Christian proponents of ID	Designer	Supernatural or a natural designer(s)
Muslim proponents of ID	Designer	God
Evolutionary biologists	Naturalistic explanation	Neo-Darwinism or other non-Darwinian paradigms

Question, he critiques the scientific issues that Yahya raises against evolution, which include gaps in the fossil record, the problem of thermodynamics, and arguments of improbability (Guessoum 2011, 318–19). The last one is central to the ID narrative. Guessoum (2011, 319) criticizes Yahya’s argument against evolution based on the improbability of protein formation:

Yahya makes a conceptual and mathematical mistake in performing this calculation: He assumes that all the amino acids come together at once when forming proteins; in that case, of course, the probability would be ridiculously low; in reality, however, the process takes place step by step. This argument is as false as claiming that the uranium nucleus (which has 238 nucleons in its most common form) could never form because the probability that 92 protons and 146 neutrons fuse together at once is (similarly) negligibly small; in fact, we know that protons fuse (in three steps) to form helium-4, then heavier and heavier nuclei form by fusion.

In other words, loading up scenarios of improbabilities to make a case against evolution is problematic precisely because it is not a single event. There are several successive steps that come together for the eventual development found in evolutionary scenarios. For Guessoum, ID advocates like Yahya misguide the lay audience by talking about improbabilities when the situation is not as straightforward (also see Kitcher 2007, 73–116).

Shoaib Ahmed Malik (2021), who also believes in the potential compatibility between Islam and evolution, criticizes ID from a metaphysical angle. He argues from the perspective of the Ash‘arite paradigm, a Sunnī theological school, which is representative of the scholastic tradition known as *kalām* in Islamic intellectual history. Malik looks at the discussion specifically through the lens of Abū Ḥāmid al-Ghazālī. He uses this framework to break the presumed bifurcation and connection between theism and ID, and atheism and evolution. Relevant for us here, Ash‘arism stresses on occasionalism as its divine action model and the radical contingency of the world. Accordingly, Malik argues that if ID is being used as an argument for God’s existence, then resorting to complexity as if it is the only marker for theism is a very poor line of reasoning in the Ash‘arite paradigm. Every

contingent thing in the natural world, whether it is simple or complex, is evidence for the existence of a supernatural necessary being, which is God; localizing God to the complex quarters of the world while ignoring everything else is an inconsistent picture. There are other criticisms that Malik raises against ID, but these are sufficient for our purposes.

Missing from the current literature, however, is how ID should be understood from the perspective of Islamic exegesis (*tafsīr*). After all, there are many verses in the Qurʾān³ that clearly allude to how the universe is designed, has laws, and exudes complexity:

There truly are signs in the creation of the heavens and earth, and in the alternation of night and day, for those with understanding. (Qurʾān 3:190)

And when he saw the moon rising he said, ‘This is my Lord,’ but when it too set, he said, ‘If my Lord does not guide me, I shall be one of those who go astray.’ (Qurʾān 6:77)⁴

Another of His signs is the creation of the heavens and earth, and the diversity of your languages and colours. There truly are signs in this for those who know. Among His signs are your sleep, by night and by day, and your seeking His bounty. There truly are signs in this for those who can hear. Among His signs, too, are that He shows you the lightning that terrifies and inspires hope; that He sends water down from the sky to restore the earth to life after death. There truly are signs in this for those who use their reason. (Qurʾān 30:22–24)

He created the heavens without any visible support, and He placed firm mountains on the earth—in case it should shake under you—and He spread all kinds of animals around it. We sent down water from the sky, with which We made every kind of good plant grow on earth. (Qurʾān 31:10)

Do the disbelievers not see how rain clouds are formed, how the heavens are lifted, how the mountains are raised high, how the earth is spread out? (Qurʾān 88:17–20)

These scriptural references, along with the popular influence of Muslim thinkers who use the ID argument in their apologetics, could lead some interlocutors to conclude that criticizing the ID argument is equivalent to criticizing the discourse of design in the Qurʾān. This can be a severe charge, not only because it can lead religious Muslims to discount philosophical arguments against ID on purely religious grounds, but also because it can damage the religious credibility of Muslims engaging in important debates in the interface of science and religion. Put syllogistically, this argument can be presented as follows:

- P1: Criticizing design arguments is equivalent to criticizing the Qurʾān
 P2: ID is a design argument

C: Therefore, criticizing ID is equivalent to criticizing the Qur'ān

This article will test the veracity of this argument by challenging P1. We will do this by first reviewing how a dominant Sunnī exegetical tradition of the Qur'ān has interpreted the design narrative discussed in the Qur'ān, and then develop the logical structure of the Qur'ānic design (hereon referred to as QD) argument. We will then examine the logical structure of the ID argument and demonstrate that it is different from the QD argument. We conclude that P1 contains a false generalization, and therefore critiquing ID does not undermine the design discourse of the Qur'ān.

To be clearer with our focus, there are four caveats that need to be highlighted. First, we hope to show that critiquing the ID argument does not entail that God is not omniscient or that He is not a designer. On the contrary, QD affirms that God is a supremely knowledgeable designer (*al-ḥakīm*) and He is responsible for the visible design and numerous complexities in creation. However, what is being negated in this article is the very specific construction and presentation of the ID argument, which presents itself as a rival explanation to evolution that relies on gaps in nature to argue for God's existence. We want to highlight this distinction as some might not have differentiated between the affirmation of God being a supremely knowledgeable designer and the ID argument as a more specific proposition in the evolution debate. Second, this article will not be evaluating the philosophical strengths of either the ID or the QD arguments. Rather, our objective is to do a comparative analysis of the two to determine their similarities and differences. Third, we acknowledge that there are other strands of Islamic thought that may differ with our representation of the QD argument. We have intently chosen to look at design arguments discussed in exegeses grounded in the Sunnī *kalām* tradition for a sharper focus accordingly; the interpretations and representations of design arguments as understood by other Islamic intellectual currents are beyond the focus of this article, and will be left to others to look into.⁵ Fourth, we may be criticized for sidestepping the discussion given that the main scriptural issue Muslims have with evolution is the creation account of Adam and Eve, which are understood to be created miraculously by most Muslims (Guessoum 2016; Malik 2021). The broader discussion of reconciling Islam and human evolution, and miracles are beyond the scope of this article. Our focus is squarely on how design and complexity play a role in the ID and QD arguments. However, we will briefly address how the discussion of Adam and Eve's miraculous creations could fit in within our focus at a later stage in this article.

EXEGETICAL LITERATURE

Among the hundreds of different Qur'ānic exegeses that Muslim scholars have written over the ages, the exegesis of 'Abd Allāh ibn 'Umar al-Bayḍāwī (d. 1319), *Anwār al-Tanzīl wa-Asrār al-Ta'wīl* (*The Lights of Revelation and the Secrets of Interpretation*; hereon referred to as *Lights*), possesses unique prominence. It became the standard exegesis that Muslim scholars used to teach the science of Qur'ānic exegesis in Muslim learning centers all over the world (Saleh 2022, 55). For centuries, it has been, and remains to this day, a required course of study in the seminary curricula of prominent institutions such as al-Azhar as well as seminaries in the Indian Subcontinent (Haddad 2016, 63; Al-Azhar 2016; Saleh 2021, 88, 67; and Sūfī 1941, 23, 70, 74, 124, 132). It was also the first Qur'ānic exegesis to be published in Istanbul (Turkey), Cairo (Egypt), and Lucknow (India), and the only exegesis to be published for decades with the advent of the printing presses, which reflects its dominance among scholars of Qur'ānic exegesis at that time (Haddad 2016; Saleh 2021, 91, 63). Its importance is also evidenced by the many dozens of scholarly glosses that were written on it by the Muslim scholars who taught it all over the Islamic world (Ibn 'Āshūr 2008, 107), to the extent that “glosses of the *Anwār* [*Lights*] became the dominant form of *tafsīr* writing, and soon they came to define the genre of *tafsīr*” (Saleh 2021, 88). In addition to these scholarly glosses, many prominent exegeses are either epitomes of *Lights*, for example, the acclaimed *Madārik al-Tanzīl* (*Understandings of Revelation*) of the influential theologian and exegete, Abū-al-Barakāt 'Abd Allāh al-Nasafī (d. 1310); or they are refinements, for example, the *Irshād al-'Aql al-Salīm* (*Guidance of the Sound Mind*) of Abū al-Su'ūd (d. 1574), the celebrated scholar of the Ottoman Empire (Haddad 2016, 64). Given all these points, it is no exaggeration to say that *Lights* became the “prism through which Islamic civilization understood the Qur'ān” (Saleh 2021, 71).

Because of the dominance of *Lights* in the exegetical tradition of Islamic civilization, we will primarily ground our study of QD through this particular exegesis, but our arguments will be substantiated with other exegeses. We will also maintain our focus on the 164th verse of the second chapter in the Qur'ān (hereon referred to as 2:164). This is the most important verse in our representative sample because exegetes customarily explain recurring Qur'ānic themes in greatest detail when they first appear in the Qur'ān, and this verse is the first explicit appearance of the theme of the design and complexity of the natural world being evidence for the existence of God. The verse reads as follows:

In the creation of the heavens and earth; in the alternation of night and day; in the ships that sail the seas with goods for people; in the water which God sends down from the sky to give life to the earth when it has been barren, scattering all kinds of creatures over it; in the changing of the winds and

clouds that run their appointed courses between the sky and earth: there are signs in all these for those who use their minds. (Qur'ān 2:164)

Al-Bayḍāwī comments with the following in *Lights* (Kāzaru'nī and Al-Bayḍāwī n.d., 1:204–206):

These verses signify God's existence and oneness in a variety of ways whose detailed explanation would grow too lengthy. In brief, these are all contingent things that exist in particular configurations out of many different ways ... because it is possible, for example:⁶

- (a) for some or all of the heavens to be stationary like the earth or
- (b) for them to move in the opposite direction or
- (c) in such a way that the circumference that surrounds the axis of rotation would rotate instead through the two poles of the axis of rotation or
- (d) not in a circular motion at all or
- (e) for them to rotate in the way that they do.

Since they are [rotating] in this particular way, they must have a powerful and wise existentiator who brings them into existence in accordance with His wisdom and ... will. [This must happen such that] it impossible for Him to be opposed by anyone, for if another god existed alongside Him ... then ... [detailed exposition of argument omitted] ... as indicated by His Most High's saying, "If there had been in the heavens or earth any gods but Him, both heavens and earth would be in ruins."⁷

Lights was written in the context of the scholastic tradition (*kalām*), which was briefly discussed earlier when discussing Malik's views on evolution. This approach involves the elaboration of rational arguments predicated on the Qur'ān and was a prerequisite for the study of Qur'ānic exegesis (Karamali 2017, 17–21). In other words, it has a focus on constructive and natural theology. This method is clearly evident in al-Bayḍāwī's exegesis of 2:164. As an accomplished scholar of *kalām* himself, al-Bayḍāwī employs several key terms of the subject, such as:

- (1) Contingency (*imkān*)
- (2) Selection of a contingency (*takhsīs*)
- (3) Power (*qudra*) and will (*irāda*)
- (4) Impossibility of two causes causing the same effect (*istiḥālāt ijtīmā' mu'aththirayn 'ala athar wāḥid*)
- (5) Impossibility of the realization of a contingency without cause (*istiḥālāt al-tarjīḥ bilā murajjih*)
- (6) Mutual prevention of godhood in polytheism (*burhān al-tamānu'*)

It is also worth noting that reference works of *kalām* often cite this verse when they present their arguments for the existence of God (Al-Bājūrī

2002, 86). After marshaling all of these terms of *kalām*, al-Bayḍāwī concludes his exegesis of 2:164 with the remark that this verse is “evidence for the nobility of the science of *kalām* and an exhortation to study and read it” (Kāzaru nī and Al-Bayḍāwī n.d., 1:206). *Lights* must therefore be understood in light of the same arguments made in the reference works of *kalām*. When we consult *Lights*, its glosses, and the reference works of *kalām*, QD emerges as the following three-step arguments, which we have labeled as A1, A2, and A3. To be clear, these arguments are articulated by al-Bayḍāwī in the *Lights*, but we have reformulated them as three, interdependent, syllogistic arguments.

A1: Argument for the existence of a necessary being.

QD begins with the argument from contingency. This is evident from the opening comment of al-Bayḍāwī on 2:164 in which he describes all of the things as being contingent and reasons from their contingency to the existence of an existentiator. He has already expressed this argument in an earlier part of his exegesis where he comments that “contingent things need a sustainer for their continued existence just as they need a creator for their initial existence” (Kāzaru nī and Al-Bayḍāwī n.d., 1:27).⁸ This well-known argument in the *kalām* tradition can be formalized as follows.

- P1_A: The natural phenomena that are described in 2:164 all exist contingently.
- P2_A: Everything that exists contingently needs a necessary being to make it exist.
- C_A: Therefore, the natural phenomena that are described in the Qur’ān need a necessary being to make them exist.

Note that the argument from contingency does not require the universe to be designed. The mere contingency of the universe is evidence for the existence of a necessary being. This fact is crucial to the argument of this article.

A2: Argument for the volitional agency of the necessary being.

QD argument builds on the argument from contingency to show that the necessary being is a volitional agent (*fā’il mukhtār*) who is characterized by the three attributes of knowledge, will, and power.⁹ This is when design enters the argument and can be formalized as follows:

- P1_B: The necessary being on whom the contingent universe depends is either a volitional agent or a volitionless cause (*‘illa*).
- P2_B: The variety¹⁰ and design in the universe are evidence that the necessary being on whom the universe depends is not a volitionless cause.¹¹

C_B: Therefore, the necessary being on whom the contingent universe depends is a volitional agent.

The variety in the universe is evidence for the necessary being's volitional agency because it is impossible for a volitionless cause to produce a variety of different effects. Al-Bayḍāwī makes this argument in the excerpt cited above when he infers from the variety of different possibilities in which the universe could have existed that the existentiator who made them must be powerful.

The design in the universe is evidence for the necessary being's volitional agency because a volitionless cause is also knowledgeless, and there can be no design without any knowledge. Al-Bayḍāwī makes this argument in the excerpt cited above when he infers from the design of the rotations of the heavens that the existentiator who made them must be wise.

The design and complexity of the universe therefore does not prove the existence of the necessary being. Rather, it is evidence for the knowledge and wisdom of the necessary being whose existence has already been inferred from the mere contingency of the universe.¹²

A3: Argument for the oneness of the volitional agent on whom the universe depends.

Finally, QD builds on A1 and A2 to show that the volitional agent on whom the universe depends must be one. This is an established argument in works of *kalām* called the argument by mutual prevention (*burhān al-tamānu*). This argument is based on the following verse of the Qur'ān, which al-Bayḍāwī also cites in the quotation above:

If there had been in the heavens or earth any gods but Him, both heavens and earth would be in ruins. (Qur'ān, 21:22)

This argument has two different formulations. The first formulation does not invoke design. This is the one that al-Bayḍāwī prefers.¹³ The second formulation does invoke design. Although al-Bayḍāwī does not mention this second formulation in *Lights*, other scholars reference it in their glosses on al-Bayḍāwī's exegesis and it features prominently in the works of *kalām* as a viable formulation (Qu' nawī n.d., 5:212; Taftāzānī et. al. 2012, 222–23). It is also adopted as the preferred formulation of the argument by prominent exegetes such as Maḥmūd al-Zamakhsharī (d. 1143) (Al-Tībī 2013, 10:322), whose exegesis was predominantly known in the Islamic world prior to *Lights* (Saleh 2021, 72–74); and Jalāl ad-Dīn al-Suyūṭī (d. 1505), whose commentary was frequently used in the Muslim learning centers as preparation for *Lights* (Ṣāwī n.d., 3:69–70). Since this article focuses on design arguments, it will restrict itself to this second exegetically and theologically popular formulation, which can be formalized as follows:

Table 3. Summary of scholars and exeges that have discussed QD (A1, A2, and A3) in 2:164 throughout the ages

Scholar	Date of death	Name of exegesis	References
Maḥmūd al-Zamakhsharī	1143	<i>Al-Kashshāf (The Unveiler)</i>	Al-Tibī (2013, 3:181)
Fakhr al-Dīn al-Rāzī	1210	<i>Mafātīḥ al-Ghayb (Keys to the Unseen)</i>	Al-Rāzī (1981, 4:199)
Muḥammad ibn Aḥmad al-Qurṭubī	1273	<i>Al-Jāmi' li-Aḥkām al-Qur'ān (The Compendium of Qur'ānic Rulings)</i>	Al-Qurṭubī (2006, 2:505)
Abū al-Su'ūd	1574	<i>Irshād al-'Aql al-Salīm (Guidance of the Sound Mind)</i>	Abū al-Su'ūd (2009, 1:292–94)
'Abdul Ḥakīm Siyālkoṭī	1657	<i>Ḥāshiya 'Abdul Ḥakīm Siyālkoṭī 'ala Tafṣīr Baydāwī (Abdul Ḥakīm Siyālkoṭī's Gloss of Baydāwī's Exegesis)</i>	Siyālkoṭī (n.d., 517–19)
Mahmūd al-Alūsī	1854	<i>Rūḥ al-Ma'ānī (The Spirit of Meanings)</i>	Al-Alūsī (n.d., 2:33)
Ashraf 'Ali Thānvī	1943	<i>Bayān al-Qur'ān (Explanation of the Qur'ān)</i>	Thānvī (2007, 51)
Ibn 'Ashūr	1970	<i>Al-Tahrīr wa-al-Tanwīr (The Refinement and Illumination)</i>	Ibn 'Ashūr (1984, 2:88)

- P1_c: We know from experience that if a country is ruled by multiple rulers, it will be in disorder.
- P2_c: Similarly, if the universe were ruled by multiple gods, it would have been in disorder.
- P3_c: But the universe is not in disorder. Rather, it is designed.
- C_c: Therefore, the universe is not ruled by multiple gods.

A3 argues for the existence of one God because multiple rulers cannot create order and consistency. Using the analogy of kings and rulers, just as one empire or country cannot have more one ruler, as it will lead to disarray, so too the creator of the ordered and the structured universe has to be one.

The conjunction of A1, A2, and A3 represents the QD argument. This is how design discourse in the Qur'ān was understood by the vast majority of Muslim learning centers and scholars, and are echoed explicitly by seminal exegetes throughout Islamic history as summarized in Table 3.

As stated earlier, exegetes unpack these arguments in greatest detail at the first mention of design and complexity in 2:164. There are several other verses in the Qurʾān that discuss the creation of the ordered heavens and earth, the regular rising and setting of the sun, the regular phases of the moon, the regular patterns and movements of the stars, the purposeful changing of winds that leads to rain and facilitates sea voyages, the relation between rainfall and the growth of vegetation and between underground reservoirs of water, the adaptations in the various kinds of animals (particularly domesticated farm animals and riding animals), the regular biological cycles of sleep and wakefulness, and the reproductively purposeful variations between males and females. All of these phenomena are designed, all of them are complex, and all of them are cited as evidence for the existence of God.

Exegetical remarks on these later verses are often brief statements that the verses are evidence for God's power, wisdom, or oneness. When understood in light of the more detailed exegeses of 2:164, these brief exegetical remarks can be expanded as follows:

- (a) God's power: The design and complexity of the universe is evidence that the necessary being, whose existence is inferred from the mere contingency of the universe, is a volitional agent who created the universe with His power.
- (b) God's wisdom¹⁴: The design and complexity of the universe is evidence that the necessary being, whose existence is inferred from the mere contingency of the universe, is a volitional agent who created the universe with His knowledge.
- (c) God's oneness: The design and complexity of the universe is evidence that the necessary being, whose existence is inferred from the mere contingency of the universe, is a volitional agent who is unrivalled by any other god.

As a confirmation exercise, we referenced 10 different exegetes for the five design verses cited in the "Introduction," and found that these exegeses either explicitly or implicitly cite A1, A2, or A3 by saying that these verses are evidence for God's power, wisdom, or oneness. This is summarized in Table 4.

THE QD ARGUMENT

The Qurʾān clearly cites design as a feature of the created world and uses that to argue for the existence of a supernatural being that is God. But it does not require that the design in the created world be unexplainable by natural causes. Instead, it is open both to the possibility that design and complexity in the created world has natural causal explanations

Table 4. Master reference of commentaries of other verses supporting A1, A2, and A3

Verse	Explicit mention	Implicit mention
3:190	Al-Qunawī (n.d., 3:161)	Şāwī (n.d., 1:184–85) Al-Biqā'ī (1995, 2:196) Al-Nasafī (1998, 1:320) Al-Qurṭubī (2006, 5:465) Abū al-Su'ūd (2009, 1:622) Al-Tibī (2013, 4:378)
6:77	Şāwī (n.d., 2:25)	Al-Qunawī (n.d., 3:81) Al-Qurṭubī (2006, 8:439) Al-Zamaksharī (Al-Tibī 2013, 6:143) Abū al-Sa'ūd (2009, 2:237)
30:22-4	Al-Rāzī (1981, 25:112–14) Al-Biqā'ī (1995, 5:614) Al-Qurṭubī (2006, 12:13–15)	Kāzarūnī and Al-Bayḍawī (n.d., 4:145) Şāwī (n.d., 3:352) Abū al-Su'ūd (2009, 4:258)
31:10	Al-Rāzī (1981, 25:144)	Şāwī (n.d., 3:238) Al-Biqā'ī (1995, 6:9) Abū al-Su'ūd (2009, 4:374–75) Al-Tibī (2013, 12:286)
88:17-20	Al-Rāzī (1981, 31:88) Al-Biqā'ī (1995, 8:411) Al-Qurṭubī (2006, 22:253)	Al-Qunawī (n.d., 7-2:106) Al-Nasafī (1998, 3:635) Abū al-Su'ūd (2009, 5:525) Al-Tibī (2013, 16:413)

Note: This is not an exhaustive list.

(the Qur'ān appears to suggest that this is predominant in the created world, which is why exegetes frequently explain design and complexity using the science of their time), and the possibility that certain instances of design and complexity do not have any natural causal explanations (the Qur'ān appears to say that this happens miraculously in exceptional cases). In other words, the QD argument neither requires the affirmation nor the negation of naturalistic explanations for designed or complex entities in creation. Consequently, the existence of naturalistic explanations of complex phenomena are theologically unproblematic within the *kalāmīc* framework.

It is then of no surprise to see the acknowledgment of natural causes as part of the QD argument based on inferences from the Qur'ān. For example, 2:164 explicitly cites water as a natural cause for plant growth and implicitly refers to the water-cycle where the water from the seas turns into clouds that are then blown by the winds over dry land so that their precipitation can bring about plant growth (Kāzarūnī and Al-Bayḍawī n.d., 1:205). Al-Bayḍawī himself unhesitatingly refers to the rotation of the celestial spheres as pre-modern natural explanations for the movements of

celestial bodies. Al-Rāzī (1981, 2:154) also emphasizes this idea by relating an episode of a scholar who believed that studying the natural world was akin to doing an exegetical study:

It has been narrated that ‘Umar ibn Ḥusām was studying [Ptolemy’s] Almagest with ‘Umar al-Abharī, and a scholar of sacred law asked him one day, “What are you studying?” to which he responded, I am doing an exegesis of a verse of the Qur’ān, namely: “Do they not see the sky above them—how We have built and adorned it, with no rifts in it.”¹⁵ I am therefore doing an exegesis of how it was constructed.

Al-Rāzī (1981, 2:154) uses this to argue that the greater one’s knowledge of natural causes, the stronger one’s proof for the existence of a majestic and tremendous God:

Without any doubt, al-Abharī spoke the truth, for whoever delves deeper into the seas of the [knowledge of] the things that God, The Most High, has created will have greater knowledge of the majesty and tremendousness of God, The Most High.

The reason why natural causes do not compete with the QD argument is because it first argues from the contingency of the universe for the existence of a necessary, supernatural being and only then from the design of the universe for the volitional agency and oneness of that necessary being. Since natural causes themselves are contingent, they are evidence for the existence of the necessary being. So, the more contingent natural causes that we can identify in nature, the stronger the argument for God’s existence.¹⁶ That is why al-Rāzī says the greater one’s knowledge of natural causes, the greater one’s knowledge of God.¹⁷

At this point, we would like to address the concern we raised in the “Introduction” about Adam and Eve’s miraculous creations, which may be an (or *the*) issue for some Muslims when it comes to evolution. Two points need to be highlighted. First, since natural causes are contingent, if someone were to hold that the design and complexity of some creatures, such as Adam and Eve, came into existence without any natural causes, this is perfectly compatible with the framework of *kalām*; God, the necessary being, can easily create law-confirming contingencies as well irregular ones. Second, isolated miraculous creations revealed in the Qur’ān do not necessarily entail that all other creatures must come into existence without any natural causes too. So even if Adam and Eve were created miraculously, the rest of the biological life forms could easily be accommodated for in an evolutionary framework (Jalajel 2009; Malik 2021). Of course, more can be said here, but we do not want to digress from the focus of this article.

In short, barring miracles, the Qur’ān neither negates nor affirms naturalistic explanations of designed and complex things in creation. So, if naturalistic explanations were discovered for nonmiraculous events, it would

not contradict the Qur'ān. On the contrary, the exegetes reviewed here would happily instrumentalize them for bolstering the QD argument.

THE ID ARGUMENT

Recall, the ID argument is specifically an argument against Neo-Darwinism, particularly the mechanics of its theory of natural causation. Neo-Darwinism rests on natural selection and random mutation as its primary mechanics of natural causation. Proponents of the ID movement believe these are insufficient for explaining the complex biological markers found in the biological kingdom. For a sharper comparison, let us take Michael Behe's formulation of the ID argument since both Iqbal and Yahya quote him.

Behe argues for something called *irreducible complexity*. This is when there are so many intricate pieces in bio-machinery such that it would be impossible for the gradual processes of natural selection and random mutation to develop such complex systems. He uses the example of a mousetrap to illustrate an irreducibly complex system. It has various components—a spring, a hammer, a holding bar, a platform—which need to come together in specific arrangements for it to have a collective function as a mousetrap. If even one piece is missing, the functionality of a mouse trap is lost (Behe 2019, 230–31):

A mousetrap consists of a number of pieces. It has a large wooden base to which everything else is attached. There is a tightly coiled spring with extended ends that press against the base and also against another metal piece called the hammer. The hammer has to be stabilized by a piece called the holding bar to keep it in position. And the far end of the holding bar itself has to be inserted into a piece called the catch. Besides these major pieces, there are assorted staples that attach them to the base. How could something like a mousetrap evolve gradually by something like a Darwinian mechanism, by 'numerous, successive, slight [and, Darwin neglected to add here, random] modifications'? ... The general barrier [irreducible complexity] presents to Darwin's gradual mechanism is that if a system requires a number of components for its function, then natural selection cannot favour the function until all the needed pieces have already come together. In other words, the system first has to exist before selection can affect it ... The predicament is easy to see.

After explaining the idea of irreducibly complex system *via* the mousetrap, Behe gives examples from the molecular world, most famously, the bacterial flagellum (Behe 2019, 286):

The flagellum ... is quite literally an outboard motor that bacteria use to swim. It has a number of conceptually distinct parts—a motor, stator, drive shaft, bushing materials, and more—totaling dozens of different proteins. But of course that terse description comes nowhere near doing justice to the machine's complexity ... Each of the flagellum's proteins is itself intensely,

comprehensively complex. What's more, unlike outboard motors assembled by humans who know exactly how to arrange the parts, machinery in the cellular world has to automatically assemble itself. As I described in *The Edge of Evolution*, the system for assembling the flagellum is both elegant and exceedingly complex. So not only is the flagellum itself irreducible, but so is its assembly system. The assembly process and the flagellum together constitute irreducible complexity piled on irreducible complexity.

For him, the bacterial flagellum and other examples are irreducibly complex systems and therefore cannot be explained by Neo-Darwinian mechanics of natural causation (Behe 2006, 39):

An irreducibly complex system cannot be produced directly (that is, by continuously improving the initial function, which continues to work by the same mechanism) by slight, successive modifications of a precursor system, because any precursor to an irreducibly complex system that is missing a part is by definition nonfunctional. An irreducibly complex biological system, if there is such a thing, would be a powerful challenge to Darwinian evolution. Since natural selection can only choose systems that are already working, then if a biological system cannot be produced gradually it would have to arise as an integrated unit, in one fell swoop, for natural selection to have anything to act on.

It is at this juncture that Behe and other proponents of ID believe an intelligent designer is a better explanation than natural causal explanations. To be sure, Behe (2003, 276) and the others maintain the argument could be any kind of intelligent designer:

... while I argue for design, the question of the identity of the designer is left open. Possible candidates for the role of designer include: the God of Christianity; an angel—fallen or not; Plato's demiurge; some mystical new-age force; space aliens from Alpha Centauri; time travelers; or some utterly unknown intelligent being. Of course, some of these possibilities may seem more plausible than others based on information from fields other than science.

But it is clear from the first three examples that he cites (the God of Christianity, an angel, and Plato's demiurge) that his goal in criticizing the natural mechanics of Neo-Darwinism is to create space for a supernatural explanation for biological design. This is confirmed by the well-known fact that ID proponents generally recognize the designer as none other than God, and only keep an agnostic stance about the designer for public neutrality (Malik 2021, 221).

It is no surprise that this sounds alarm bells for most scientists; they are concerned that by replacing natural scientific explanations with supernatural explanations, ID proponents are undermining the whole scientific enterprise. As stated earlier, some evolutionary biologists believe that Neo-Darwinian explanations could be replaced or be coupled with other naturalistic mechanics that can explain these complex features

without resorting to a supernatural designer. Subsequently, ID is seen as either bad science or pseudoscience (Nagasawa 2011, 100; Laats and Siegel 2016, 71–72).

COMPARING THE ID AND QD ARGUMENTS

We have now shown that the Qur'ānic discourse of design is based on the QD argument that argues for the existence of a supernatural designer without competing with natural causal explanations of design. On the other hand, the ID argument as employed by Muslim and Christians proponents argue for the existence of a supernatural designer by setting up a competition between natural and supernatural explanations of design. If there is something that cannot be currently explained by evolutionary biology due to overwhelming complexity, the ID crowd swiftly jump to a designer. This is what irks most evolutionary biologists with ID; it relies on tentative gaps in our knowledge of bio-complex systems from which it appeals to a designer.

The exegetes we reviewed were not arguing for gaps in nature to look for God's signs in creation. The design discourses we found in the exegetical corpus are predicated on the contingency argument. This argument establishes God as a necessary being which has an absolutely free will through which it selects and manifests a particular set of contingencies. In the case of our current creation, the Qur'ān seems to clearly indicate that it has several indications of complexity and design. However, none of these are argued as either the sole or localized arenas for proving either God's existence or His activities. This is because the Qur'ān has a running motif that God as a necessary being is always in control over all things in creation:

Control of the heavens and earth and everything in them belongs to God:
He has power over all things. Qur'ān (5:120).

Accordingly, there is no bifurcation between a supernatural God and a naturalistic explanation of complex and designed features of the world. The created world undoubtedly contains arrangements of complexity, but the Qur'ān does not negate the possibility of naturalistic explanations of complex features like movements of celestial bodies, consistent patterns of night and day, and weather patterns among others. In fact, all of these phenomena have complex naturalistic explanations today! Subsequently, the idea of choosing between a supernatural God or a naturalistic explanation as competing interpretations did not exist in Islamic intellectual history precisely because exegetes understood a two-tier causal account of creation. The *primary cause* of everything is always God, which is what makes him a necessary being and an ultimate explanation of all contingencies, complex or otherwise. Scientific endeavors are in the business of identifying naturalistic patterns in *secondary causation*.¹⁸ Given these points, there was

Table 5. Differences between ID and QD arguments

Argument	ID	QD
There is design and complexity in the universe	Yes	Yes
A supernatural designer can be <i>inferred</i> from the design and complexity in the universe ¹⁹	Yes	Yes
Natural causes of some designed and complex phenomena need to be negated for a supernatural designer	Yes	No

never a need to posit a bifurcation between natural and supernatural explanations (Jalajel 2009, 157; Malik 2021, 213–36). This is unlike the ID argument which forces a wedge between the two, making it a God of the Gaps argument.

Based on this distinction between the two arguments, we can now see why Muslim thinkers who believe that criticizing ID is equivalent to criticizing the Qurʾān are mistaken. We presented the argument in syllogistic form at the beginning of this article as follows:

P1: Criticizing design arguments is equivalent to criticizing the Qurʾān

P2: ID is a design argument

C: Therefore, criticizing ID is equivalent to criticizing the Qurʾān

In this argument, P1 commits a false generalization. To make this apparent, we have summarized the commonalities and the differences between the ID and QD arguments in Table 5.

Both arguments acknowledge that there is design and complexity in the universe that can be explained by a supernatural designer. Therefore, criticizing ID is equivalent to criticizing the design discourse in the Qurʾān if one argues against the existence of design and complexity in the universe or that the design and complexity in the universe is not evidence for a supernatural designer. This point is also shared with design arguments in general. But if one criticizes ID by arguing that design is unexplainable by natural causes, which is a God of the Gaps narrative in light of the contingency argument, then that is not equivalent to criticizing the design discourse of the Qurʾān, as the Qurʾān does not negate the possibility of there being natural causes for complex phenomena. It is this last point that raises a major divide between the ID and QD arguments.

CONCLUSION

In this article, we compared and contrasted the design discourse found in the Qurʾān with the ID argument. The ID argument fundamentally forces us to choose between natural or scientific explanations against a

designer, where the latter is understood as God by some if not all proponents of ID. The Qur'ān does not seem to support this kind of design argument. The exegetes we reviewed here clearly understood a two-tier causal account of creation. God being a necessary being is understood as the primary cause of all contingencies. The world undoubtedly contains designed and complex elements, which are all contingent and for which God is responsible for. However, God being an explanation for designed and complex entities mentioned in the Qur'ān is not negated by scientific explanations. The Qur'ān does not create a bifurcation between natural or scientific phenomena and God because of their two-tier causal account of God's relationship to the created world. Linking this to the discussion of evolution and barring the discussion of miraculous creations like Adam's and Eve's, the Qur'ān does not deny the possibility of naturalistic explanations of the *origins of life* nor the *origins of species*. If evolutionary biologists have scientific explanations for both, it would not undermine the Qur'ān's integrity.

In short, we have argued that there is a fundamental misalignment between the ID argument and the design discourse mentioned in the Qur'ān. Unlike the ID argument, the QD argument does not seek gaps in nature to prove God's existence given its emphasis on contingency. Seen this way, critiquing the ID argument does not undermine the design discourse in the Qur'ān.

NOTES

1. To be clear, evolution is just one many points of contention for ID proponents. Taken with its broader context, ID better represents a broader cultural movement against materialism within which evolution is a symptom, not a cause (Forrest and Gross 2007; Kitcher 2007, Foster et al. 2008).

2. We specifically mean creationism in the narrower sense of believing that common ancestry is false and God created all species instantaneously.

3. All translations of the Qur'ān are taken from Muhammad Abdel-Haleem's translation.

4. This is referring to an event where Prophet Abraham cycles through assigning divinity to various celestial objects before arriving to the conclusion that these cannot be God. For the full context, see Qur'ān (6:75–80).

5. For one example of design discourse looked at from another Islamic perspective, see Turner (2021), who analyzes Ibn Taymiyya's conception of design arguments according to the Atharī paradigm.

6. Here, Baydāwī understands the heavens in light of the scientific knowledge of his time, which explained the movements of celestial bodies using the model of a stationary earth surrounded by many rotating celestial spheres. The fact that we now know this to be scientifically inaccurate today is not relevant to the argument of this article.

7. This is a verse in the Qur'ān (21:22).

8. This commentary is for the following verse: "Praise belongs to God, Lord of the Worlds" (Qur'ān 1:2).

9. Whether the necessary being on whom the universe depends is a volitional agent or a nonvolitional cause is the defining philosophical debate between scholars of *kalām* and Muslim Aristotelian philosophers (see Hassan 2020).

10. Someone could contend that Baydāwī argues from the potential variety in the motions of the celestial spheres, not from their actual variety, because the celestial spheres all move in the

same direction. This contention misses the point entirely because the argument from potential variety makes an even stronger link between variety and volitional agency than actual variety. In other words, variety entails volitional agency so strongly that it does not actually have to be there; the mere possibility of its existence is sufficient to establish volitional agency. This contention also fails to note that the rest of the verse that Bayḍāwī is commenting on explicitly mentions actual variety (cf. “all kinds of creatures” and “the changing of the winds”), and if his commentary is read in this greater context, it is clear that this actual variety is evidence for volitional agency. Fakhr al-Dīn al-Rāzī brings this out in his longer commentary on all of the things that are mentioned in this verse as signs for the existence of God. Bayḍāwī, who draws on Rāzī heavily, confined himself to talking about the first thing in the verse, namely, the motions of the celestial objects.

11. From a philosophical perspective, the contingency of the universe alone is evidence for the necessary being’s volitional agency. However, variety and design are stronger arguments because they make volitional agency even clearer, highlighting God’s knowledge and power in the way that the knowledge and power of a human being would be highlighted when He demonstrates His skill by making a wide variety of precisely designed objects.

12. Someone could contend that Bayḍāwī’s argument does not distinguish between contingency as a need for cause and particularization as a need for volitional agency. However, this is mistaken because the intellectual opponents who Bayḍāwī is speaking to are the Muslim Aristotelian philosophers, who affirmed contingency as a need for cause but denied that the cause was a volitional agent. That is why Bayḍāwī’s conclusion is the existence of an existentiator (or “cause”) who is powerful and wise: as explained by Kāzarūnī in his scholarly gloss on Bayḍāwī at this point, the attributes of power and wisdom are mentioned specifically to affirm the volitional agency of the necessary being in opposition to the Muslim Aristotelian philosophers based on the fact that the movements of the celestial spheres are not essential to them and therefore need a volitional agent to make them the way that they are. (Kāzarūnī and Al-Bayḍāwī n.d., 1:205)

13. The first formulation argues that the hypothetical existence of multiple gods sets up a conflict between their powers that makes it impossible for both of them to retain their omnipotence. The conflict leads to one of three possibilities: (1) both retain their omnipotence, but this is impossible because it leads to the contradiction of a contingent thing existing and not existing at the same time; or (2) none of them retains their omnipotence, in which case none of them is god and it is impossible for the universe to exist; or (3) one of them retains his omnipotence to the exclusion of the other, in which case we return to the situation of there being only one God (Al-Bājūrī 2002, 115).

14. God’s wisdom here is understood to reflect His ability to realize a precisely designed creation. The etymologically related word *ihkām* means skill and mastery, illustrating that this is a root meaning that underlies the meaning of wisdom in the ancient Arabic language.

15. This is a verse in the Qur’ān (50:6).

16. This is a quantitative argument, where the number of contingent items is itself contingent. This is not to say that several contingencies are necessary for the contingency argument to work; the contingency argument would be complete even if there was nothing but a single contingent entity. The point here is simply that numerous contingencies quantitatively strengthen the contingency argument over lesser contingencies.

17. Ibn ‘Ashūr (1984, 2:78) cites al-Rāzī words verbatim in his exegesis before going on to give modern scientific explanations for all of the phenomena described in this verse.

18. This is alluded to in the Qur’ān (8:17). Furthermore, it should be made clear that the division between primary and secondary causation must be understood within the divine action model of occasionalism, which is how it is viewed in the *kalāmīc* framework. In this paradigm, secondary causes are existentiated by and completely dependent on the primary cause, God, the necessary being. Also, in case we are misunderstood, we maintain that not all secondary causes are naturalistic causes, but all naturalistic causes must be secondary causes. Much more can be said here, but the details are beyond the scope of this article.

19. It is important to note the differential strengths between *biological* and *cosmological* design. Meyer (2021, 260), for instance, makes it clear that *biological* design is a weaker basis for inferring God as the designer, as it is, on its own, compatible with an *intracosmic* designer: “I acknowledged that I personally thought that the designing intelligence responsible for life was God, but the evidence from biology alone could not definitively establish that ... Consequently, if intelligent design best explains the origin of biological information, then either a transcendent

or a preexisting immanent intelligence (one within the cosmos) could, at least in principle, explain that evidence of design. So the evidence of design in life, taken by itself, does not *necessarily* point to a transcendent intelligence (or God).” By contrast, the *cosmological* design is a stronger argument for God as the designer, either on its own or if used in conjunction with *biological* design (Meyer 2021, 260): “I do think explaining the full range of scientific evidence . . .—from astronomy and cosmology to physics *and* biology—points to a transcendent designer with the attributes—“the right skill set”—that theists ascribe to God.” For more on this, see Malik (2021, 212–36).

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