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ORIGINAL ARTICLE

Shared intentionality and divine persons: explorations in empirical psychology and ramified natural theology

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Abstract

This article explores the intersection of two developing fields of study: the psychological field of *shared intentionality* and the philosophy of religion field of *ramified natural theology*. In shared intentionality, agents share mental states and cooperate to achieve a common goal. Many psychologists in this field believe that of all the primates, only humans share intentionality – humans alone form a 'we'. Ramified natural theology is the project of presenting philosophical evidences for core doctrines of the Christian faith. In this article I investigate some applications of shared intentionality for Christian natural theology. In the Anselmian tradition I offer two deductive arguments that deploy shared intentionality to argue that there are multiple divine persons. I then suggest that analogical arguments – often overlooked by philosophers of religion – provide a better fit for psychological findings, such as shared intentionality. After sketching some fundamental features of analogical arguments, I advance two arguments by analogy for the conclusion that God, like humans, shares intentionality. These arguments show that the psychology of shared intentionality, and empirical psychology more generally, is a promising source for theological reflection.

Keywords: science-engaged theology; empirical psychology; shared intentionality; divine persons; ramified natural theology

Overview

This article explores the intersection of two developing fields of study, the psychological field of *shared intentionality* and the philosophy of religion field of *ramified natural theology*. Shared intentionality is the phenomenon in which agents have in common specific goals, knowledge, and other mental states, and cooperate to achieve those shared goals. While some non-human primates engage in limited cooperation, many psychologists agree that only humans share intentionality – humans alone form a 'we'. Ramified natural theology is the project of presenting philosophical evidences for core doctrines of the Christian faith.

In this article I bring the two recent research programmes into conversation. Taking theological engagement with the sciences seriously, this article has two main aims. First, I apply findings from empirical psychology in ramified natural theology arguments. While a few practitioners of ramified natural theology are concerned that their work be compatible with the sciences, no one to date includes the sciences *as part* of their work.

The arguments I propose are not meant as full defences, but rather as initial surveys of the plausibility and fruitfulness for deploying findings from the psychological sciences, such as shared intentionality, into the project of ramified natural theology.

As a second aim, I take soundings for where an important piece of scientific methodology finds organic fit in natural theology. John Perry and Joanna Leidenhag have recently commented that, 'Oftentimes a method will open-up new roads of inquiry' (Perry and Leidenhag (2021), 249). I investigate this thesis by deploying analogical argumentation – an important tool in many scientific endeavours – for reasoning about divine persons.

A study like this one, which stands at the intersection of two cutting-edge fields, is itself quite novel. Therefore, I stress that the aims of this article are primarily exploratory. This article takes first steps towards a judicious and effective 'employ[ment of] scientific theories and findings', such as shared intentionality, 'in constructive and concrete theological debates', such as ramified natural theology (Perry and Leidenhag (2021), 249).

Outline

The article takes the following steps. In the first section I sketch the project of ramified natural theology. As science-engaged theologians know (and also theology-engaged-scientists), one of the greatest hurdles in productive interdisciplinary discussion is the ability to speak the language of other disciplines. Since the fields discussed in this article are highly specialized, the tendency for isolation is pressing. Perry and Leidenhag counsel that science-engaged theologians 'remain always ready to explain the larger picture that lies behind their concepts, as well as to listen to scientists as they explain the foreign world that lies behind seemingly familiar language' (Perry and Leidenhag (2023), 46). Taking this advice to heart, in the next section I outline the core elements of shared intentionality, giving special care to understand what psychologists mean when they discuss this phenomenon.

In the following section I apply the findings of shared intentionality in a pair of deductive arguments for multiple divine persons. We find that Anselmian-type reasoning can utilize the notion of shared intentionality, but perfect-being theology faces several challenges. Even if these challenges can be overcome, deductive proofs are not the best place to deploy shared intentionality. I suggest that arguments by analogy are a much better fit for utilizing the findings of the psychological sciences. The subsequent section provides some necessary ground clearing. There I give a short introduction to the field of analogical reasoning, which does not seek necessary conclusions. Instead, an analogical argument demonstrates that its conclusion is probable and, importantly, that the conclusion is philosophically (and theologically, and psychologically) worthwhile, demonstrating that it merits serious investigation. In the penultimate section I offer two analogical arguments for divine shared intentionality. The final section concludes with brief reflections on how divine shared intentionality aids the philosophical defence of Christian theism, and is well-positioned for judicious integration with biblical, historical, and philosophical sources of trinitarian theology.

Ramified natural theology

Natural theology, traditionally conceived, is the project of reflecting on God's existence and nature through one's senses and reason. The faculties of physical sensation and reason are deployed with regard to data that is in principle accessible to any human. Those faculties are not deployed with regard to any purported instances of divine (or special) revelation.[1] This traditional form of natural theology typically results in formal arguments for a minimal (or 'bare') theism: the existence of God and God's attributes such

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as omnipotence, omniscience, and omnibenevolence.[2] Traditional natural theology is immediately recognizable in well-known examples like Aquinas' five ways, Paley's design argument, and William Lane Craig's version of the *Kalam* cosmological argument.

Some recent natural theologians have extended the scope of their reasoning beyond that typically sought by traditional natural theology. These thinkers develop natural theological arguments for conclusions that fall squarely within some dogmatic picture of God. Thus, Christian practitioners of this branch of natural theology argue for the truth of specifically Christian claims about God, such as Jesus' resurrection, Jesus' divinity, or God's triunity. Indeed, this project is a particularizing branch, or ramification, of the traditional project and so is commonly referred to as 'ramified natural theology' (hereafter RNT).[3]

The most notable contemporary proponent of Christian RNT is Richard Swinburne.[4] Several features relevant to the present discussion stand out in Swinburne and other recent proponents of Christian RNT.[5] First, many of the arguments developed by Christian ramified natural theologians are sourced from the Christian tradition, with varying levels of dependence.[6] For example, in advancing arguments for multiple divine persons, Stephen Davis (2006, 60–78) and William Lane Craig (Moreland and Craig (2003), 594–595) both draw from the twelfth-century thinker Richard of St Victor. Similarly, in developing a case for Jesus' resurrection, Gary Habermas and Michael Licona (2004, 48–63) draw from Church Fathers not only for early testimony, but also for some powerful lines of argumentation. Second, modern Christian proponents of RNT are often concerned that their arguments be compatible with the best findings of the modern sciences.[7] Even so, employment of the empirical sciences *in* RNT arguments is still largely unexplored.[8]

In sum, there is plenty of work to be done in incorporating the sciences into Christian natural theological arguments. To take steps towards this end, in the next section I will give an overview of key findings from the psychological sciences, namely, from the field of shared intentionality.

Shared intentionality

In the past few decades psychologists have developed a sophisticated account of *shared intentionality*, also referred to as *joint* and *we intentionality*. Research in shared intentionality is highly interdisciplinary, standing at the intersection especially of developmental and comparative psychology, but also utilizing insights from evolutionary, cognitive, neurological, and behavioural psychology.[9] Further, scientists in this field draw key theoretic principles and insights from philosophers, particularly Searle, Gilbert, and Tuomela.[10] Psychologists readily acknowledge their use of foundational concepts as developed by these and other philosophers. Even so, scientists working in shared intentionality adjust concepts to fit the empirical data, and have therefore developed particular terminological conventions.

Akin to George Bernard Shaw's quip about two nations divided by a common language, psychologists use much of the same terminology as philosophers, but often with different emphases or differing semantic scope altogether.[11] For this reason, as I outline the core of the view I will take special care to specify what psychologists mean when they discuss shared intentionality.

Leading psychologists in the field include Michael Tomasello and Malinda Carpenter. Shared intentionality, these psychologists argue, is what allows for specifically human cultural activities and separates humans from the other primates. Tomasello and Carpenter summarize a key point this way,

> The big Vygotskian idea is that what makes the human condition different is not more individual brainpower, but rather the ability of humans to learn through

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other persons and their artifacts, and to collaborate with others in collective activities. (Tomasello and Carpenter (2007), 121)

In the present article, 'shared intentionality' (or SI for short) refers to a social-psychological, collaborative activity in which participants share or have in common certain mental states. In sharing intentions, persons S^1 and S^2 play a delicate and complex social-cognition game. The scientific literature on this subject is increasingly vast.[12] Nevertheless, we may identify seven conditions that are essential to SI (as psychologists deploy the notion):

(i) S^1 and S^2 both have the same *intention*. In this context 'intention' refers to a mental representation of a possible state of affairs – what philosophers often call a 'mental model'.[13] An intention is a way the world could be as envisioned by S^1 and S^2. More specifically, it is a way that S^1 and S^2 mentally represent their environment as it could be.
(ii) S^1 and S^2 both *desire* for the world to be this way. They do not only see their environment as possibly being different, but they also want the change to happen.

Taken together, (i) and (ii) form a 'concrete goal or purpose by which human beings', and some other species, 'guide their behaviour' (Tomasello (1995), 103–130). As psychologists in the field conceive of it, SI is highly teleological since it couples the intention (the telos, end) and the will (volition, desire) to achieve that end. That is, S^1 and S^2 both share a mental model of their environment, and share a desire that that mental model be realized. In a word, S^1 and S^2 *share* a goal. Next,

(iii) S^1 and S^2 both *engage in some behaviour* to realize the shared goal. Each subject acts to achieve the state of affairs which each desires.[14]

So far we have a way the world could be modified (from i), the desire for the modification (ii), and the activity to make it so (iii). But a shared goal and simultaneous action are not yet sufficient for truly shared intentionality. For example, two children may both want to kick a ball into a net and attempt to do so within a few yards of each other. In this instance, they share the goal 'kick the ball into the net', and they are both trying to achieve that goal at the same time. Yet, without some further ingredients these children are merely engaging in solo-play, though simultaneously and in close proximity. They are not yet playing a game *together*. Four more elements are still required:

(iv) S^1 and S^2 both *monitor their environment* and adjust their behaviour to better achieve their goal. By attending to her action's effects on the environment, S^1 regulates her actions and adjusts her action plan.
(v) S^1 and S^2 both *monitor the other's attention* to the environment and ongoing activity of other agents. In this 'joint attention', S^1 attends to S^2 and what S^2 is doing and attending to. S^2 does the same with S^1. In this way there is an ongoing feedback circle between a participant, her environment, and the other participants (as they simultaneously attend to the environment and other participants).

Joint attention (element (v)) is an example of what cognitive and other psychologists call 'theory-of-mind', or 'mind reading'.[15] A subject engages in mind reading when she attributes mental states – such as goals, intentions, beliefs, desires, feelings – to other subjects, thereby allowing her to anticipate the other subject's behaviour.[16]

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With the addition of elements (iv) and (v) we can see the beginnings of a collective or social group. Elements (i)–(v) are demonstrated especially by higher primates, such as chimps, who pool their collective attention in group activities like hunting or play (Melis et al. (2006), 1297–1300). The remaining two elements, though, combine with the previous ones to finally yield shared intentionality. Indeed, as some comparative and developmental psychologists argue, it is the following two conditions that set humans apart from other primates:

(vi) S^1 and S^2 have *mutual knowledge*, which can be described in three parts. First, both attend to the same object in the environment, namely, that piece of the world relevant to their shared goal (this is largely a repetition of (i) and (iv)). Second, both *know* that the other is attending to the same object (an instance of mind reading from (v)). Third, both S^1 and S^2 *know that the other knows*.

An example of (vi) will prove useful. First, Aimee and Tony both envision that they win the football match (element (i)), and both attend to the field and to each other to achieve this shared goal (element (iv)). Second, Aimee knows that Tony is attending to the field and to the opposing team (the environment), to his actions, and to Aimee's actions. Third, Tony knows that Aimee knows about all this, and Aimee knows that Tony knows. In sum, Aimee and Tony share knowledge not only of their environment and actions, but also of each other's mental states, and so have mutual knowledge in a significant sense.

(vii) S^1 and S^2 have *mutual desire*, which can be described in two parts. First, S^1 desires that S^2 share her goal. Second, S^1 desires that S^2 pursues a common action plan. Both participants want the other to want the same outcome (viz., the environment to be modified as envisioned in the mental model). Further, both participants want the other to want to act with her in achieving that outcome.

Returning to the previous example, Aimee desires that Tony have two desires of his own: first, she wants Tony to desire the same goal as her; second, she wants Tony to desire to act with her in realizing the envisioned state of affairs. Stated tersely: in shared intentionality, participants want to achieve a goal *together*.

In sum, elements (i)–(vii) are each necessary and together sufficient for the social psychological phenomenon of shared intentionality. This is important because, according to comparative and evolutionary psychologists, while some primates engage in elements (i)–(v), only humans engage in all seven.[17] Elements (vi) and (vii) are crucial because they transform a collective of individuals working in tandem into a social whole – a 'we'. As Tomasello explains,

> Although nonhuman animals may engage with one another in complex social interaction in which they know the goals of one another and exploit this, they are not motivated to create shared goals to which they are jointly committed in the same way as humans. (Tomasello, Carpenter, et al. (2005), 682)

The point cannot be stressed enough. In much human social activity, the participants do not merely desire some goal, or merely work collectively to achieve that goal. Instead, humans alone are motivated to act together to achieve their goals, where each participant desires that others want to pursue the goal *with* her.[18] Thus, element (vii) is the social motivational core of shared intentionality. Using our example: part of Aimee's goal is to win the football game. But this goal is folded into a larger goal, namely, to win the game *with* Anthony, and to *want Anthony to want to win the game with her*. It is the

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human social motivation for mutual desire that, along with the other elements, yields shared intentionality.

These findings about SI already provide anthropological grist for the mills of science-engaged-theologians. Limiting our attention to implications for the present article, we find that SI is critical for understanding uniquely human social activity. Specifically, humans create and develop complex social behaviours and artefacts, such as language and culture (e.g. money, marriage, and government).[19] However, creation and evolution of culture is dependent on the social motivations and activities described in the seven elements above. That is, the drive and complete package of skills necessary for learning language and first engaging in cultural practices are distinctively human. While not all instances of language and cultural engagement directly employ shared intentionality, a human's ability to learn and initially use language and culture do require it. In short, shared intentionality is a necessary precondition for all instances of language and culture.

To conclude this section, humans alone form a 'we', which arises from the complex mental states composing shared intentionality. The 'we' thus formed allows for, and is a necessary condition of, the even more complex social-cognitive activities that mark us out as distinctively human.[20] With these insights into SI from the psychological sciences, we may develop some lines of ramified natural theology, beginning with a SI variation on a traditional Anselmian theme.

Shared intentionality and perfect being theology: a deductive approach

In the rest of this article I consider key applications of the previous discussion for ramified natural theology. To do so, I outline and comment on several lines of argument that deploy the notion of shared intentionality. My aim, however, is not to provide full defences of those arguments. Instead, I want to investigate how the branch of psychology under discussion may most profitably be utilized by philosophers of religion, and test several philosophical-theology methodologies to determine which may be utilized with greatest advantage.

We may first apply SI by deploying it within the task and methods of Anselmian perfect being theology. Modifying a common line of perfect being argumentation, we may reason this way:

A perfect being argument[21]

1. God is the greatest possible being.
2. The greatest possible being is one that has all perfections necessarily.
3. Shared intentionality is a perfection.
4. Therefore, God has shared intentionality.
5. If God has shared intentionality, then there are multiple divine persons.
6. Therefore, there are multiple divine persons.

The key claims in this argument are premises (3) and (5), namely, that shared intentionality is a perfection and that multiple divine persons share intentionality. Directing our attention to (3), we may view SI dispositionally, as a property which its subject is able and willing to act upon, given the appropriate conditions. The claim that SI is a perfection has some intuitive plausibility. For instance, SI is a property that, of all primates, only humans have, affording them the ability to engage in language and culture. Shared intentionality, then, is a valuable good and, arguably, one that a perfect being would necessarily have (i.e. a great-making property).[22]

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Premise (5) claims that God's intentionality must be shared among several divine persons. To support this claim, the Anselmian needs to show that God's shared intentionality is maximal, and that shared intentionality among divine and non-divine persons is not maximal. The latter requirement has some force: if God shares intentionality maximally, then no created person could possibly receive or understand – much less mutually share – the fullness of God's thoughts and desires.[23] However, philosophers of religion have recently questioned whether some divine perfections are the sorts of attributes that *can* be maximal.[24] It is not obvious that SI is a boundless property, that it has no upper limit. If SI is not maximal, then the proof fails at step (5).

Clearly I have not attempted a full defence of (3) or (5). Rather, I seek to demonstrate how Anselmian-style natural theology might defend such claims, and I draw out two important difficulties this methodology faces. First, SI may not be a maximal property, the type upon which Anselmian reasoning depends. Second, the *perfect being argument* deploys the notion of 'perfections' or 'great-making properties'. But reasoning about perfections is subject to serious critique, as Edward Wierenga describes,

> A second principle, enunciated by Anselm in Chapter 5 of the *Proslogion*, is that 'God is whatever it is better to be than not to be'. In the contemporary idiom, God must possess every 'great-making' property. The problem lies in deciding which properties are 'great-making'. Both in the past, and today, the enumeration of great-making properties has proceeded largely on the basis of intuition. For example, you 'just see' that something possessing reason is superior to something which does not . . . I find this plausible . . . but I fear that we can never quite escape the need for intuition. This may just be the nature of things when it comes to values. If you do not see that it is better to be able to do things and to think than not, that a cat is better than a rock, and a human better than a pig, it may be difficult to convince you. (Wierenga (2003), 12)

In short, reasoning along Anselmian lines is heavily dependent on intuition, a much-debated method of persuasion.

As a third difficulty, defending claims like those in (3) and (5) presumes that we know quite a bit about what God is like given our natural faculties of sense and reason – a presumption that Barth and other objectors to natural theology reject. In the face of such criticism, our case is strengthened by avoiding appeals to intuition when possible. I conclude that the *perfect being argument* finds a home in traditional perfect being theology and, given further attention, may prove to be a promising philosophical defence of multiple divine persons. However, because of objections like the three just mentioned, traditional perfect being theology is not universally appealing, and so a more persuasive approach would be welcome if one is available.

I believe that a more cogent approach is available. This approach is still deductive, and involves retaining the core insights of shared intentionality, but it tones down some of the maximality claims typically found in perfect being speculation:

A deductive argument

7. Shared intentionality is necessary for certain linguistic and cultural abilities.
8. A divine person has those linguistic and cultural abilities.
9. Therefore, a divine person has shared intentionality.
10. If a divine person has shared intentionality, then there are multiple divine persons.
11. Therefore, there are multiple divine persons.

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This argument tempers our use of great-making properties and so is more appealing to contemporary audiences than the previous argument. The core claims are made in premises (7), (8), and (10), and I will say a little more about them.

Premise (7) does nothing more than summarize the findings of psychologists working in the field of shared intentionality, as I detailed in the previous section. The seven characteristics I outlined above constitute a necessary foundation for human language. Language, in turn, is necessary for further cultural activity, such as money, property, governments, and, as Searle (1996, 99–100) points out, *meaning*. Notice that (7) is stronger than the claim that the *ability* for shared intentionality is necessary for certain higher order abilities. For example, if it turns out that the great apes have the ability for shared intentionality, but never act on that ability, premise (7) would still be true. We should understand (7) as claiming that SI is a precondition for all language and culture, even if SI is not actively present in every instance of speech or cultural engagement.

Premise (8) is the claim that a divine person engages in at least some of the relevant cognitive and cultural activities. It is worth noting that the term 'person' here does not carry very much theological-philosophical-psychological freight. All that is needed for the argument to work is a divine actor or sharer of intentionality.[25] In regard to (8), we have good reason for thinking that omnipotence allows a divine person to read minds. That is, if there is at least one divine person – and in this article we assume that there is for the sake of argument – then that divine person understands what other agents are thinking, feeling, desiring, etc.[26] Implied in this reasoning is the conclusion that God has culture, which I have described as complex social behaviours and artefacts.

As another example of divine cognitive-cultural activity, we have good prima facie reasons to believe that God communicates with humans, evidenced by Judaeo-Christian scriptures and many purported cases of divine-to-human speech. Notice that this appeal to testimony is not an appeal to some particular proposition from any holy book, which would step outside the bounds of natural theology. Rather, the appeal is to the general and widespread phenomena of divine speech acts, of which the three monotheistic religions (and many other religions, besides) give putative evidence. Thus, if a divine person speaks with other agents or engages in cultural activity (e.g. instituting traditions like marriage), then a divine person must have shared intentionality with those agents. We see, then, that God communicates or speaks, which is one important cultural artefact. Moreover, if God is the creator of the world, then in an important sense the cosmos, too, is a cultural artefact. God therefore can be said to have culture in ways analogous to humanity.

Premise (10) is the claim that a divine person must share intentionality with at least one other divine person. (10) does not rule out the possibility that a divine person shares intentionality with human persons. Rather, (10) is compatible with (8), which expresses the idea that a divine person engages in 'we' relations with humans. Premise (10) extends this idea to other divine persons: if a divine person has 'we' or shared intentionality – and we have reason to believe a divine person does as per (8) – then that intentionality reaches beyond divine–human interpersonal relations to divine–divine interpersonal relations. Why think this is so? That is, why believe premise (10)?

One line of support can be offered along the direction developed by the twelfth-century thinker Richard of St Victor. Richard proposes that love for another, or 'other-love', is a supreme perfection. It is a perfection so good that God necessarily has it, and has it to the fullest possible degree: it cannot possibly be improved upon or increased in intensity (Angelici (2011), 116–117; Richard of St Victor, *De Trinitate*, bk 3.2). In contemporary parlance, divine other-love is maximal.

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According to Richard, divine other-love is perfect and so it is well-ordered to its object. Richard calls this *caritas ordinata*, or 'ordered charity'. On this view, if a divine person loves the particular human Aimee, then he loves Aimee with the type of love appropriate to her as a human. Thus, a divine person does not love Aimee with the love had for a log or for a dog (nor does the divine person love a dog as if it were a human). Further, a divine person loves Aimee with the love appropriate to Aimee in her particularity *as Aimee*. Thus, a divine person's love for Aimee takes different shape than the love extended to Anthony or to Nichole. In sum, divine love matches its object according to that object's kind and according to its particularity. Richard concludes that God does not love humans with maximal other-love. Indeed, maximal love is well-ordered only when it is shared between divine persons.

The proponent of the *deductive argument* could support premise (10) by arguing along a parallel route as Richard. Here we would need to show how divine shared intentionality, like divine other-love, can only be maximal when it is shared among divine persons. However, this line of reasoning once again brings us into talk about maximal attributes – conceptual territory that is contested, as we saw in the *perfect being argument*. Thus, there are sound deductive arguments available to the natural theologian that deploy the psychology of shared intentionality. However, it is not clear to me that any deductive arguments are available that do need to deploy some sort of maximality thesis.

To conclude this section, the *deductive argument* attempts to improve upon the *perfect being argument* by limiting the number of instances in which it relies on intuitions, and as much as possible replaces a priori claims with empirical findings from the psychological field of shared intentionality. Even with these modifications, the *deductive argument* still uses claims about divine maximality, and so may be a bridge too far.

Looking for another method of reasoning that employs the findings of the psychological sciences more persuasively, one excellent candidate appears to be the relatively neglected field of analogical reasoning. Analogical reasoning is much more common than deduction, and its epistemic criteria are far less demanding. Further, analogical arguments fit more naturally with the field of shared intentionality, and with the psychological sciences generally. Deploying the findings of we intentionality in an argument by analogy may prove to be significantly more promising than traditional, deductive inference.

Below I will develop a line of analogical reasoning about shared intentionality and multiple persons, both human and divine. Before investigating that argument, a few brief notes on analogy and analogical arguments will be useful for understanding this (often neglected) form of reasoning, and for helping us appreciate its power as a tool for natural theology.

Analogies, analogical reasoning, and analogical arguments

We may begin by distinguishing between analogies, analogical reasoning, and analogical arguments (Bartha 2022). An analogy compares two items (the *analogues*), identifying respects in which they are similar. Most analogies start with an analogue that is more familiar to us (the *source analogue*) and then make comparisons and conclusions about an analogue that is understood less well (the *target analogue*).

Analogical reasoning is a mode of inference that employs an analogy. Analogical reasoning is especially pertinent in the present discussion for at least two reasons. First, cognitive scientists widely recognize that analogical reasoning is, by a significant margin, the most common form of human day-to-day reasoning (Gentner and Smith 2012). Second, analogies and analogical reasoning play critical roles in scientific thought (Bailer-Jones 2002). Thus in the middle part of the eighteenth century, Joseph Priestley, an early worker in the chemical and electrical sciences, could aver that 'analogy is our best guide in all philosophical investigations; and all discoveries, which were not made by mere accident, have been made by the help of it' (1966, 14). Stated another way, analogies are crucial for

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deductive, and especially inductive and abductive, reasoning.[27] For this reason, analogies are not only prevalent in the sciences, but have long been employed in Christian theologizing, and particularly in trinitarian theology.[28]

Analogical arguments are a more explicit, often formalized mode of analogical reasoning. Stated roughly, an analogical argument proceeds in two steps: first, two objects are shown to be the same in some respects; second, from these similarities, it is concluded that the two objects are the same in some further respect. Most textbooks give analogical arguments something like the following basic formalization:

Basic analogical form

12. Object 1 (the source analogue) has characteristic F and G.
13. Object 2 (the target analogue) has characteristic F.
14. Therefore, object 2 has characteristic G.

We will adapt this generalized formulation into a more sophisticated formulation, below. For now, though, the basic form allows us to note a few important features of analogical arguments. First, the objects or class of objects being compared may be a *same-domain* comparison (such as two groups of planets), or a *different-domain* comparison (such as planets and atoms). Second, the analogues must share at least one, and possibly many more characteristics (viz., the *known similarities*). Typically, there is only one characteristic which appears in the conclusion (viz., the *inferred similarity*).

Third, regarding the conclusion itself, most introductory texts claim that arguments by analogy are purely *ampliative*, that is, they only generate probable conclusions. However, logicians currently working on the nature and function of analogical arguments challenge the textbook view (Davies 1988), arguing that the force of analogical conclusions is quite varied: the conclusions of analogical arguments may be possible, probable, or epistemically conclusive (though they do not follow of logical necessity, as in deductive arguments).

The preceding three features show up in the analogical arguments presented in the next section. Before turning to those arguments, it is important to note a fourth and final feature. While analogical reasoning can show a conclusion to be plausible or probable, this is a task at which inductive arguments tend to excel. Analogy, though, has a variety of functions, as befits their pervasive use. One of their most important capacities is to show that some conclusion or line of inquiry is fruitful for its field and worthy of further investigation (Bartha 2022). We find that analogical arguments can (to borrow from Kuhn's description of fruitfulness in scientific theory), 'disclose new phenomena or previously unnoted relationships among those already known' (Kuhn (1977), 322).

One powerful function of analogical arguments is to direct our attention to some trajectory of thought, underscoring its worthiness for further pursuit (Ivani 2019). This is how Thomas Reid deployed his argument by analogy for life on other planets, leading Bartha to conclude: 'Often the point of an analogical argument is just to persuade people to take an idea seriously' (Bartha 2022). As Reid did in cosmology, theologians and philosophers of religion may construct fruitful analogical arguments in their own fields. It is in this role that I will deploy shared intentionality to develop some analogical arguments about human and divine persons.

Shared intentionality and divine persons: an analogical approach

To date, analogical reasoning is found in RNT only in arguments for the resurrection of Jesus (Fuller (1966); McGrew and McGrew (2012), 622–628). These arguments deploy a 'principle of analogy' in analogical reasoning, but do not advance any analogical *argumentation*. Thus, RNT is a field ripe for analogical harvest. Taking initial steps towards this end,

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I will start with a simple analogical argument following the basic form outlined in the previous section:

Basic analogical argument

15. Humans engage in (i) mind reading, (ii) speaking, (iii) creating and participating in culture, and (iv) sharing intentions.
16. God engages in (i) mind reading, (ii) speaking, (iii) creating and participating in culture.
17. Therefore, (iv) God engages in sharing intentions.

'Mind reading' in premise (15) refers to the activity of understanding mental states of others, such as beliefs, intentions, desires, emotions. Mind reading allows for, and perhaps includes, the mind reader's act of anticipating the actions of others. 'Speaking' refers to complex communication via symbols which allows for the intentional transmission of information, as well as other perlocutionary acts. 'Creating and engaging in culture' – or 'culturate' for short – refers to the development of novel forms of culture (such as creating the practice of marriage), developing tokens of cultural activities (such as creating the practice of getting married on a boat), and involvement in cultural practices (such as serving as the bridesmaid in a cruise-ship wedding).

The basic analogical argument given above does a fine job of expressing the main idea: divinity and humanity are both characterized by a network of closely related social and cognitive psychological attributes and relations. Since God and humans have attributes and relations (i) through (iii), we may conclude by analogy that God also has (iv).[29]

Scholars in the field of informal logic have seen that the basic form of analogical arguments can be improved. For instance, the logician André Juthe (2005) recently advanced a formal structure for analogical arguments which highlights their strengths and their resistance to some common critique. The argument below follows Juthe's formal structure:

Improved analogical argument

18. God (i) reads minds, (ii) speaks, (iii) creates and engages in culture (i.e. culturates).
19. Humans (iv) share intentionality in virtue of (i) reading minds, and as a condition for (ii) speaking and (iii) culturating.
20. Human mind reading, speaking, and creating and engaging in culture are counterparts of God's mind reading, speaking, and culturating.
21. Therefore, God shares intentionality.

The *improved analogical argument* retains the essential features of analogical arguments that we encountered in the *basic analogical argument*, above. For instance, the improved argument begins with particular objects of common experience (viz. humans), to reason by analogy about a particular object which is less commonly experienced (viz. God).[30] While preserving core features of analogical argumentation, the *improved analogical argument* uses two concepts not seen in the *basic analogical argument*, namely, the 'in virtue of' relation, and the notion of 'counterparts'. We will examine these concepts and the argument's more complex structure. We will then evaluate the argument itself.

Premise (19) of the *improved analogical argument* states that humans share intentionality 'in virtue of' mind reading. Typically, 'in virtue of' (and 'on the basis of' and 'based on') is understood as a grounding relation, which is itself a debated notion. Here I seek to avoid any larger discussions about grounding relations, instead limiting my attention specifically to the relationship between shared intentionality and mind reading.

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Mind reading relates to shared intentionality in that the former is a necessary condition for the latter. That is, S^1's activity in understanding S^2's mental states and anticipating S^2's actions is required for S^1 to share intentionality with S^2. Note that the mere *ability* for mind reading is not sufficient for SI. In terms of dispositions, the disposition for mind reading must be activated for SI to also be activated. Stated again, when S^1 is sharing intentionality with S^2, S^1 is also mind reading with respect to S^2. Thus, mind reading is not merely modal. It is a ground for SI as a constitutive condition: SI is constituted, at least in part, by the manifested disposition of mind reading.

Shared intentionality stands at the opposite side of the grounding relation to speaking and culturating as it does to mind reading. Where mind reading is a necessary condition that partially constitutes SI, SI itself is a necessary precondition of speech and culturating. Thus, SI stands at the centre of a complex chain of activities which are uniquely human. Further, each activity in the chain partially constitutes activities later in the chain (see the figures below).

Premise (20) contains a claim about counterparts, which is a condition for the validity of analogical arguments (Weizenfeld 1984). Counterpart features, or simply *counterparts*, do the heavy lifting in showing that two objects are analogous in some respect. The idea is that two objects are analogous in some way if those two objects are proportionate in certain respects. 'Proportionate' here refers to the relational structures had by the two objects. Recall that the *source analogue* is the object more known by experience, and the *target analogue* is the object less known. We may conclude that the target analogue shares the assigned predicate with the source analogue by showing that both analogues share a relational structure in which the inferred similarity fits. Specifically, the features of the source analogue under consideration stand in certain relations to each other.

Further, features of the target analogue also stand in certain relations to each other. When the features of the source and target analogues stand in the same relations, those features are properly proportionate to one another and make for a good analogical argument. Stated another way, when the known similarities of the source analogue and of the target analogue are counterparts, then an important condition has been met for the validity of an argument by analogy. As a helpful image, we may imagine two chains, each with ten links. Each link plays a special role in making the chain functional, and each link needs to be in its particular numerically ordered place for the chain to hold together. We regularly use the first chain and so are quite familiar with it. We are less experientially familiar with the second chain because it lies high on an upper shelf where we cannot touch it; we can only see nine of its ten links (all but the fifth link). Comparing the two chains, we see that links one to four and six to ten of the second chain are all quite similar with their counterparts in the first chain. Since the nine links in the second chain match their counterparts in the first chain, we have good reason for thinking the fifth link also matches. Further, since the fifth link in the first chain *needs* to be there for the chain to function, we have even more reason to think that the second chain has its own similar fifth link that is necessary to the chain's functioning.

The analogy has its limits, of course, but helps us see the basic logic at work in the *improved argument*: the similar property about which we are inferring sits in the middle of other closely connected relations and properties. We may diagram the general notion of counterparts (Figure 1).

In this figure the target analogue has counterparts of all the source analogue's features/activities and relations – except, of course, for the target similarity, which is the feature under consideration in the analogy. The solid lines ending with an arrow and the dotted lines indicate types of relations in the structure. The following figure applies this general schema to our *improved argument* (Figure 2).

This figure helps us visualize the cluster of human and divine social-psychological mental states and activities. For example, we see that shared intentionality depends on

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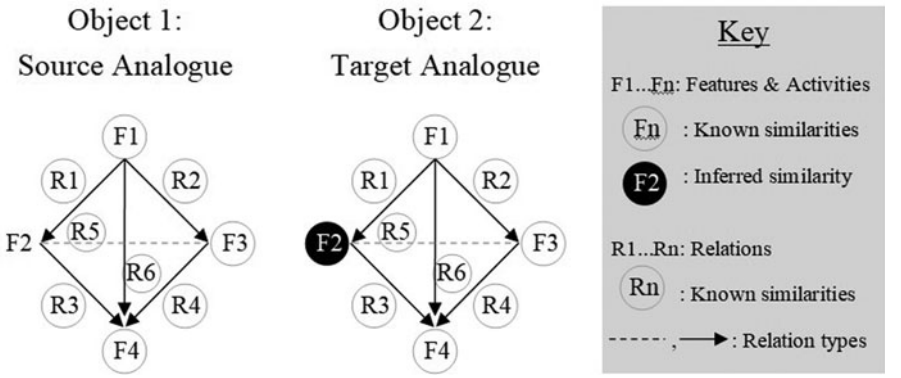

Figure 1. Counterparts.

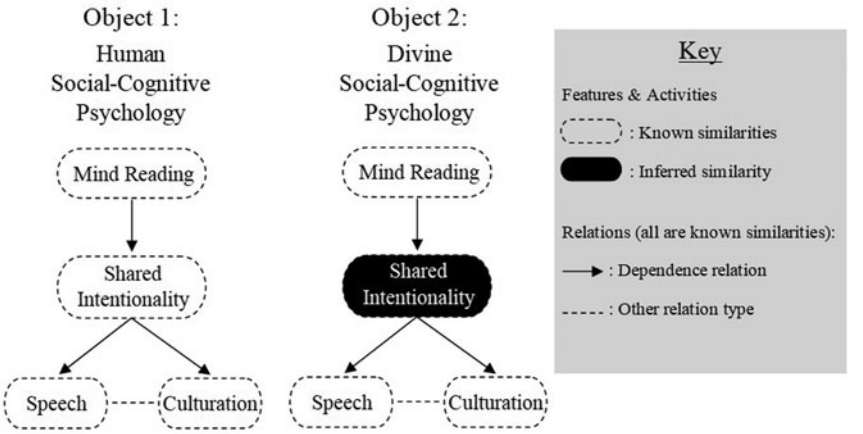

Figure 2. Human and divine social-psychological structures.

mind reading; speech and cultural engagement stand in some interesting relation to one another, and both depend on shared intentionality. Further, shared intentionality is situated in the middle of this complex social-psychological cluster. Putting divine shared intentionality to the side for the moment, we also see that all features/activities and relations in the divine structure are structurally proportionate to the human features and their relations. In short, the human features and relations have divine counterparts. This successful analogy yields good reason for concluding that a feature which is had by humans – namely, shared intentionality – is also present in divine psychology.

One asset of the *improved argument* is that it does not claim that humans and God have a psychology in exactly the same sense. This alerts us to another reason analogical arguments are so well-suited to RNT, and to natural theology generally: analogical reasoning takes no stance on the univocity or analogy of predicates about divinity; the *improved analogical argument* is sound whether or not our language about God is analogical.[31] Further, this argument avoids simplistic types of objections often found in textbook, such as Hume's critique of analogical relevancy. Briefly put, logicians are making it increasingly clear that analogical arguments are more sophisticated than previously thought and, when given well-formed expression, are highly resilient to some common critiques (Weizenfeld 1984).

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More importantly, and more central to Christian natural theology, we may note that the *improved argument* does not make claims about the existence of multiple divine persons, but rather advances a more modest conclusion for divine shared intentionality. This conclusion can serve as a basis for further RNT investigation and may be used in several mutually complementary lines of inquiry. For example, the analogy may be extended to include reasoning about the nature of the participants in shared intentionality. Here we might reason along the following analogical trajectory: for any human, she shares intentionality with a similar type of person (viz. other humans); by analogy, we have good reason to believe that any divine person shares intentionality with similar type of persons (viz. other divine persons).

As another line of inquiry, we could draw further from the psychology of we intentionality. Promising psychological resources include the social-psychological motivation for reciprocal, even commensurate social wholes. That is, humans not only form 'we's, but humans also aim for a we in which the participants share coordinate (or proportionate) intensity of desires, mental acuity, and active contributions to environmental manipulation. Put roughly: people typically desire and work towards collectives in which every member has an equal volitional, emotional, intellectual, and practical share. We may conclude by analogy that a divine person desires collectives in which members have commensurate psychological (volitional, intellective, etc.) stake. But – per Richard of St Victor – a divine person's desires and cognitive capacities can be matched only by other divine persons. Here we have a possible line of argument for multiple divine persons that does not depend on notions of maximality or perfections, but instead reasons by analogy.

Clearly, the two analogies just suggested are initial 'proof-of-concept' proposals, and they will need development to be valid analogical arguments and to be at all cogent. But these trajectories do indicate a way forward in trinitarian natural theology that both employs the empirical sciences *and* does not depend on Anselmian-style perfect being theology. Moreover, they reveal that RNT can incorporate work from the sciences and that such a project evidences some fruitful findings worthy of attention by psychologists, philosophers of religion, and integrative theologians.

Conclusion

My goals in this article have purposefully been quite modest: I have explored a recent philosophical-theological research question (ramified natural theology) that takes certain empirical data seriously (shared intentionality). Towards that end, I introduced some main ideas of the field of SI and explored a deductive and analogical approach for employing these ideas in RNT. The article is exploratory in that it sought to identify a strong fit between the psychology of SI and the discursive methods of RNT. My aim here was to investigate whether shared intentionality presents a fruitful source for thinking about divine social-cognition; that is, whether SI and RNT yield new lines of inquiry, or new ways of thinking about the question of divine plurality. I found that analogical arguments provide a strong medium for deploying SI. The analogical arguments I sketched argued for divine shared intentionality, giving a trajectory for further research into divine personal plurality. Shared intentionality, then, looks to be a promising dialogue partner with natural theologians concerned with philosophical analysis of multiple divine persons.

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Notes

1. William Alston (1991, 289) describes it this way:

> Natural theology is the enterprise of providing support for religious beliefs by starting from premises that neither are nor presuppose any religious beliefs . . . in this manner we try to go as far as we can in building up a picture of God without relying on any supposed experience of God or communication from God, or on any religious authority.

2. For a good place to start see Craig and Moreland (2012), 1–23.
3. A term coined by Swinburne (2004b).
4. The locus classicus is Swinburne (2004a).
5. See the RNT themed issue of *Philosophia Christi* 15.2 (2013).
6. Perhaps more accurate: modern arguments are *inspired* by their forebearers, since many contemporary arguments bear no obvious dependence relation on the originals. Many of the best examples occurred in the early Boyle Lectures, such as William Derham's early eighteenth-century work, 'Physico-Theology, or a Demonstration of the Being and Attributes of God from his Works of Creation' (Burnet 2000) and Robert Hooke's late seventeenth-century *Micrographia* (Fara 2009).
7. One prominent example is John Polkinghorne (2008, 66–95; 2003), who advocates for 'consonance' between science and theology (of which natural theology is a sub-discipline).
8. Rodney Holder (2021), recently of the Faraday Institute for Science and Religion, uses specific sciences as parallels for certain RNT methods but he does not employ the findings of those sciences in his own arguments.
9. Because shared intentionality is still new and so inter- and intra-disciplinary, it is difficult to say what represents a consensus view. Though there is debate, as is to be expected, the account detailed in this section is very well represented in the scholarly literature and may indeed be the majority position. I primarily follow the accounts developed by Tomasello, Carpenter, et al. (2005) and Tomasello and Carpenter (2007), who are both pioneers and leading experts in the field, and certainly thinkers with whom any other voices in the conversation must engage.
10. These three philosophers are consistently cited throughout the scientific literature. See Searle (1996); Gilbert (1992); Tuomela (1995). Also cited often is Bratman (1999; 2014).
11. To iterate: this article limits its attention to the use of 'shared intentionality' developed by proponents working in the psychological sciences. Thus, not everything that could plausibly be called shared intentionality in a general understanding of those terms, or in the technical sense used by analytic philosophers, will count as shared intentionality as I use the term.
12. A fine place to start is the special issue of *Behavioral and Brain Sciences* (Tomasello et al. 2005). This article and others cited in the current section reference the studies which provide empirical data for the seven conditions detailed in this section.
13. Psychologists are largely aware of the philosophical use of 'intention' as referring to any mental state that has 'aboutness'. Most often, though, psychologists use the term in reference to the possible state of affairs, that is, the mental model.
14. Shared intentionality may obtain in the absence of element (iii). That is, a group of people can form a 'we' in regard to some goal even if they have not yet acted on their shared goals. In such a case we could modify (iii) to read that 'S1 and S2 both engage, or are disposed to engage, in some behaviour.' However, activity is critical for a robust understanding of SI because humans often form social wholes (a 'we') precisely to achieve some outcome together. Humans are motivated to act together not merely because in so doing their goal is better achieved. Instead, the motivation stems in part from the payoff of working towards a goal *together* (which includes all seven elements outlined in this section). On the dispositional analysis of we-intentions, see Tuomela (1995, 112–170).
15. There is debate among psychologists on whether joint attention is a precursor (a necessary condition) of mind reading, or whether it is an early instance of mind reading itself. I find Tomasello et al.'s proposal for the latter view convincing. However, my project works fine with either view. For the mind reading view, see Tomasello et al. (1993). For an alternative proposal, see Leslie (1987).
16. It also allows the mind reader to empathize (Morin and Racy (2021), 375–376).
17. Thus Tomasello et al.:

> in addition to understanding others as intentional, rational agents, humans also possess some kind of more specifically social capacity that gives them the motivation and cognitive skills to feel, experience, and act together with others – what we may call . . . shared (or 'we') intentionality. As the key social-cognitive skill for cultural creation and cognition, shared intentionality is of special importance in explaining the uniquely powerful cognitive skills of Homo sapiens. (Tomasello et al. (2005), 687)

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18. '[C]ommunicating only to share interest in things and communicating only to share information seem to be uniquely human' (Tomasello et al. (2005), 687).
19. There is some debate over the relationship between we intentionality, speech, and culture (Gergely and Csibra (2005); Baldwin (2016)). Since all participants agree that SI is necessary for language and culture, nothing in my project rides on the debate's outcome.
20. The claim here is not that the cluster of social-cognitive activities is sufficient for human uniqueness; rather, the claim is merely that they are a necessary condition.
21. The following argument is adapted from Murray and Rea (2008), 132.
22. For a discussion of great-making properties, and of issues about maximality, see the recent article by Mastoridis (2020).
23. A divine person cannot share intentionality with itself, since by definition SI is shared among multiple subjects (as described in elements (i)–(vii) in section 2).
24. See Murphy (2017); cf. Rea (2018), 63–89.
25. For the purposes of this argument we could just as easily say 'divine agent' or 'divine who'.
26. I take no stance on whether a divine person has this knowledge immediately, as on the classical understanding of God's omniscience, or whether a divine person gains such knowledge discursively or inferentially, as on a process or open view of God's knowledge.
27. See Klix (2001).
28. The best general treatment of analogy in theology is probably still Woods (1956); see also McFague (1982).
29. One concern might be that theologians could make an analogical argument from human social-psychological activities such as stereotyping, judging biasedly, and gossiping. True, analogical reasoning does not prevent us from using these inputs to reach conclusions about divine bias, gossip, etc. However, the psychological structure in which these activities are embedded is deeply flawed, both internally to the gossiping agent, and externally in the social structure of S^1 and S^2 speaking ill of S^3 without S^3 knowing. Minimally, then, such analogies lose significant intuitive force and cogency. (Though analogical arguments do not depend on intuition as do Anselmian-type arguments, intuition and audience background beliefs always play a role in how an argument is understood and evaluated.)
30. Analogical arguments reason particular-to-particular, and so seem to be distinct from deductive arguments which often reason general-to-particular, inductive particular-to-general, and abductive general-to-general. However, analogy, like induction, reasons from that which is more known by experience to that which is less known. For these and other reasons the taxonomy is debated, and nothing in my case rides on whether analogy (or abductive inference, too) is a species of induction.
31. The language used in the premises of the analogical arguments must match for the argument to be valid. That is, if we say that human persons 'create culture' or 'speak', we must predicate these same actions of divine persons for a well-formed argument. However, though the language or terms used to predicate qualities of divine and human persons is the same, nothing about the argument requires the mode of predication to be univocal. Indeed, it is not true that all humans speak in exactly the same way (some use spoken words, others use sign-language). As I have presented them, the analogical arguments allow for predicates to be used and understood analogically, though the precise sense of analogy (or univocity) must be further worked out in a full presentation of the argument.

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