

## Why is the Teleological Argument so Popular?

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### *Abstract:*

Why are teleological arguments based on biological phenomena so popular? My explanation is that teleological properties are presented in our experiences of biological phenomena. I contrast this with the view that the attribution of teleological properties to biological phenomena takes place at an intellectual level – via inference, and as belief or similar propositional attitude. I suggest five ways in which the experiential view is the better explanation for the popularity of such teleological arguments. Experiential attributions are more *easy*, *impactful*, and *implastic*. The experiential view accommodates cases of conflicting attributions, and it makes sense of the readiness with which we follow such teleological arguments. I respond to objections and explain how my view builds on existing answers to this question found in the philosophical literature. *Keywords:* high-level perception, philosophy of perception, teleological argument, teleology, William Paley.

### 1. Introduction

This essay seeks to explain why teleological arguments that base themselves on the teleological properties of biological organisms are so popular. I begin by showing that such teleological arguments are popular, and indeed unduly popular. I then outline two potential competing explanations of this popularity. On one view, our attribution of teleological properties to biological organisms is the result of intellection (cognition, *dianoia*) – using inference, we arrive at a belief or similar propositional attitude. On another view, our attribution of teleological properties to biological organisms occurs non-inferentially within experience (perception, *aisthesis*). Next, I suggest 5 ways in which the experiential view is a better explanation for the popularity of such teleological arguments, appealing primarily to some differences between intellection and experience. Lastly, I respond to several objections, and show how my account builds on existing discussions of the popularity of the teleological argument and the

nature of teleological attributions, made by Helen de Cruz, Johan De Smed, Doren Recker, and Del Ratzsch.

Although the goal of the paper is to explain the popularity of teleological arguments, my discussion may also be of interest to philosophers of perception because it functions as an argument for the claim that teleological properties are presented in experience, as the best explanation for the popularity of teleological arguments.

I briefly characterize two of the key terms. I take teleological properties to include function, purpose, goal, intention, desire, or being designed – any “forness,” any “that for the sake of which a thing is” [1, 1013b 3], whether intrinsic to a biological kind (“that which has the function of pumping blood is a heart”), or featuring in an explanation of its existence (“the heart was designed to pump blood,” “the heart evolved because of its fitness-enhancing function; pumping blood”). By teleological arguments I will mean those arguments that make an inference from the existence of teleological properties in biological phenomena to the existence of any ‘non-naturalistic’ ultimate reality (Plato’s demiurge, Aristotle’s unmoved mover, the God of classical theism, a panpsychist world-soul, etc.). This includes inferring from design to a designer – a deity who assembles biological phenomena as one might assemble flatpack furniture. This also includes inferring from less explicitly agential teleological properties to some non-naturalistic ultimate reality, e.g., that living things have the goal of reproducing because in this way they “partake of the everlasting and the divine” [2, 415b 1-5], that the *teloi* of living things aim toward the ground of being, that living things are images of the cosmic drama. My discussion does not concern arguments for non-naturalistic ultimate realities that draw on data other than the teleological properties of biological organisms – e.g., the orderliness of the universe [38, pp. 153-166], or fine-tuning arguments about how the laws of physics permit ‘complex matter’ or ‘embodied moral agents’ rather than biological phenomena *per se* [8].

## 2. Explanandum: the Popularity of Teleological Arguments

Teleological arguments are popular in that they are ancient, cross-cultural, and widely-employed. Teleological arguments are offered by philosophers from a variety of civilizations and religious traditions; Christian and Islamic [14, p. 226], Hindu [7], Chinese [21, p. 9], and Hellenic [42, Bk1 Sec4, Bk4 Sec3]. Similarly, many polytheistic religious traditions posit deities who “cooperate in creating and maintaining the world” [3, p. 18]. Again, in animistic religious traditions, some ultramundane force or agency is posited as a constitutive aspect of living things [15, p. 99]. Among contemporary philosophers, teleological arguments continue to be popular [31].

It is hard to say how popular teleological arguments, of some rudimentary kind, are among the contemporary general public. The best available proximate evidence suggests that they are popular. Making teleological attributions about biological phenomena, including that they are intentionally designed, is very common even among the irreligious [18]. Around the world many people believe that human beings have always existed in their present form, or that their evolution was guided by God. Large minorities, and in some cases majorities, affirm the former in Latin America [26, p. 99] and the Muslim world [28, p. 132]. Around 35% of British people do not endorse a naturalistic evolutionary view [43], nor do 67% of Americans [27, p. 9]. In the single large-scale study conducted on this question in India, 68.5% of participants affirmed evolution, though the study did not further distinguish naturalistic evolution and non-naturalistic evolution<sup>17</sup>. In my experience, teleological arguments are offered more commonly, by non-philosophers, than most other theistic arguments – the teleological argument seems to ‘occur’ to most people in a way that, say, the ontological argument does not.

A straightforward explanation for the popularity of teleological arguments would be that they are rationally persuasive. Granting that this is a part of the explanation (I am unsure), it cannot be the whole explanation. Most people in most societies are not in an epistemic position to accept that teleological arguments are rationally persuasive; they are widely regarded as untenable, and primarily for a reason

with which most people are familiar, or which they know to be the position of the relevant experts – the success of Darwinian evolution as a debunker. Moreover, the datum on which teleological arguments draw has a certain attraction even for those who explicitly reject it. Francis Crick notes that, “Biologists must constantly keep in mind that what they see was not designed, but rather evolved” [9, p. 138]. By contrast, say, geologists do not have to constantly keep in mind that what they see is not designed. Richard Dawkins coins the term “Designoid objects” for those biological phenomena that “look designed” or which “impress us” as designed [10, pp. 6, 10].

### 3. Teleological Attributions to Biological Phenomena

Teleological arguments infer from the teleological properties of biological phenomena to some non-naturalistic ultimate reality. On the intellectual view, we have to infer the existence of these properties, whereas on the experiential view we are aware of these properties non-inferentially. The difference between these two views is about the loci at which attributions of teleological properties emerge.

#### 3.1 *The Intellectual View*

My purpose in this section is not to provide a piece of Paley scholarship. Rather, I give what I take to be a plausible reading of Paley’s teleological argument as an example of how, on the intellectual view of teleological arguments, we come to attribute teleological properties to biological phenomena.

Paley’s teleological argument is an inference to the best explanation, supported by an analogy between artefacts and biological organisms [11, p. 667]. Paley notes that artefacts and biological organisms share certain properties. In the source-domain of the analogy, artefacts, we best explain the occurrence of these properties by appeal to design; we know that these properties occur because of design. So, when we map on to the target-domain of the analogy, biological organisms, and find the same properties, it is reasonable to infer that biological organisms are also designed. What are these properties? Using the famous example of a watch, Paley notes that:

if the several parts had been differently shaped from what they are, of a different size from what they are, or placed after any other manner, or in any other order, than that in which they are placed, either no motion at all would have been carried on in the machine, or none which would have answered the use, that is now served by it [25, p. 7].

We can identify in Paley’s remarks three properties of the watch: (i) a complex arrangement of parts, (ii) a benefit yielded by this complex arrangement, and (iii) a close counterfactual dependence of the benefit yielded upon the complex arrangement of parts. From these three properties we are to infer that the watch has the property of being designed. The co-occurrence of these three properties is unlikely on alternative hypotheses such as chance, mere causal-efficient mechanism, or some vaguely conceived principle of order. So, these hypotheses cannot be credited by “any man in his senses” [25, p. 9]. Paley suggests that in biological organisms we very often find the same three properties as in the watch. So, we should infer that biological organisms are designed.

Throughout *Natural Theology* Paley styles his case in terms of understanding, inference, and analogy – strongly intellectual terms. As I read him, Paley’s teleological argument is that, having recognized these three properties, we use our faculties of reasoning (in this case, inference to the best explanation) and of imagination (analogy) to form the belief (or similar propositional attitude – opinion, judgment) that biological phenomena are designed. On this view, we attribute teleological properties to organisms on the basis of inferences, we are led to make such attributions by arguments.

### 3.2 *The Experiential View*

I spend a moment characterizing what it means for a property to be presented in experience, and then relate this characterization to teleological arguments.

Something is intentional if it is “about” something else, if it “points toward” something beyond itself. For example, books and thermometers are intentional artefacts; the book is about a war, the thermometer indicates the temperature. Within the intentional, some things are presentational in that they “show” something, making it present to us, making it available for various kinds of interaction. My imaginative mental states about my friend Margaret make her present to me, the photograph of Margaret presents her to me; allows me to admire her, desire her, honor her, insult her, etc. In contrast to the presentational is the representational, which “tells” us about something, making it present to us at a certain remove – e.g., propositions about Margaret.

It seems that every day sensory experience is presentational; it makes properties present to us, it shows them to us. For example, I am having a visual experience that presents my desk as having the property of being brown, I am having a tactile experience that presents my jumper as having the property of being soft. As in the case of the photograph of Margaret, our everyday sensory experience is presentational in that it only makes things present to us in a limited mode; the photograph is not Margaret ‘in-herself,’ my experience of the orange peel is not the orange peel in-itself.

Experience is a term pertaining to phenomenology, of “what it is like.” As a phenomenological term, to say that an experience presents to me that there is a chartreuse splotch on my desk is not to make the metaphysical assertion that there really are such things as color-properties, or that splotches are a natural kind – it is only to describe how things seem in my experiences.

When properties are presented in experience, their being so presented does not come about due to any process of inference, understanding inference as a process that is minimally cognitively accessible. When experience presents that there is a chair in front of me, the chair is presented in experience non-inferentially – I have no sense of having to go through a conscious, deliberate, or rational process to experience the chair; I do not infer that there is a chair present to me due to the presence of certain properties of shape and colour; I am not able to semantically formulate the configurations of properties to which I attribute the property “chair.” This is not to deny that, at some sub-inferential level, our thoughts penetrate our experiences [12] or that our experiences are coloured by past inferences (e.g., at some point I learned what Rubik’s Cubes are, and now find Rubik’s Cubes presented by experience, rather than only seeing an assemblage of coloured squares and inferring that it is a Rubik’s Cube).

The experiential interpretation of teleological arguments, then, is that when we look at biological phenomena, our experiences present them as having teleological properties. Looking at the shoot of cress, I see that it is striving toward the light. Looking at the claw, I see that it is for grasping. Looking at the Venus Fly Trap, it seems designed. On the experiential interpretation, the attribution of teleological properties to biological phenomena is not made by inference from some other properties. Rather, the appearance of teleological properties in experience is the basic empirical premise, the data, that teleological arguments then make inferences from. In the case of design, the inference will be quite simple; ‘design, therefore designer’ – for other teleological properties, the inferences may be more complex.

As in the case of “chair,” the presentation of teleological properties may supervene upon – may depend upon, may require, may emerge out of – the presentation of shape properties and the like, but is not the result of inference from them. In this way, the experiential view of teleological arguments is an instance of a wider tendency within the philosophy of perception to say that experience is rich, that it contains “high-level properties” – that we experience causal properties, moral properties, the mental states of others, etc. – rather than only “low-level properties” such as shape and colour [16].

## **4. Five Ways in Which the Experiential View is a Better Explanans for the Popularity of Teleological Arguments**

### **4.1 *Ease***

On the experiential interpretation, the attribution of teleological properties arises with ease, meaning a readiness or facility in the occurrence of an attribution. All else being equal, an attribution that can be made with ease will occur more frequently. On the view that teleological properties are presented in experience, we have a very straightforward explanation of why it is that people easily and often attribute teleological properties to organisms; they just experience them as having these properties.

By contrast, on the intellectual interpretation, inferential operations have to be undertaken for an attribution of teleological properties to occur. These can be quite abstract and demanding. In the case of Paley's argument, it is no small procedure to note that things in some domain have three given properties, that these properties are also found in some other domain, that the best explanation for them is that they are designed, and so forth. That an attribution occurs via inference makes its occurrence less easy. On the intellectual interpretation, one has to make inferences of some kind to even arrive at the basic datum of teleological arguments; so, the experiential interpretation better explains their popularity.

The experiential view is bolstered when we note that Paley's argument seems to radically underestimate the constellations of lower-level properties to which we attribute teleological properties. Suppose that you pitch your foot on a perfect sphere of stone, rather than a watch. Plausibly, one might attribute being designed to the stone. Yet, the stone apparently does not have a complex arrangement of parts, nor yield any benefit, nor exhibit a close counter-factual relation between these two. This strengthens the case for supposing that teleological attributions arise in experience, rather than that they result from inferences from an indefinite morass of properties. Suppose that someone attributes teleological properties to the trunk-like nose of the Saiga Antelope. They might imagine that they make this attribution because they have inferred these teleological properties from the complex arrangement of the nose's parts, the benefits yielded, and the counterfactual dependence of the latter on the former. They are then presented with a perfectly spherical stone, lacking all of these properties, but nevertheless immediately attribute being design to it. This undermines the claim that, in the case of the Saiga Antelope's nose, such a person is going through the intellectual process of inferring the existence of teleological properties from certain other properties.

### **4.2 *Impact***

The experiential interpretation better accounts for the popularity of teleological arguments by making the attributions on which they draw more impactful. By impact I mean the effect one mental state has on other mental states; causing related mental states, shaping other mental states around itself, inhibiting other mental states, etc. For example, when I imagine something disgusting and then find that my desire to eat has disappeared, my imagining has impacted my desire. Again, when my emotion of sadness leads me to ruminate on all sorts of negative incidents from the past, this affective state is impactful with respect to my memory and imagination. Again, when my desire brings about wishful beliefs, my desire is unduly impactful. The idea of impact draws on Michael Tye's idea of "poise" – poised mental states are ones which "stand ready and available to make a direct impact" [40, p. 62] on other mental states.

Typically, beliefs (or similar intellectual states reached via inference) are less impactful than experiences. If I believe that there is a gunman near me, I will feel terror and decide to run toward the exit. Yet, if I am having a visual experience of the gunman I will feel even greater terror and find my body involuntarily launching itself toward the exit. If our attributions of teleological properties to biological phenomena are experiential, then this predicts the popularity of teleological arguments, since such arguments will draw on attributions that are impactful with respect to our other mental contents;

ingressing themselves deeper into our mental life; more thoroughly ordering our emotions, evaluations, imaginings, beliefs, etc.

### **4.3 Implasticity**

The experiential interpretation helps account for the popularity and undue popularity of teleological arguments by making the attributions on which they draw implastic. Implasticity denotes the way in which an attribution continues to be made, does not weaken, in the presence of countervailing factors, whether these factors are properly evidential in nature or more broadly psychological: counter-arguments, awareness of what is normatively acceptable in one's society or peer-group, appeals to authority, cajoling, and so forth [5, pp. 123-124].

Plausibly, experience is by no means completely implastic: with respect to what it is that we pay attention to, and what properties we experience, there are instances in which evidential and more broadly psychological factors are influential at some margin. Similarly, belief is by no means completely plastic – human beings suffer from a plethora of cognitive biases, many of which involve holding on to beliefs in spite of contrary evidence. Nevertheless, in general, experience is more implastic than belief. Many people can convince themselves to believe in ghosts, but relatively few can convince themselves to experience ghosts.

In this vein, there is empirical evidence suggesting that our tendency to make teleological attributions about biological phenomena is implastic. For example, it seems that educational efforts intended to prevent people from making such teleological claims have only limited success: in one American study, high school biology students, students in lower-level college physiology classes, and students in higher-level college physiology classes, all endorsed teleological explanations of human biological processes at approximately the same rates, circa 60% [33, see also 37, 39]. Under speeded conditions teleological attributions about biological phenomena significantly increase, even among atheists [18], and professional physical scientists [20]. Such teleological attributions increase among those suffering from Alzheimer's [22], and are ubiquitous cross-culturally in children [19, 34, 35]. Where more intellectual processes cannot squash the attribution of teleological properties to biological organisms, we find it occurring, rather than finding that such attributions depend on intellectual processes. I consider these empirical studies to be very strong evidence against the intellectual view and for the experiential view. If the intellectual view is correct, teleological attributions toward biological phenomena would not be open to the "most ignorant and stupid peasants, nay infants, nay even brute beasts" [17, p. 118], whereas on the experiential view we would expect teleological attributions to be open to all.<sup>1</sup>

### **4.4 Conflicting Attributions**

The experiential interpretation better explains cases of conflicting attributions, that is, cases in which people have "mixed-feelings" or "are in two minds" about the teleological properties of biological phenomena. Perhaps when looking at the vine's tendril one attributes a goal to it, but at another time, or even at the same time, one attributes that it does not have a goal. If both attributions are beliefs, then it seems we must impute irrationality to otherwise ordinary people. We should only make such imputations if no other interpretation of their mental life is plausible. The experiential view faces no such difficulty here, since there is no irrationality in experiencing that-X whilst not believing that-X (or vice versa).

The proponent of the intellectual view might note another possibility – that one attribution is a belief whilst the other is some non-belief state, such as an imagining. I think that this suggestion does not account for the felt-conflict between the two attributions. If I believe that the chair on which I am sat will not levitate, but I imagine it levitating, I find nothing disconcerting or strange in holding the two thoughts at once, nor does anything about my imagining weaken my confidence in my belief. By contrast,

when I believe that the phototropism of radish seedlings is caused by a release of hormone indole-3-acetic acid, and other causal-efficient factors, but I also attribute to the seedling a phototropic goal, or that the radish seedling is designed, or that it is in longing, or that it is striving toward the light, I feel a problematic disconnection between the two attributions. Perhaps the latter attribution weakens my confidence in the former (“that can’t be all there is to it!”), or the former makes me feel that I should reject the latter as otiose.

#### ***4.5 Readiness in Following Teleological Arguments***

The experiential view better explains how we readily follow teleological arguments, such as Paley’s, when they are presented, even if we ultimately reject them. Consider an argument for the claim that dogs feel pain, made by analogy with the case of humans. In the source-domain, we find that humans yelp upon exposure to flames and withdraw their bodies from flames. In the source-domain, these behaviours are explained, or accompanied, by a feeling of pain. In the target-domain of dogs, we find the same behaviours, and so we have reason to hold that dogs also feel pain. We follow this analogy quite easily and are quite inclined to grant its conclusion. Now consider an analogy for the claim that robots exhibiting the same behaviours feel pain. I expect we find the analogy harder to follow and are much less inclined to grant its conclusion. How can this be, given that precisely the same grounds of analogy have been offered? Plausibly, the difference is that in the case of dogs, but not robots, we already attribute sentience and a capacity to feel pain to them, prior to any arguments being advanced. Likewise, the experiential interpretation readily explains the ease we find in following teleological arguments such as Paley’s, since it says that we already attribute teleological properties to biological phenomena before such arguments are offered. On the intellectual interpretation, this readiness in following is harder to account for. In this way, the experiential interpretation again better accounts for the popularity of teleological arguments. I now turn to answering objections.

### **5. Objections Answered**

#### ***5.1 “Don’t Other Factors Help Explain the Popularity of Teleological Arguments?”***

There are surely factors aside from the nature of the attributions involved that help explain the popularity of teleological arguments. Helen de Cruz and Johan De Smed argue that our assessments of teleological arguments are heavily dependent on the prior probabilities that we place on the hypotheses that might account for apparent design. If we already believe in a designer-God, the occurrence of apparent design will be regarded as offering further evidence for the designer-God, will be explained as actual design. By contrast, if we think that the existence of a designer-God is very unlikely then practically any naturalistic explanation of apparent design will be preferred [11, p. 678]. It seems right that assessments of these prior probabilities matter a lot in one’s assessment of teleological arguments. However, this sort of explanation concerns the inference from apparent design to actual design; it does not touch on why it is that people attribute teleological properties to biological phenomena in the first place, why design is ‘apparent’ in the first place. Any empirical phenomena could in principle be referred for its explanation immediately to a designer-God, but it is with respect to biological phenomena that this tendency is very pronounced, seemingly because we attribute teleological properties to biological phenomena before we start considering what to make of this in light of our prior probabilities. Although other factors can do some of the work in explaining the popularity of teleological arguments, they leave out a very important part of the explanation.

## 5.2 “Are There Other Views of the Attributions Involved in Teleological Arguments?”

Doren Recker suggests that the popularity of teleological arguments is to be explained by the power of the metaphor between artefacts and biological organisms. Recker elaborates the idea of “metaphorical reasoning” as involving “associative mappings from object to object and domain to domain” [32, p. 657], and the tendency for this mapping to morph imperceptibly from a comparative relation to an identity relation, from “*as if* a machine...[to]... *is* a machine” [32, p. 653]. Invoking dual process theory, Recker identifies metaphorical reasoning with System 1 reasoning and notes that its use is not surprising since in many contexts it “delivers results that usually are reliable” [32, p. 657]. The metaphor account provides an intellectual view of the nature of the attribution of teleological properties. Metaphorical reasoning, even though it is not always done consciously and semantically, is minimally cognitively accessible; one can reconstruct its reasoning process.

The flaw in Recker’s view is that it does not explain why we should find the artefact-organism metaphor appealing. Metaphors illuminate already-existing similarities between domains, rather than generating them. Recker emphasizes cultural factors, mentioning the way in which “all biology texts overflow with machine metaphors and analogies... This is partly why so many people find design arguments stressing machine metaphors so persuasive... Machine metaphors are among our most pervasive cultural icons” [32, p. 652]. However, it seems that we do not want to say that the influence of such cultural factors entirely accounts for the appeal of the artefact-organism metaphor, that the choice of metaphor is arbitrary, that some other metaphor could just as well have been chosen. This view is also weakened in that teleological arguments date to cultures that were not familiar with complex mechanisms like watches. Arguably, the artefact-organism metaphor is a distinctively early-modern form of teleological argument [32, p. 653], with the organism-world metaphor being more ancient [29, 508b].

Del Ratzsch advances the view that our attributions of teleological properties to biological phenomena, though beliefs, are caused by certain sensations or experiences. Ratzsch draws on Thomas Reid to suggest that “certain experiential situations, specific sensory, phenomenological content triggers particular cognitive states – *de re* beliefs, conceptions, etc. – which do not *follow* inferentially from that content” [30, p. 126]. Ratzsch’s view is intermediate between the intellectual interpretation and my own experiential interpretation. It diverges from the intellectual interpretation by saying that the attribution of teleological properties does not result from inference but arises from, is caused by, our having certain sensations or experiences. However, it diverges from the experiential interpretation by affirming that the attributions that arise are indeed intellectual states such as beliefs; on seeing some object, “we simply find that a belief in its designedness happens to us” [30, p. 132].

Ratzsch’s view is able to accommodate some of the five factors noted in the previous section, but not others. It seems able to accommodate ease of attribution, and the readiness with which we follow teleological arguments. However, since the attribution of teleological properties that arises on this view is a belief or judgment, it does not match with the impact or implausibility of these attributions. It also implies that those who have conflicting attributions about the teleological properties of biological organisms hold contradictory beliefs about this matter. Yet, it is surely not the case that everyone who looks at the Venus Fly Trap and represents it as being designed has this belief about it. As well as the imputation of irrationality, I take it that this view over-predicts felt-conflict between the two attributions, or predicts felt-conflict of the wrong sort. The felt-conflict we experience when we represent that some organism has teleological properties and that it does not, although real enough, seems more akin to the conflict we feel when we first see visual illusions like the Müller-Lyer lines – a feeling of puzzlement, of being “at sea,” of their being a disconnection or incongruous juxtaposition in our attributions, rather than a full-blown case of cognitive dissonance in which we have two contradictory beliefs.



### ***5.3 “Given the Vagueness of the Explanandum, it is Hard to Evaluate Your Explanans”***

For one thing, it is worth noting that the explanandum admits of being empirically clarified in the future to some degree: the experiential interpretation predicts that people who reject teleological arguments will exhibit certain sorts of residual attraction to it, and that people will be especially reticent to reject teleological arguments in the first place as compared with arguments that draw on more thoroughly non-experiential attributions. These are empirically investigable predictions.

Further, it is not too troubling that the explanandum is vague because there are many similar companions in guilt about which we ordinarily accept similar explanations. For instance, someone might explain the popularity and the persistence of various forms of sectarian or racial prejudice by describing them as being primarily affective dispositions, rather than being primarily beliefs. The explanandum here, that sectarian prejudice is “popular” or “persistent” or “persistent beyond its rational grounds,” is extremely vague and cannot be quantified in many respects, but nevertheless it seems that we commonly take it to be better explained by the affective disposition theory than the belief theory. Although my argument is only an inference to the best explanation, it nevertheless provides a net evidential positive for the experiential interpretation of teleological arguments.

### ***5.4 “I Grant That We Experience Some Teleological Properties When Looking at Biological Phenomena, But Not the Property of Being Designed. It Seems That an Attribution of Design is What is Needed for Teleological Arguments to be Either Good or Popular Arguments”***

For one thing, not all teleological arguments take design as their data; as noted, an Aristotelian-style teleological argument takes as its data that biological organisms have functions. Moreover, there are grounds for thinking that the property of being designed is presented in experience. Teleological properties are a diverse bunch. Likewise, it has been noted that causal properties are a diverse bunch – there is “pushing, pulling, lifting, stopping, moving, supporting, hanging from, and preventing something from happening” [36, p. 520]. The same could be said of other higher-level properties that have been suggested to be presented in experience, such as modal properties [24] or natural kinds [6]. It seems unlikely that “teleological property” is like “grue” [13] in collecting together disparate properties that together do not cut nature (or experience) at the joints. Rather, perhaps there is some family resemblance between teleological properties, or perhaps they are all variations on some ur-teleological property. Insofar as one thinks that “teleological property” is unlike “grue,” then that some sorts of teleological properties can be presented in experience supports the case for thinking that other sorts of teleological properties can. By analogy, if one allows that “pushing” can be presented in experience, it would be bizarre to think that “pulling” cannot. If it seems to you that a pitcher plant’s lid can be presented in experience as having a function it would be strange to think that it cannot be presented in experience as being designed.

Plausibly, the special resistance to thinking that the property of being designed is presented in experience is due to the conviction that whereas biological phenomena having other teleological properties is naturalistically acceptable, non-“spooky,” their being designed is spooky. These are metaphysical worries about what properties there are in the world, different than our present question about the contents of experience.

In any case, the presentation in experience of teleological properties other than design would be ample to explain the popularity of teleological arguments. Often, we do not have a clear understanding of what properties are presented in our experiences because we lack the concepts for delineating and distinguishing these experiences. By analogy, as a child one might not have understood whether one was properly feeling resentment or indignation or pique or scorn because one did not have the semantic concepts for delineating these affective states. Likewise, precisely which teleological properties it is that are presented in our experiences can be unclear because we lack clear distinctions between design,

function, purpose, goal, and so forth. Compounding this, we lack a clear grasp of which if any of these properties invites a non-naturalistic explanation. In this muddle, the basic “forness” of biological phenomena conveyed by our experiences invites the sort of explanations offered by teleological arguments – purposive forces or minds that ground or arrange the manifold forness.

## Conclusion

I have argued that the hypothesis that teleological properties are presented in experience is the best explanation of the popularity of teleological arguments based on biological phenomena. I made this case by reflecting on certain features of experiential presentations – their *ease*, *impact*, and *implasticity* – and by the way in which the experiential view allows for cases of conflicting attributions, and explains the readiness with which we follow teleological arguments.

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## Notes

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1. In discussing the experiments of Deborah Kelemen et al., Hans van Eyghen remarks that “Adults seem to abandon teleological explanations when they learn scientific, material explanations for the phenomena under investigation.... The tendency towards teleological explanations thus appears to recede when children acquire beliefs about the causal mechanisms of what was perceived as designed” [41, pp. 28-29]. As an alternative to Eyghen’s remark, I would suggest that causal-efficient explanations and teleological explanations are not explanatory schemas that are in conflict or competition with one another; they are just different explanatory schemas. In a related domain, understanding the causal-efficient explanations of significant life-events did not displace attributing them to “God” or “fate” or the like – people regularly make “conjunctive attributions” employing both schemas [23]. In this vein, in one study Kelemen reports that “humanities scholars’ performance [in making teleological attributions] did not differ from physical scientists’ performance in either the speeded or unspeeded condition” even though “scientists had significantly greater scientific content knowledge” [20, p. 1080].