

A Cooperative-Learning Lesson Using the *Objections and Replies*

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Abstract:

Descartes's *Meditations* are a staple of philosophy courses at all levels. The *Objections and Replies* to the *Meditations* are both an integral part of the original work and a fecund resource for philosophy teachers. In this article, I explain how I use excerpts from the *Objections and Replies* for an in-class cooperative-learning exercise.

### *Introduction*

Descartes's *Meditations* are a staple of philosophy courses at all levels. The *Objections and Replies* to the *Meditations* are both an integral part of the original work and a fecund resource for philosophy teachers. In this article, I explain how I use excerpts from the *Objections and Replies* for an in-class cooperative-learning exercise. I begin by discussing the relevance and utility of the material I use in the lesson.

### *Historical Background*

The first edition of Descartes's *Meditations on First Philosophy* was published in Paris in 1641. Descartes was concerned that his work be shown defensible in the face of thorough criticism, and that he deflect attacks. "I would have liked to have the approbation of a number of people so as to prevent the cavils of ignorant contradiction-mongers."<sup>1</sup> To this end, he included not just the six brief *Meditations* and introductory notes, but also a much longer collection of six sets of objections from theologians, scholars, and friends, as well as Descartes's replies to these objections. The objectors were:

1. Johan de Kater (Caterus), a Catholic Dutch theologian;
2. Various theologians and philosophers in a circle centered around the friar and mathematician Marin Mersenne;<sup>2</sup>
3. Thomas Hobbes, in his 50s, exiled and living in France, still ten years before the publication of *Leviathan*, and a year before *De Cive*;
4. Antoine Arnauld, philosopher and Jansenist theologian, a co-author of *The Port-Royal Grammar*, whose comments Descartes said he preferred;<sup>3</sup>
5. Pierre Gassendi, French atomist philosopher; and
6. Various theologians and philosophers whose comments were again collected by Mersenne.

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<sup>1</sup> Letter to Mersenne, 30 September 1640, AT III.184. Translation from Cottingham et al., vol. 3.

<sup>2</sup> The second set of objections was collected and presented by Mersenne, who handled the remaining circulation of the manuscript. Cottingham attributes the second set directly to Mersenne (Cottingham 1984 v. II: 64). Garber 1995 attributes many of those objections to Jean-Baptiste Morin.

<sup>3</sup> "I consider them the best of all" (Descartes, letter to Mersenne, 4 March 1641, AT III.331).

The second edition of the *Meditations*, published a year later in Amsterdam, included an additional, harsh seventh set of objections from Pierre Bourdin, a Jesuit priest, along with Descartes's replies.

Descartes had good reason for concern about the acceptability of his work. Galileo's condemnation by the Inquisition in June 1633 created a dangerous climate for Descartes, who was just entering his most productive philosophical period. Descartes immediately scrapped his plans to publish *Le Monde*, which presented a heliocentric system, as well as the foundations of physics and human physiology. In 1637, when Descartes resolved to publish essays on optics, geometry, and meteorology (though omitting the most controversial topics), he did so anonymously. The introductory essay, now known as the *Discourse on Method*, nonetheless provoked severe criticism. Descartes prepared for publication his consequent correspondence with Jean-Baptiste Morin, a professor at the Collège de France who later contributed indispensably to the second set of objections. Morin and Descartes, though, abandoned their plan when it became clear that their differences on many details could not be resolved.

The *Objections and Replies* to Descartes's *Meditations* are no mere auxiliary commentary to a more important, central work. Indeed, they are essential to the *Meditations* themselves. "[I]t would be illegitimate to read the *Meditations* in abstraction from the *Objections and Replies* with which they intentionally form an organic whole..." (Marion 1995: 20). Descartes scholars, of course, know the most important elements of the *Objections and Replies*, as well as the core text.

Still, students studying Descartes for the first or second time, in introductory courses, or in undergraduate surveys of modern philosophy, tend to see only very little, if any, of the *Objections and Replies*. Introductory philosophy readers and texts almost always include selections from the *Meditations*, if not the complete text. Yet, few of the standard introductory readers include selections from the *Objections and Replies*. Many popular editions of the *Meditations* include the *Discourse on*

*Method*, but not the longer *Objections and Replies*.<sup>4</sup> Even the best modern philosophy readers include only a few, sample objections.

This widespread neglect by philosophy teachers of the greater portion of the original work is understandable. Teachers in both introductory and modern philosophy courses are often too rushed to spend more time on Descartes. The larger themes (e.g. the disputes with Gassendi on empiricism and atomism) can overwhelm the undergraduate. The *Meditations* appear to stand on their own.

But Descartes's oeuvre is not the product of a solitary meditator, working alone. His exchanges with colleagues are edifying. The *Objections and Replies* were passed among the objectors sequentially, so themes can be traced through these exchanges. Caterus, Arnauld, Gassendi, and Mersenne all criticize the arguments for the existence of God. Mersenne, Hobbes, and Gassendi work on the criteria of clear and distinct ideas and the problem of Cartesian circularity. All of the objectors comment on the mind/body distinction. Descartes and his objectors repeatedly pursue and elaborate arguments first raised earlier in the *Objections and Replies*. For example, after Gassendi uses the example of a straight stick appearing bent in water to raise a worry about Descartes's account of error (AT VII.333), Mersenne returns to the example to argue that the senses, rather than reason, correct the error (AT VII.418). While scholars are able to tease out the interwoven thematic threads of conversation, the student may well find it impossible to follow a single train of argument across different objectors.

The *Objections and Replies* can be alluring to undergraduates, if presented appropriately. Witty and acerbic, they include lively and memorable examples that bring the *Meditations* into sharper focus. The lesson I describe presents small, thematically-organized portions of the objections, across objectors. I have refined the following lesson over several years, and the students generally respond favorably.

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<sup>4</sup> Hackett's *Meditations, Objections, and Replies*, edited by Ariew and Cress, contains much of the *Objections and Replies*, though omitting most of the extended exchange with Gassendi and all of the long seventh set.

*The Lesson*

I introduce my students to the *Objections and Replies* by using a cooperative-learning exercise in which students in three-membered groups adjudicate three objections and replies. This lesson is best suited to a class of at least an hour and fifteen minutes. I generally place the lesson at the end of the portion of a course in which we have been reading and discussing the *Meditations*, before the students have taken an exam or written a paper.

The materials needed for this exercise are just selections of objections and replies for the students to adjudicate. I prepare sets of objections and replies, gently edited for brevity and focus, and organized topically so that each group can focus on one theme. Another option would be to assign pre-determined selections from an assigned text. The second, third, and sixth sets of objections easily lend themselves to the exercise. Cottingham, Stoothoff, and Murdoch's single-volume collection of Descartes's work contains sufficient objections for a small group exercise. The full set of objections and replies is available in the second volume of their three-volume collection. The Ariew and Cress collection is less expensive and presents a useful selection.<sup>5</sup> I have not asked my students to prepare for the class by reading selections in advance, though one could do so. I prefer that the students discover the assigned material together, in their groups.

Good group assignments are essential to the success of any cooperative lesson. For this lesson, I prefer random group assignments.<sup>6</sup> The easiest method for random group assignments involves counting-off by the number of students in the class divided by the number of people in each group; all the ones form a group, all the twos, all the threes, etc. For the *Objections and Replies* lesson, I use a more interesting way of forming groups. I have printed and laminated pictures of Descartes and his objectors. I cut some of these pictures into three pieces, and two of them into four pieces (for classes with a number

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<sup>5</sup> I am currently preparing a ms (Marcus, In preparation B) with a complete selection, parsed into over 100 exchanges, arranged topically.

<sup>6</sup> Elsewhere, I argue for this preference. See Marcus, In preparation, A.

of students not divisible by three). In class, I mix the pieces into a basket which the students pass around, each drawing a piece, while I introduce the lesson. Groups are formed by the students finding the puzzle pieces that fit with their own. Students find their groups quickly, and they giggle a bit about the technique.<sup>7</sup>

Once groups are formed, each group either chooses a topic or is assigned one. Different groups can work on the same theme, or each group can focus on a different theme. In introductory courses, I prefer to let students choose topics that interest them. In smaller classes, I have laid six to eight piles of copies of my edited selections on a side table, with topic names prominently displayed, and allowed the students briefly to shop for a topic. In more advanced courses, a desire to cover a range of specific topics may take precedence, and the instructor may wish to assign specific themes to different groups. Once the readings for each group are distributed, the adjudications can begin.

There are three roles within each group, and three adjudications, so that each member of the group can play each role once. The roles are: 1. Objector; 2. Descartes; and 3. Facilitator/Scribe. The Objector reads the objection aloud to the group. Descartes reads Descartes's reply. Then, all the students in the group discuss the merits of the objection and reply. The Facilitator adjudicates and takes notes. During adjudication, the Objector and Descartes lobby the Facilitator and defend their positions. I urge all members of the group to seek agreement on a result. Thus, to help adjudicate, the students must both play their roles, and step out of them.

The Facilitator/Scribe transcribes a summary of the group's verdict. Not all adjudications result in a clear victor. Many of the debates are best read as referring to larger disagreements. Some exchanges introduce new concepts that require more serious reflection. For example, in response to Arnauld's objection that the argument for the distinction between mind and body would also lead to a distinction between a right triangle and figure whose side lengths are Pythagorean triples, Descartes refers to

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<sup>7</sup> See Johnson, Johnson, and Smith 1998: 2-8 for other methods of randomly assigning students to groups.

adequate and complete knowledge. These terms do not appear in the *Meditations* proper, and are typically new to my students. A group adjudicating this objection may decide that further research into adequate and complete knowledge is required to achieve a verdict. Especially in such cases, the scribe should write down questions for further research. I ask all members of each group to be prepared to present at least one of their three adjudications to the whole class at the end of the group work.

Once the first objection is adjudicated, the students within each group switch roles for the second and third adjudications. If there are one or two groups of four, some members of those groups may not play each role. In such cases, the facilitator and scribe roles can be separated. Alternatively, such groups can be assigned four objections and replies.

After each group has adjudicated each objection and reply, groups dissolve and the class comes together for discussion. In longer classes, I ask individual students to present one of their results, including summaries of an objection and reply and the group's adjudication. Instructors interested in enforcing individual accountability can easily select students at random to present their results.<sup>8</sup> At the end of the class, I normally collect the groups' transcriptions. I read them and discuss the exercise and some of the results in a future meeting. For classes needing extra motivation, the transcripts may be graded.

### *Benefits of the Lesson*

Reading excerpts from the *Objections and Replies* has allowed my students not only to understand the *Meditations* better, but also to see connections among both earlier and later philosophers. Many lasting criticisms of Descartes's work are initially voiced in the *Objections and Replies*. For example, Mersenne, in the second set of objections, immediately raises the problem of Cartesian circularity. Arnauld objects to innate ideas by considering the ideas of children and madmen. Gassendi

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<sup>8</sup> I have not yet had the opportunity and inclination to ask the students to summarize their findings in a class wiki, though such an activity, outside of class, seems well-suited to the lesson.

insists that existence is not a perfection and claims that the cogito presumes that whatever thinks exists. Studying the *Objections and Replies* allows students first-hand access to Descartes's own responses to these well-known difficulties.

Perhaps more importantly, reading the *Objections and Replies* has provided my students with insights into philosophical methodology. When my classes start working on the *Meditations*, I try to present Descartes's work charitably, seeking understanding and a good interpretation. When we get to the *Objections and Replies*, the students engage the text differently. They are no longer attempting to figure out how Descartes's work is best understood. They are now trying to figure out whether he is right. The exchanges in the *Objections and Replies* model actual philosophical discourse, including a wide range in quality of arguments, and Descartes does not always have the better ones. No longer the wise master, Descartes is one among a group of peers, all of whom have their teeth sunk deeply into puzzling questions, and are actively engaged with one another, and very human. Descartes's defensiveness emerges, especially in his responses to Hobbes and Gassendi. Gassendi's arguments against Descartes's mind/body distinction, for example, are deeper than Descartes's dismissive tone toward him indicates. By studying these exchanges, students can learn that they must take their critics seriously, rather than dismissing or insulting them.<sup>9</sup>

While learning about philosophical methods is valuable, some students can become confused by the critical freedom the *Objections and Replies* exemplify. The shift from analyzing the *Meditations* to adjudicating the *Objections and Replies* can disorient the unprepared student at the same time as it empowers the stronger young philosopher. This lesson actually makes students think, and they recognize it. As I walk around the classroom during adjudications, I have to assure the students that they are free to evaluate the arguments themselves. They can see that I am just as puzzled as they are about some of the arguments. The lesson gives me an opportunity to show, emphatically, that my authority as their teacher

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<sup>9</sup> Thanks to an anonymous referee for helping me formulate this paragraph, and the next.



does not derive from my knowing all the answers.

In the remainder of this section, as a last illustration of the benefits of this cooperative lesson, I discuss some sample content. For brevity's sake, I will consider only a few objections and replies on two themes: the ontological argument and the argument for the distinction between the mind and the body.

Many students, on their first encounter with the ontological argument, are unhappy with the inference, but have trouble finding a problem with it. The argument, especially Descartes's elegant version of it in *Meditation Five*, moves so quickly, students can not find an easy point of entry: a premise to question or a contentious assumption. Reading the criticisms from Caterus, Mersenne, and Gassendi, and Descartes's replies, the argument unfolds.

Caterus initially asks Descartes about the concept of an existing lion, arguing that such a concept contains existence essentially, but entails no real lion. He urges Descartes that even if existence is essential to the name ("title") of an object, in order to conclude that the object exists, we must first suppose that the object exists; Descartes's argument is thus circular. "All that follows is that the concept of existence is inseparably linked to the concept of a supreme being. So you cannot infer that the existence of God is anything actual unless you suppose that the supreme being actually exists" (AT VII. 99; this translation, like all that follow, is Cottingham's).

In response to Caterus, Descartes presents a useful heuristic discussion of the original argument.

Let us now take a thing, whatever this thing turns out to be, which possesses all the perfections which can exist together. If we ask whether existence should be included among these perfections, we will admittedly be in some doubt at first. For our mind, which is finite, normally thinks of these perfections only separately, and hence may not immediately notice the necessity of their being joined together... When we attend to the immense power of this being, we shall be unable to think of its existence as possible without also recognizing that it can exist by its own power. We shall infer from this that this being does really exist and has existed from eternity, since it is quite evident by the natural light that what can exist by its own power always exists. So we shall come to understand that necessary existence is contained in the idea of a supremely powerful being, not by any fiction of the intellect, but because it belongs to the true and immutable nature of such a being that it exists. (AT VII.118-9)

Mersenne, pursuing the argument, insists that Descartes must show that the nature of God is non-

contradictory, a difficult task given the contrast between the infinite nature of God and our finite minds. “You argue that the nature or essence of God cannot be conceived apart from existence. Hence, granted the essence, God really exists. It does not follow from this that God in fact exists, but merely that he would have to exist if his nature is possible, or non-contradictory” (AT VII.127).

In response to Mersenne, Descartes distinguishes between the consistency of our concepts and the possibility of a contradiction in the object itself, beyond our ken. We can determine that our concept of God is consistent, because it is clear and distinct. To deny knowledge of God because we can not apprehend clearly the consistency of the object in itself would lead to a thoroughgoing skepticism. “The upshot will be that all human knowledge will be destroyed, though for no good reason” (AT VII.151).

Unsatisfied, Gassendi anticipates Kant’s claim that existence is not a predicate. “You place existence among the divine perfections, but do not place it among the perfections of a triangle or mountain, though it could be said that in its own way it is just as much a perfection of each of these things. In fact, however, existence is not a perfection either in God or in anything else. It is that without which no perfections can be present” (AT VII.323).

Descartes does not seem to grasp the profundity of Gassendi’s criticism. “I do not see...why [existence] cannot be said to be a property just like omnipotence, provided, of course, that we take the word ‘property’ to stand for any attribute, or for whatever can be predicated of a thing. This is exactly how it should be taken in this context... To list existence among the properties which belong to the nature of God is no more begging the question than listing among the properties of a triangle the fact that its angles are equal to two right angles” (AT VII.382-3).

Look at how the argument has opened up after three short selections. In place of a quick analogy between a mountain and a valley, students now are able to consider existence by one’s own power, the natural light, fictions of the intellect, distinctions between objects and concepts of objects, consistent conceptions, and whether existence is a property. What initially seems a tight little argument is revealed to be a complicated inference. The students can find ways in.

As a second illustration of the content of the *Objections and Replies* lesson, consider some comments on Descartes's argument, in *Meditation Six*, for the distinction between the mind and body.

Let's take Descartes's argument to be as follows:

1. Whatever I can clearly and distinctly conceive of as separate, can be separated by God, and so are really distinct.
  2. I have a clear and distinct understanding of my mind, independent of my body.
  3. I have a clear and distinct understanding of my body, independent of my mind.
- So, my mind is distinct from my body

Caterus, citing Duns Scotus, complains about the major premise that the ability to conceive the mind as separate from the body does not entail a real distinction. "The formal concepts of the two are distinct prior to any operation of the intellect, so that one is not the same as the other. Yet it does not follow that because [God's] justice and mercy can be conceived apart from one another they can therefore exist apart" (AT VII.100).

In response Descartes concedes that we can separate, in our minds, things that can not really be separated: motion and shape from a body, justice or mercy from just or merciful people. But, these sorts of abstractions only apply to incomplete entities.

[The formal distinction] applies only to incomplete entities. By contrast, I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion. I deny that it has anything which belongs to the nature of a mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills and so on, even though I deny that it has any of the attributes which are contained in the idea of a body. This would be quite impossible if there were not a real distinction between the mind and the body (AT VII.120-1).

Arnauld picks up on the contrast between complete ideas of a thing and clear and distinct ideas. He argues that we can clearly and distinctly understand that a triangle is right-angled while failing to understand that the Pythagorean theorem holds of that triangle. Similarly, our clear and distinct understanding of our minds could be compatible with materialism. In response, Descartes emphasizes the importance of the minor premises of the original argument.

Although we can clearly and distinctly understand that a triangle in a semi-circle is right-angled without being aware that the square on the hypotenuse is equal to the squares on the other two sides, we cannot have a clear understanding of a triangle having the square on its hypotenuse equal to the squares on the other sides without at the same time being aware that it is right-angled. And yet we can clearly and distinctly perceive the mind without the body *and* the body without the mind (AT VII.224-5, emphasis added).

Note the opportunities for discussion here: Is Descartes correct that we can not understand that the Pythagorean theorem holds of a polygon without understanding that it has a right angle? Does the original argument work with only one minor premise? Is our understanding of our mind or our body really complete? Mersenne's objections also raise these worries. "What if [the thinking thing] turned out to be a body which, by its various motions and encounters, produces what we call thought? Although you think you have ruled out every kind of body, you could have been mistaken here, since you did not exclude yourself, and you may be a body. How do you demonstrate that a body is incapable of thinking, or that corporeal motions are not in fact thought?" (AT VII.122-3; see also Hobbes's related concerns at AT VII.172-4).

Lastly on the mind/body distinction, these selections are useful for helping students to avoid taking Descartes's arguments to establish that the body is inessential to the self. Arnauld makes the worry explicit. "It seems that the argument proves too much, and takes us back to the Platonic view (which you reject) that nothing corporeal belongs to our essence, so that man is merely a rational soul and the body merely a vehicle for the soul, a view which gives rise to the definition of man as a soul which makes use of a body" (AT VII.203).

Again, Descartes's use of concrete examples expands and illustrates the original, all-too-brief discussion in the *Meditations*. "[S]omeone who says that a man's arm is a substance that is really distinct from the rest of his body does not thereby deny that the arm belongs to the nature of the whole man. And saying that the arm belongs to the nature of the whole man does not give rise to the suspicion that it cannot subsist in its own right" (AT VII.228).

*Summary*

Well-constructed cooperative-learning exercises may be distinguished from simple group work by attention to four factors: 1. Careful distribution of students into groups; 2. Assignments of specific roles and responsibilities to each member of the group; 3. Specific and attainable objectives; and 4. A balance of emphasis on both group dynamic and individual accountability.<sup>10</sup> In this lesson, I carefully distribute students into small, random groupings. Group members have specific duties throughout the lesson. The students have clear, specific goals at all times: adjudicating all three assigned objections and replies, and making a list of questions for further research. The groups are charged with preparing all students to present one of their adjudications, and individual accountability is easily enforced.

I love working with the students on this lesson. It gives them the tools to discuss philosophy with each other in precisely the ways that I want them to continue outside of class. When the lesson comes, as I use it, at the end of an extensive treatment of the *Meditations*, most of the students have learned enough content to engage the exchanges confidently, and to have fun with it.

In addition to this enjoyable lesson, exposing students to the topics in the *Objections and Replies* is an excellent way to initiate research for essays. Thus, the exercise has the added benefit of providing the instructor with a wide range of new paper topics, helping to alleviate the tedium of reading the same themes term after term.

Besides its obvious application in modern philosophy courses, I have used this in-class exercise successfully in introductory courses, and, in abbreviated fashion, in a sophomore-level philosophy of mind course. If the particular objections and replies are chosen appropriately, they require no prior philosophical background, other than the *Meditations* themselves, and so are a good supplement to any

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<sup>10</sup> Slavin 1995 reviews a variety of cooperative-learning techniques, and presents a useful survey of classroom research on its effects.

course in which the *Meditations* are read.<sup>11</sup>

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<sup>11</sup> Thanks to four anonymous referees for helpful and encouraging comments, and to the participants in my session at the August 2008 meeting of the American Association of Philosophy Teachers in Guelph.

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