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# Aquinas and Poinsot (John of St. Thomas) on Instruments, Signs, and Teaching

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In his *De veritate*, in a question that has come to be known as *On the Teacher (De magistro)*, St. Thomas Aquinas claims that to teach is "to cause knowledge in another." Such a conclusion raises a perplexity. Attributing causality to the teacher seems to undermine the learner's independence and responsibility; but denying causality to the teacher seems to negate the debt one feels towards one's mentors and instructors. Can teachers really cause learners to learn as a builder causes a house to come to be? Can learners learn without incurring any debt of dependence on their teachers?

In this paper, I show that investigating the nature of pedagogical causality can shed light on these conundrums. To that end, I take advantage of the semiotic thought of John Poinsot (also known as John of St. Thomas), a seventeenth-century commentator on Thomas, to argue that teaching works as a kind of instrumental, extrinsic formal, or objective, cause<sup>2</sup> and, further, that thinking of the causality of teaching in that way allows one to resolve those perplexities. My argument moves through three steps. First, I consider teaching in relation to Thomas's distinction between instrumental and principal causes. In the second section, I turn to Poinsot for an account of the causality of signs that, combined with Thomas's emphasis on signs in teaching, leads to the conclusion that teaching is an example of

<sup>&</sup>lt;sup>1</sup> homo dicitur causare scientiam in alio ... et hoc est docere. Translations of the De veritate are taken from John P. Doyle's translation, found in William Ligon Wade, S.J., On the Teacher: Saint Augustine and Saint Thomas Aquinas: A Comparison, ed. John P. Doyle (Milwaukee, WI: Marquette University Press, 2013), pp. 197-226. Further references will be cited as DV, followed by question, article, and reply numbers, as appropriate, and followed by the page number from the Doyle translation; as, in the present case: DV, 11.1/p. 206. All other translations of Thomas's texts are my own.

<sup>&</sup>lt;sup>2</sup> Francis C. Wade, S.J. comes to a similar conclusion in "Causality in the Classroom," *The Modern Schoolman* 28 (1959), pp. 138-46, especially pp. 144-5. Jacques Maritain, in *Education at the Crossroads* (New Haven, CT; Yale University Press, 1943), insists on the instrumentality of teaching but does not touch on its objective causality; see especially pp. 29-33. Cyril McDonnell, in "The Causal Link Between Teaching and Learning: Some Metaphysical, Ethical, and Political Considerations," *Yearbook of the Irish Philosophical Society* (2009), pp. 43-63, also stresses the instrumental nature of pedagogical causality without further identifying what sort of causality is at stake; see especially pp. 58-61.

formal or objective causality. In a brief concluding section, I show that the objective causality of teaching points to its fundamental nature as an act of mediation.

#### Teaching as an Instrumental Cause

Thomas partially answers the question of teaching's causality by identifying teaching as an instrumental cause.<sup>3</sup> So in this section, I begin an inquiry into the causality of teaching by considering how it can fit into the concept of an instrumental cause.

Thomas's account of teaching requires the category of instrumental causality because it is meant to provide an alternative to two other defective theories. These theories attempt to explain how new forms are educed in nature, the will, and the intellect—in other words, how new sensible forms, new virtues, and new understanding arise in their respective subjects. Thomas identifies three fundamental options that have analogous applications with respect to each of these problems. One approach, which Thomas identifies with that of Avicenna, attributes all new forms to an extrinsic cause, "a Separate Agent." The other theory denies that these new forms have an exterior cause at all; instead, "they are [only] made evident by an exterior action." Thus, the two defective theories make opposite errors: the first attributes the effect solely to an extrinsic cause, whereas the second denies any extrinsic causality at all.

In a pedagogical context, according to Thomas, these two theories err in corresponding ways. The first theory explicitly excludes the activity of proximate causes, attributing all causal power to an intelligence separate from the human teacher and learner. All the teacher can do is to prepare the learner for the understanding caused in him by the Separate Agent. The second theory has a similar outcome. Reminiscent of the *Meno*, the second theory holds that the cause of learning is solely intrinsic, and that the teacher can have no more role than that of uncovering what is already there. Just as removing rust is an occasion for the iron to shine through, so the teacher's activity is no more than the occasion for the learner's already present understanding to become manifest. On neither theory, then, does the human

<sup>&</sup>lt;sup>3</sup> Summa Theologiae I.117.1 (cited herafter as ST followed by part, question, article, and reply numbers, as appropriate); DV.11.1.11/p. 209. It is worth noting that, in his discussions of teaching, Thomas seems to have in mind fairly direct interactions between an instructor and beginners (incipientes, as Thomas calls them in the prologue to the Summa). Teaching by means of questions or in a collaborative context complicates the picture, though I think Thomas's fundamental insights remain. But my focus in this paper is on that simpler, more paradigmatic case, though I make a few comments on the complications below.

<sup>&</sup>lt;sup>4</sup> DV 11.1/p. 203.

teacher—or learner, for that matter—really cause the understanding that comes to be.

Thomas objects to both theories because, on his own view, the divine goodness ensures a world in which inferior agents share in the dignity of causality. Not even the second theory really allows for such a dignity, since the removal of impediments to reveal what is already present behind them is no more than an accidental cause.<sup>5</sup> Thomas breaks through this impasse by offering a third account, taking a "middle road" based on Aristotle's thought.

Rather than characterizing the learner as completely unknowing until caused to know by a Separate Agent or as really already knowing but not knowing that he knows, Thomas describes the learner in Aristotelian terms as in "active potency" to knowing.<sup>6</sup> Because the learner possesses the power of the agent intellect within his soul, he has within him the principle that can make something only potentially known into something actually known and understood. In a similar way, a sick person has within his body the principles of recovery that the doctor can assist through the medical art so that the patient becomes again actually healthy.

Neither of the other theories recognizes this active potency for knowing in the learner. The Avicennian theory construes the learner as in a purely passive potency to knowledge, without the inner principle that can make the unknown into the known. Since the agent intellect is separate, not even the teacher has the power to make the unknown thing into the known. And so the Avicennian learner is wholly dependent on the Separate Agent for his learning. The second defective theory, on the other hand, views the learner as already actually knowing, and so eliminates the need for any cause of the motion from not knowing to knowing at all. The learner thus does not depend on a cause of knowing at all, but only accidentally on an occasion for his recognition that he already knows. The advocates of this second view, according to Thomas, "say that to learn is nothing else than to remember."7

But Thomas returns to the analogy with the healing of the body to point out that these conclusions do not correspond to our experience. Sometimes, he reminds us, our bodies heal themselves without the help of another; and sometimes they are healed with the help of another's healing art. Likewise, we sometimes come to new knowledge

<sup>&</sup>lt;sup>5</sup> In V Metaphysicae 3.13. All Latin texts are taken from the Busa edition available at copusthomisticum.org; citations from Thomas's commentaries will include book, lectio, and paragraph number from that edition. Other texts will include the customary divisions in arabic numerals, with book numbers in Roman numerals.

<sup>&</sup>lt;sup>6</sup> DV 11.1/p. 205.

<sup>&</sup>lt;sup>7</sup> Ibid., p. 204.

<sup>&</sup>lt;sup>8</sup> Ibid., p. 205.

by ourselves through a process of discovery; and sometimes we do so through the aid of a teacher. The teacher helps the learner by proposing signs of her own path to understanding, which serve the learner as "certain instruments," through which "he comes to the knowledge of things unknown." Thus, the teacher serves as instrumental cause of the learner's coming to know.

The notion of an instrumental cause is familiar enough from our ordinary experience of craftsmanship. A sculptor, for example, is the cause of a statue, but she causes the sculpture to be only through her chisel and other tools. The chisel, then is an instrumental cause of the statue. It leaves its own characteristic mark on the finished product, and it has to be included in any explanation of the statue's coming to be in the way that it has. And yet an explanation that stopped with the instrumental cause would be insufficient. Thomas describes an instrumental cause as a moved mover; it moves only because it is moved by another, the principal cause. 10 So any example of instrumental causality requires both a principal and instrumental cause.

The familiar example of the healer's art furnishes another example of instrumental causality. As the chisel is an instrumental cause and the sculptor a primary cause, so the doctor's art is an instrumental cause for the body's healing powers. And just as in the case of the sculpture, a complete explanation of the body's healing under the care of the physician cannot stop at the instrumental cause but must include reference to the primary cause. The two examples differ in at least one important way, however. Though the sculptor's marble possesses only a passive potency for the new form it receives, the body has within itself principles of healing with which the doctor can cooperate; in other words, the body has an active potency for healing.

In the pedagogical context, the principal cause, according to Thomas, is the learner, and the instrumental cause is the teacher's activity. In this way, pedagogical causality proves similar to both sculptural and medical causality. Of course, the closer parallel is with the doctor's activity, since teaching also involves a relation to an active potency. Furthermore, thinking of teaching on the model of sculpting raises the following perplexity. If the learner is the principal cause of coming to know in the way that the sculptor is the principal cause of the statue, then it seems to follow that the learner moves the teacher to her act. Just as the sculptor reduces to act the chisel's potency for cutting, so the learner must reduce to act the teacher's potency for teaching. But this seems to reverse the dependence

<sup>&</sup>lt;sup>9</sup> Ibid., p. 206.

<sup>&</sup>lt;sup>10</sup> De potentia 5.5; see also ST III.62.1 and In IV Sent. 1.1.4.2.

relation one expects to find between teacher and learner. Thomas himself recognizes that relation of dependence in its moral aspect when he observes that the learner owes the teacher a special honor as a principle of his instruction, a debt that is paid through the virtue of observance (observantia). 11 It seems unfitting for the principal cause to honor the instrumental cause as its principle; it seems, rather, that the honor should go in the other direction.

It may be rare for a sculptor to honor her chisel, but we do often honor our doctors. So the medical model seems to circumvent this puzzle. But if we look more closely, we may begin to wonder. After all, if the active potency of the body is the principal cause of one's healing, and the doctor only the instrumental cause, why should we honor our doctors?

Part of the perplexity here arises from a misunderstanding about the nature of instrumental causality. To see this, we can begin by noting a difference between the doctor's instrumentality and the chisel's. It is not quite right to say that the active potency for our bodies puts into motion the doctor's art in the same way that the sculptor puts the chisel into motion. More naturally, we might think that the doctor, by her own activity, works with our bodies, reducing their active potency for healing to actuality. Certainly, our healing—or our remuneration—might move the doctor as a final end, since she acts for the sake of one or both of those goods. But a final end causes motion only through the agency of an efficient cause. 12 And the doctor's own activity works as an efficient cause, 13 moving the body but not obviously moved by the body, at least not in an efficient sense. In contrast with the chisel, which has no intrinsic activity of its own, the doctor moves herself to act in such a way that she aids the body's movement toward its own healing.

Another example may make this clearer. Consider a blacksmith using a fire to heat iron or a cook using a fire to prepare food. In neither case, is it essential to the instrumental power of the fire that it be moved to act by the blacksmith or cook. What is essential, as James Albertson notes, is that the fire have "an effect which transcends the power of its own form." <sup>14</sup> The fact that the finality towards which the fire moves transcends its own proper ends indicates its instrumentality. As St. Thomas writes, the instrument "always attains something beyond what belongs to it according to its nature; ... otherwise it

<sup>&</sup>lt;sup>11</sup> ST III.102.1.

<sup>&</sup>lt;sup>12</sup> St. Thomas Aquinas, De principiis naturae, cap. 4.

<sup>&</sup>lt;sup>13</sup> In V Metaphysicae, 3.10. [S]anitatis causa est medicus et artifex in genere causae

<sup>&</sup>lt;sup>14</sup> James S. Albertson, S.J., "Instrumental Causality in St. Thomas," New Scholasticism 38 (1954), pp. 409-35, at p. 414.

would not be acting as an instrument." 15 So instrumental causes are moved movers because they have their activities directed to an end beyond their own proper power, and not primarily because they are put into act by another. As Albertson puts it, "They are instrumental because they are used by another agent to effect a result which is beyond their nature but proper to himself."16

So no honor is paid and no gratitude given to the chisel, because it is inert in itself, with no proper movement of its own. But the doctor has her own proper movement and, unlike the fire, she freely chooses to engage it. Consequently, it makes sense to give honor and thanks to the doctor for the part her willed action played in achieving the end, even if that part was merely instrumental. In the pedagogical case, the actual understanding of the learner is an effect beyond the power of the teacher's activity; but the learner puts that activity, operating in its proper modality, to the end of his own understanding. Just as the patient owes the doctor thanks and honor, so does the learner acquire a debt to the teacher, since the teacher's own proper activity serves the learner as an instrument—and the quality of the instrument plays a significant role in the effect achieved by the principal cause. This account of instrumental causality, then, goes a long way toward resolving the perplexity with which we started.

### Teaching and the Action of Signs

But despite their many similarities, a disanalogy between the medical case and the pedagogical one remains, and addressing it will help to provide more depth and specificity to this resolution. Both healing and teaching feature instrumental causality, with an active potency in the patient or learner. As noted above, healing includes a role for final causality, and teaching does as well. The teacher acts for the sake of the learner's coming to know, and would not engage the learner at all without taking that end as a directing possibility. Likewise, the learner's knowledge will be like that of the teacher, and so the teacher's understanding also serves as a final cause for the learner's acting. The understanding of each, then, serves as a goal for the activity of the other. But the doctor's activity causes efficiently, inducing new forms from matter by cooperating with the body's active principle. And here we come to an apparent difference, since the teacher does not seem to produce the learner's understanding efficiently. So how does the teacher's teaching cause the learner's

<sup>&</sup>lt;sup>15</sup> In IV Sent., 1.1.4.1; quoted in and translated by Albertson, "Instrumental Causality,"

<sup>&</sup>lt;sup>16</sup> Albertson, "Instrumental Causality," p. 419.

learning? Attending more precisely to the nature of the act of teaching will help to answer this question.

Thomas describes that act in this way:

[O]ne man is said to teach another inasmuch as he makes manifest by signs to that other that course (decursum) which he effects in himself by natural reason, and in this way the natural reason of the student, through what is proposed like this to him, as through certain instruments, comes to the knowledge (*cognitio*) of things unknown.<sup>17</sup>

For our purposes, the key element in this description is the focus on signs. The act of teaching takes place in the medium of signs; the teacher hopes to mediate the reality to be known through her use of signs. Thomas reinforces this point later, when he writes, "[A] man who teaches externally ... is in some way the cause of an intelligible species, insofar as he proposes to us certain signs of intelligible intentions which our intellect receives from those signs and stores (recondit) in itself."18

Thomas describes two different ways teachers help their students to learn, both of which require the mediation of signs. 19 Sometimes, says Thomas, teachers provide less universal or even concrete examples of the more universal truth they want to communicate. In this case, they employ what Thomas calls "aids or instruments" (auxilia vel instrumenta), such as sensible examples, likenesses, or opposites (sensibilia exempla, vel similia, vel opposita).<sup>20</sup> Think of a math teacher using manipulables, or a philosophy teacher reaching for an illustration, or a biology teacher contrasting the function of one organ with that of another, already known. At other times, the teacher works by more explicitly presenting the premises and reasoning that lead to the conclusion the learner needs to know. In either case, whether teachers use words or examples, these strategies make present to the learner's understanding something beyond themselves; in other words, the elements the teachers use act as signs. So the question of the causality proper to the act of teaching can only be approached by considering the causality of signs.

Thomas gives an indication of how to consider this question when he writes, "[s]igns are not what is proximately effective of science, but reason, as has been said, passing from principles to conclusions."21 If the signs do not serve as an efficient cause of knowledge, then what do they do? Thomas provides a further clue: "[F]rom

<sup>17</sup> DV 11.1/p. 206.

<sup>&</sup>lt;sup>18</sup> DV 11.1.14/p. 210. See also Vivian Boland's discussion in St Thomas Aquinas (Continuum Library of Educational Thought, vol. 1; London and New York: Continuum, 2007), pp. 49-50.

<sup>&</sup>lt;sup>19</sup> ST I.117.1.

<sup>&</sup>lt;sup>20</sup> Ibid.

<sup>&</sup>lt;sup>21</sup> DV 11.1.4/p. 207.

sensible signs, which are received in a sensible power, the intellect receives intelligible intentions, which it uses in order to cause science in itself."<sup>22</sup> Thomas compares the working of signs in this respect with the role played by external things in our coming to know. "[F]rom them both," he writes, "the agent intellect receives intelligible intentions,"<sup>23</sup> which it then "inscribes in the possible intellect."<sup>24</sup> These intelligible intentions or forms are not the efficient cause of knowledge but its extrinsic formal cause. That is to say, these forms are not the structure of the mind before knowing but the structure the mind receives from the object of its knowing act. Thus, insofar as the teacher works through signs, the act of teaching seems to stand to the learner's knowledge in the line of formal causality, as a principle of its being this kind of thing rather than simply of its coming to be.

We can state this result more precisely with the help of Thomas's commentator, John of St. Thomas, also known as John Poinsot. Poinsot's Tractatus de Signis constitutes the most complete and significant contribution to the study of signs before the last century—in fact, according to his English translator and editor, John Deely, "the first systematic semiotic"<sup>25</sup>— and Poinsot saw his work as continuing the themes and insights of St. Thomas's, including those found in Thomas's *De magistro*. <sup>26</sup> His analysis of the action of signs illuminates the place and significance of formal causality in the act of teaching.

Poinsot identifies a "fourfold cause of knowledge."27 The "productive or efficient cause" actually "elicits an act of knowledge." Poinsot gives such examples as "the eye, the ear, [and] the understanding." Since form makes a thing to be the kind of thing it is, the formal cause is "the awareness itself" of the object of knowledge. That is to say, an act of knowing is precisely an act of knowing because it actualizes some potency for awareness (notitia). "The sight itself of the stone or of the man," respectively, may differ in object; but each is equally an act of knowing, because through it one becomes aware of a stone, a man, or something else. But any act of awareness is always an awareness of something, so the object itself, the "very thing which is known," constitutes a third cause. Finally, the "instrumental cause is the means by which the object is represented to the [cognitive] power." The teacher's signs make present the

<sup>&</sup>lt;sup>22</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> DV 11.1.11/p. 209.

<sup>&</sup>lt;sup>25</sup> See his editorial comment, in John Poinsot, Tractatus de Signis: *The Semiotic of* John Poinsot, 2nd ed., trans. and ed. John N. Deely (South Bend, IN: St. Augustine.s Press, 2013), p. 36.

<sup>&</sup>lt;sup>26</sup> Ibid., pp. 194 and 197.

<sup>&</sup>lt;sup>27</sup> Ibid., pp. 25-26.

object of knowing to the learner, and so the objective and instrumental causes of knowledge provide the key for understanding the nature of pedagogical causality.

Objective causality, of course, depends on the object, and Poinsot distinguishes objects into three categories. Objects may be either "stimulative" (motivum), terminative, or both; but all share a common mode of causality. A merely stimulative object moves a power to an awareness of an object other than itself, as a picture moves its viewer to an awareness of the depicted subject. A picture of the emperor, according to Poinsot, "moves the power to know," not just canvas and pigment, but the emperor. A merely terminative object is the thing known—in Poinsot's example, the emperor. Sometimes the same thing both moves the power to know and is the ultimate object of knowledge, as when someone sees a wall. In each of these cases, the act of the knowing power is modified by an extrinsic object to become an awareness of this thing, giving this particular act of knowing its own "specific character." [A]nd this," writes Poinsot, "is reduced to the category of an extrinsic formal cause not causing existence, but specification." In other words, "the very rationale of an object as such is to be the act and form of a power."29 Poinsot quotes Thomas to the same effect: "an object is not a matter out of which, but concerning which, and it has in a certain way the rationale of a form, inasmuch as it specifies."<sup>30</sup> Objects, then, serve as formal rather than efficient causes.

A sign is "that which represents something other than itself to a cognitive power."31 Consequently, a sign makes an object present to the knowing power; it is an instrumental cause of knowledge. Insofar as it simply serves to make the object present, it shares in the object's causality and so operates in the manner of a formal cause. Rather than explaining why a knowing act comes to be, the sign explains why the act constitutes knowledge of this rather than that. It follows then, that, the act of teaching is not an efficient but a formal cause, since it consists in the use of signs. More precisely, teaching is an instrumental, objective cause, because it gives form to the learner's understanding by providing a sign that mediates between the learner's act and the truth he comes to know.

Passages from Thomas's commentaries on both the *Physics* and the Metaphysics, however, raise an immediate difficulty for this conclusion. In those texts, Thomas summarizes Avicenna's fourfold classification of efficient causes, including among them the advising cause (causa consilians). In the Physics commentary, he explains, "The

<sup>&</sup>lt;sup>28</sup> Ibid., p. 166.

<sup>&</sup>lt;sup>29</sup> Ibid., p. 202.

<sup>&</sup>lt;sup>30</sup> Ibid., p. 174, quoting *ST* I-II.18.2.2.

<sup>&</sup>lt;sup>31</sup> Ibid., p. 25; see also p. 203.

one advising is, in those things which act from purpose, that which gives to the agent the form through which it acts. For one who acts from purpose acts through his knowledge, which the advisor gives to him."<sup>32</sup> Like the advisor, the teacher provides a form for the learner's knowing; so one might think that Thomas's comments here imply that teaching is an efficient cause.<sup>33</sup>

But two considerations temper that conclusion. First, the advice of the *consilians* is directed toward practical action, but the teacher's use of signs is directed to scientific knowing.<sup>34</sup> Unlike practical action, scientific knowing does not involve alteration but relation, <sup>35</sup> so efficient causality does not play the same kind of role in it as it does in all cases of motion.<sup>36</sup> A mirror, for example, is not changed from one image to another, but rather, while remaining the same, a new image arises in it due to its relation to a new object. Likewise, the mind is always disposed—unless there are impediments—to the reception of new forms and its relation to a new object issues in such a form without an essential change in the mind itself.<sup>37</sup>

Second, the relevant text in the commentary on the *Metaphysics* makes clear that not all of the members of this fourfold classification are properly called efficient causes. Thomas says of the perfecting cause simply that "it is called an efficient cause." When he provides the example of a wood or stonecutter as an example of a disposing cause, however, he remarks that such a one "is not properly called an efficient [cause]."<sup>39</sup> Even the assisting cause is described in contrast to the "principal agent." Finally, Thomas says of the advising cause that it 'differs from the principal efficient [cause], insofar as it gives

<sup>&</sup>lt;sup>32</sup> In II Physic., 5.5.

<sup>33</sup> Shane Drefcinski, for example, argues that "the moral educator would seem to be an efficient cause of the student's behavior in much the same way that a person who gives advice is an efficient cause of the advisee's subsequent action" ("What Kind of Cause is Music's Influence on Moral Character?" American Catholic Philosophical Quarterly 85 (2011), pp. 287-96, at p. 294.

<sup>&</sup>lt;sup>34</sup> DV 11.1/p. 202-3. In this respect the moral educator Drefcinski considers in the previous note is not engaged in the same task as the teacher of the *De magistro*. For more on the relation between consilium and purposeful action, see Kevin White, "Aquinas on Purpose," Proceedings of the ACPA 81 (2008), pp. 133-47, especially pp. 136-8.

<sup>&</sup>lt;sup>35</sup> In VII Physic., 6.6-9.

<sup>&</sup>lt;sup>36</sup> See In V Metaph., 2.8. Ad hoc autem genus causae (i.e., efficient cause) reducitur quicquid facit aliquid quocumque modo esse, non solum secundum esse substantiale, sed secundum accidentale; quod contingit in omni motu.

<sup>&</sup>lt;sup>37</sup> The mirror analogy is from *In VII Physic*. 7.9. See also 7.6-8 for the rest of the relevant argument.

<sup>&</sup>lt;sup>38</sup> In V Metaph., 2.4. Perficiens autem dicitur causa efficiens.

<sup>&</sup>lt;sup>39</sup> Ibid., 2.5 l. ille, qui dolat ligna et lapides, dicitur domum facere. Et haec non proprie dicitur efficiens domus

<sup>&</sup>lt;sup>40</sup> Ibid., 2.6. Agente principali.

a goal and form to the agent."41 So rather than defining advising or teaching as an efficient cause, this passage distinguishes the giving of forms from efficient causality properly so called, while at the same time recognizing the influence intellectual forms play in purposeful action. Strictly speaking, the conclusion arrived at through Poinsot's semiotic analysis stands: the act of teaching, because it is an act of signifying, is an objective cause, working through a kind of extrinsic formal causality.

This conclusion finally resolves the perplexity we have been considering. While the learner does not depend on the teacher as the proximate cause of his act of understanding, he does depend on the teacher as the specifying cause of that act. Poinsot says, "we distinguish between something stimulating through the mode of exercise and through the mode of specification."42 To stimulate or move through the mode of exercise is to bring about the existence of something; but to move through the mode of specification is to determine the character, specification, or definition of a thing. The latter is reduced to the category of extrinsic formal causality; the former belongs to efficient causality.<sup>43</sup> The learner's own act of understanding brings into existence his awareness of the previously unknown thing, but the teacher's use of signs determines the character of that awareness. Poinsot explains, "[I]n the case of our understanding, it is the agency of the understanding that effectively produces specifying forms."44 He quotes Thomas to the same effect: "signs are not the proximate cause productive of knowledge, but the understanding itself (ipse intellectus) is the proximate productive cause."45

So, though the learner is the principal efficient cause of his own understanding, he still depends on the teacher for the character of that understanding. That dependence suggests the appropriateness of the virtue of observance, and Poinsot's remark that an object relates to a power "according to the relation of measure and measured, which is not reciprocal,"46 confirms it. The teacher is not the principle of the learner's act of understanding in itself, but she is the principle of the character of that learning; and that asymmetrical dependence is enough for an application of the virtue of observance. The fact that the learner is the principal cause in the order of exercise and the teacher serves as an instrumental cause in the order of specification

<sup>&</sup>lt;sup>41</sup> Ibid., 2.7. Consilians autem differt ab efficiente principali, inquantum dat finem et formam agendi.

<sup>&</sup>lt;sup>42</sup> Ibid., p. 169.

<sup>&</sup>lt;sup>43</sup> Ibid., p. 172.

<sup>&</sup>lt;sup>45</sup> DV, 2.1.4, cited in Poinsot, p. 199.

<sup>&</sup>lt;sup>46</sup> Poinsot, p. 173.

preserves both the learner's own agency and the dependence we all acknowledge we have towards our teachers.

But Thomas also says that "a teacher excites (excitat) the intellect to know those things which he is teaching."<sup>47</sup> To excite is to stir up, to rouse, to stimulate. 48 So one might well think that Thomas here places the teacher's act in the order of efficiency. In any event, it does seem to be the case that we need our teachers to spark us, to move us to the activity that leads to new knowledge. So an objector might well think that Thomas's own observations imply not a merely objective causality for teaching but an efficient one as well.

Poinsot provides two responses to this objection. First, he argues that an objective cause "is stimulating or moving as regards specification, not as regards exercise."<sup>49</sup> In support of his claim, he cites St. Thomas: "a power ... of the soul can be in potency in two ways, in one way as regards acting or not acting, in another way as regards acting in this way or that."50 The power to know, for example, is unintelligible except as a power to know this truth or that one. So the learner needs to be moved not only to know but to know this rather than that. Put in other words, one can say that the learner needs not only to exercise his power of understanding but to do so in some particular way.<sup>51</sup> Powers are distinguished by the different acts towards which they dispose the agent; and acts are distinguished according to the different objects they take as their terms. So the object moves a power to this act by providing its form; the object moves, then, precisely as an extrinsic formal cause. Poinsot explains, "even to elicit [an act of such or such a kind] the power is not sufficiently determined to a specific kind of act until it is determined or moved and completed by an object."52 So one has to understand the claim that a teacher excites a learner to know objectively rather than efficiently.

But we can construct a second kind of response from Poinsot's reflections as well, one that takes seriously a kind of efficient causality that accompanies the objective causality of the teacher's use of signs. Poinsot remarks on the "excitative energy in a person's voice" (illa virtus excitativa in voce), which a teacher can employ to move us to "attend to the signification and be moved by that signification." 53

<sup>&</sup>lt;sup>47</sup> DV 11.1.12/p. 209.

<sup>&</sup>lt;sup>48</sup> See Roy J. Deferrari, A Latin-English Dictionary of St. Thomas Aquinas: Based on The Summa Theologica and Selected Passages of His Other Writings (Boston, MA: Daughters of St. Paul, 1986), s.v. excito.

<sup>&</sup>lt;sup>49</sup> Poinsot, *Tractatus*, p. 171.

<sup>&</sup>lt;sup>50</sup> ST I-II.9.1, cited in Poinsot, p. 171.

<sup>&</sup>lt;sup>51</sup> See *ST* I-II18.2 and 5 and *DV*, 15.2.

<sup>&</sup>lt;sup>52</sup> Poinsot, p. 172.

<sup>&</sup>lt;sup>53</sup> Ibid., p. 198.

In so doing, the teacher's voice—or, one supposes, other modes of physical or culturally mediated<sup>54</sup> interaction—moves the learner in the line of efficient causality. It brings about not just a specific kind of act, but the exercise of attention itself. But this efficient power is accidental and "superadded" to the teacher's signifying act; the latter remains objective in its own proper operation, and works in the line of formal causality, specifying the structure of the act rather than serving as the principle of its coming to be. 55 As Poinsot notes, "excitation, as it functions effectively (whether morally or physically), is not the very act of signifying, and does not proceed effectively from the sign in signifying."56 So, speaking strictly, the teacher's acts cause objectively through the medium of the signs she employs, determining the learner's knowing to a new knowledge of this truth, rather than that. But accidentally, by some means such as her vocal inflections, the teacher can move the learner efficiently to attend to the signs the teacher offers.

This response harmonizes with a discussion in Thomas's Expositio Peryermeneias. There Thomas distinguishes between forms of speech that signify the order within one's mind and those that signify the order by which one directs another.<sup>57</sup> Among these, he mentions "vocative" forms of speech (vocativa oratio), by which one directs another to attend with the mind (ad attendendum mente), and "interrogative" forms of speech (oratio interrogativa), by which one directs another to respond with the voice (ad respondendum voce). He suggests, then, that the uses of direct address and questions in teaching are excitative, rather than objective, in their causality.<sup>58</sup> This insight, present in both Thomas and Poinsot, preserves our sense of our teacher's motive power with respect to our learning, while

<sup>&</sup>lt;sup>54</sup> See Deely's comment on *quid morale*, Poinsot, p. 199, n. 13.

<sup>&</sup>lt;sup>55</sup> Poinsot, p. 201.

<sup>&</sup>lt;sup>56</sup> Ibid., p. 199.

<sup>&</sup>lt;sup>57</sup> Expositio Peryermeneias, I.7.5.

Bl. John Henry Newman, in the opening pages of An Essay in Aid of a Grammar of Assent, offers another view on the significance of questions. He maintains that a question is such a way of "holding a proposition" as to "imply the possibility of an affirmative or negative resolution of it" ([Notre Dame, IN: University of Notre Dame, 1979], p. 25.) On this account, a question structures the mind's awareness so that it is aware of a possibility. Now consider a case in which a teacher poses a question to the learner, who then returns with an answer that provides new knowledge for the teacher. This kind of learning combines elements of teaching and discovering but ultimately depends on the teacher's question working as an objective cause with respect to the learner, who then takes up the role of the teacher by becoming an objective cause in return. As students approach the maturity of knowledge found in their teachers, one might well expect that this kind of collaboration and turn-taking would increase in frequency. But rather than undermining the Thomistic account I have been developing, it simply shows its application in a new context.

recognizing at the same time that our learning is fundamentally ours, and brought about by our own act of understanding.<sup>59</sup>

#### Conclusion: Teaching as Mediating

Poinsot's insights on the action of signs prove fruitful for reflection on teaching in at least two ways. First, as I have argued, they provide a resolution of a perplexity that arises from Thomas's account of the causality of teaching. Taking teaching as an objective cause, in the line of extrinsic formal causality, rather than as an efficient cause, allows us to recognize in due proportions the learner's own agency in his learning and the learner's dependence on the teacher.

But second, the objective causality of teaching also makes clear its basic nature: teaching is always an act of mediation, in which the teacher serves to join in union with the learner's act of understanding the reality which has been hitherto unknown. The teacher's signs are a foundation for a new relation between the learner's mind and the world about which he seeks knowledge. At the same time, the teacher's use of signs provides a foundation for a new relation between teacher and learner, binding them together in the good of a shared understanding, and thus laying the ground for a particular kind of friendship. Thus, the pedagogical use of signs joins together the teacher, the learner, and their common world.

If Poinsot is right about the objective causality of signs, then this mediatorial character of education manifests itself in any form of teaching. Teaching occurs in a wide variety of contexts, in which teacher and learner play diverse roles: the master and the apprentice; the Socratic midwife and the inquirer; the proclaimer of the Gospel and the hearer; even the witness and those before whom testimony is borne. But in each one of these cases, the teacher works through signs, whether words or examples or even deeds taken as examples. 60 And so in each one, the teacher must understand himself as a mediator, serving both the learner and the truth he seeks to bring together.

By way of contrast, Poinsot's insights also put to question some attractive but misleading pictures of pedagogy that represent the teacher as an efficient cause or as no cause at all. A teacher is not a banker, depositing knowledge in the learner's mind.<sup>61</sup> Nor is a teacher an

<sup>&</sup>lt;sup>59</sup> Poinsot, p. 199.

<sup>&</sup>lt;sup>60</sup> Showing that the conclusions of this paper extend to all these diverse modes of teaching would require one to move beyond the De magistro's focus on scientific knowing and so beyond the limits of this paper; but I think a good case can be made for that

<sup>61</sup> The banking metaphor is from Paulo Freire, Pedagogy of the Oppressed (NY: Continuum, 1970; 30th anniversary edition, 2000), pp. 71-86; see also DV, 11.1.6/p. 208.

assembly line worker, producing skilled labor. Nor, again, is the teacher an engineer, constructing knowledge for—or even with—the learner. Nor is a teacher simply an environmental arranger, cultivating a context in which the learner naturally unfolds the actual knowledge he already has. Instead, the teacher must recognize her role as both humble and exalted: not a producer but a mediator, serving both the learner and the truth, so that what the learner could not come to know on his own, or could come to know only with difficulty, comes to be the very shape and form of the learner's understanding.<sup>62</sup>

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<sup>&</sup>lt;sup>62</sup> I presented an earlier draft of this essay to the Kenrick-Glennon Seminary faculty colloquium, and I am grateful for the helpful suggestions the participants offered, especially those of John Finley and Lawrence J. Welch.