

Sebastián Izquierdo's (1601–1681) Theory of Priority

ABSTRACT: *The Spanish philosopher Sebastián Izquierdo was a luminary of seventeenth-century scholasticism. In his main philosophical work, *Pharus scientiarum*, Izquierdo claims to be the first to provide a systematic analysis of the notion of priority. Izquierdo is not the first to attempt an analysis of priority, but his treatment is original and rigorous. Izquierdo distinguishes between accidental and essential priority. This distinction crosscuts his distinction between relative and absolute priority. Izquierdo also recognizes four types of absolute priority: priority of duration, priority of origin, priority of nonmutual connection, and priority of worth. In this article I explain Izquierdo's various priority relations, their formal properties, and how they all cohere in a general theory of priority.*

KEYWORDS: Sebastián Izquierdo, early modern scholasticism, priority, grounding

Priority is said in many ways. Well, perhaps not, but priority is certainly said in many contexts. We say that Obama was prior to Trump. The number 1 is prior to the number 2. The first street on the left is prior to the second. The engine is prior to the caboose. The parts are prior to the whole. Socrates is prior to {Socrates} and to his snub nose. The match's being struck is prior to the match's being lit. Socrates's running is prior to the truth of 'Socrates is running'. The fact that it causes pain is prior to the fact that it is wrong. And so on. But what exactly is priority? Is there just one concept of priority, or many? If just one, how can we use the one concept in so many different ways? If many, why do we use the one word, *prior*, in all the different contexts?

Recent work in metaphysics has featured several discussions of *ontological* priority (see, for example, Schaffer 2009, Rosen 2010—it is widely assumed that metaphysical grounding is or makes for ontological priority). As far as I know, there is no comprehensive treatment of priority in general in the contemporary literature, but there is a comprehensive treatment of priority in general in the historical literature. Of course, Aristotle comes to mind (*Categories* 12; *Metaphysics* 5.11), as does Augustine (*Confessions* 12.40), among others, but I am thinking of the seventeenth-century scholastic philosopher, Sebastián Izquierdo (1601–1681).

Although Izquierdo is virtually forgotten nowadays, he was an important figure in sixteenth- and seventeenth-century Iberian scholastic philosophy. This under-researched movement in the history of philosophy is responsible for the likes of

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Francisco Toledo, Pedro da Fonseca, Luis de Molina, and Francisco Suárez, among others. (There is a growing body of literature on this fascinating but nearly forgotten movement in the history of philosophy. See, for example, Knebel 2000; Penner 2012; Novotny 2009, 2013; Embry 2015; Heider 2010, 2016. For a far more comprehensive bibliography of early modern scholasticism, see Jacob Schmutz, *Scholasticon*, <http://scholasticon.ish-lyon.cnrs.fr>. Pioneers of the study of early modern scholasticism in North America include John Doyle and Jorge Gracia.)

In the seventeenth century, Izquierdo was known for his 1659 *Pharus scientiarum* ('Lighthouse of the Sciences', hereafter cited as *PS*, by disputation, paragraph, page, and column), in which he employs the 'geometric method' to articulate and defend a 'universal art of acquiring knowledge'. (For an overview of Izquierdo's project, see Ceñal 1942 and Schmutz 2006.) As Schmutz notes, *PS* establishes Izquierdo as one of the most original of the early modern scholastic philosophers in terms of his philosophical aims, methods, and views (Schmutz 2006). (For targeted studies of Izquierdo's views, see Ceñal 1974, Di Vona 1994, Fuertes Herreros 1981, and Schmutz 2009. The *Pharus scientiarum* is also briefly discussed in Rossi 2000: 140–42.) Izquierdo is perhaps best known (when known at all) for his detailed theory of combinatorics (*de combinatione*; *PS* 29, 319–61), which Leibniz reports as an influence on his own *De arte combinatoria* (Ceñal 1942: 135). Izquierdo also published a two-volume *Opus theologicum* (1664 and 1670, hereafter cited as *OT*, by volume, page, column, and paragraph number) and a guide to spiritual exercises that was translated from Spanish into Latin, French, Portuguese, and Italian. We know little about Izquierdo the man except that he taught philosophy and theology at Alcalá, Murcia, and Madrid, as well as filling various administrative posts (Backer and Backer 1893: 699).

Disputation 15 of the *Pharus scientiarum* is about 'the order or arrangement of beings', and most of that seventeen-page disputation is dedicated to the analysis of priority (here and elsewhere in this article, all translations from the Latin are the author's). Izquierdo notes that the notion of priority shows up in a number of early modern scholastic debates. Indeed, one may find the notion of priority at work in debates about: how a cause is prior to its effect (Suárez, *Disputationes metaphysicae* [hereafter cited as *DM*, by volume, disputation, section, and paragraph number] 26.2); whether and how some persons of the Trinity are prior to others (*DM* 12.1.10); whether some divine attributes are prior to others (*OT* 1:79a153); whether free choice is compatible with determinism (here the notion of antecedent necessity is explained in terms of priority; *OT* 2:251b293–252a294); and how to make sense of a final cause being both a cause of and an effect of, both prior to and posterior to, the action that brings it about (*DM* 23.1).

In spite of the importance of priority in philosophy and theology, Izquierdo notes that most authors do not understand priority because 'as far as I know no one has treated priority explicitly and generally—until now' (*PS* 15.1, 1). Izquierdo's discussion is certainly not the first 'explicit' discussion of priority. In Izquierdo's own time, Francisco Suárez dedicated a section of his *Disputationes metaphysicae* to the question of how a cause is prior to its effect (*DM* 26.2), and this question becomes standard for Jesuit philosophers after Suárez. But most of these

discussions are aimed at explicating efficient causal priority rather than constructing a general theory of priority. Izquierdo is self-consciously doing something new: attempting to give a general theory of priority. This includes explaining the differences between various priority relations, the formal properties of priority relations, how priority relations can be ‘chained’ and ‘mixed’, and how various priority relations count as instances of one phenomenon. (I speak of ‘priority relations’ throughout this article, but I do not thereby mean to commit Izquierdo to anything ontologically heavyweight. Izquierdo himself tells us that priority relations are relations of reason of a certain sort [PS 15.30, 6a].)

The benefits of understanding Izquierdo’s theory of priority are historical as well as systematic. Early modern scholasticism is one of the richest movements of communal, systematic philosophy prior to the twentieth century, and while we are living through a renaissance of interest in the philosophy of Francisco Suárez, we know almost nothing about the broader philosophical milieu of which he was a part. Investigating Izquierdo’s theory of priority will provide a sense of the interests, methods, style, and creativity of early modern scholasticism. This article will also be of interest vis-à-vis contemporary discussions of ontological priority. Izquierdo nicely maps the conceptual space for a theory of priority, and in my view his theory provides a good running start on a theory of priority.

Before moving ahead, I must note a feature of Izquierdo’s discussion that might strike contemporary metaphysicians as problematic. Almost from the beginning Izquierdo makes free use of ‘grounding’ (*fundamentum*, *fundatur*) and cognate locutions like ‘by reason of’ and ‘in virtue of’ in order to explain how various priority relations are related. Izquierdo uses these locutions without comment or explanation throughout the *Pharus scientiarum* (PS 12.42, 298a; 3.43, 116b; 14.5, 393b; 14.5, 393b; 6.29, 151b). I follow Izquierdo in assuming these locutions make sense, and I explain how they fit into his theory of priority in the appropriate place.

I. Jesuit Discussions of Priority

As mentioned above, Izquierdo was not the first—not even the first Jesuit—to discuss priority. After Suárez it became standard in Jesuit philosophical texts to address the question how a cause is prior to its effect. Although the question was standard, the resulting discussions varied widely in both the views espoused and the technical terminology used to articulate those views. (It should also not be assumed that seventeenth-century technical terminology has the same meaning as that of fourth-century BCE technical terminology.) I do not wish to get bogged down in explaining this debate in technical detail, but a brief overview will help to situate Izquierdo’s discussion in its contemporary context. The following overview relies on Suárez (*DM* 26.2), Hurtado de Mendoza (1624: 239b–246b), Francisco Peinado (1680: 221b–235a), Francisco Oviedo (1651: 196a–199a), Thomas Compton Carleton (1649: 284a–287b), and Rodrigo de Arriaga (1669: 394b–397b). These represent some of the most influential scholastic philosophers of the seventeenth century.

Izquierdo's near predecessors standardly distinguish between three (or four) kinds of priority. First is temporal priority: A is temporally prior to B when A precedes B in time. (This circular explanation is not exactly helpful, but that did not seem to bother any of the Jesuits). Some authors also recognize rational priority: roughly, A is rationally prior to B just in case the concept of A is more universal than the concept of B, or A is thought of as being somehow responsible for B (Hurtado 1624: 239b124–240a126). Third, there is a priority relation that is often called 'priority *a quo*' or 'priority of origin'. This sort of priority obtains between anything that produces and that which it produces, the prime example being the first person of the Trinity vis-à-vis the second and the first and the second together vis-à-vis the third (*filioque* and all). It was widely agreed that priority of origin obtains between a cause and its effects. (An exception is Hurtado, who claims that priority of origin excludes priority of nature, which is efficient causal priority [1624: 239b123]). But Jesuit authors were also committed to the idea that there was a distinctive form of priority that obtains between causes and their effects and *not* between persons of the Trinity. Why they were committed to this idea is not entirely clear, but they seemed to have thought it important to maintain that, in the Trinity, the Father is prior to the Son, but the Father is not *causally* prior to the Son (since the Father does not cause the Son). Given this commitment, the task is to explain this fourth, causal sort of priority, which is often called 'priority *in quo*' or 'priority of nature', and which obtains between a cause and its effect *qua* cause and effect.

There was absolutely no consensus on how to analyze causal priority or 'priority by nature'. Following Suárez (*DM* 26.2), who takes a cue from Aristotle's *Metaphysics* 5.11, most Jesuit authors attempt to analyze causal priority in terms of ontological dependence. Ignoring the subtle differences between the various instantiations of this view, the general idea was that A is causally prior to B just in case A can exist without B, but B cannot exist without A. (See Hurtado 1624: 240a127; although this view gets attributed to Suárez, it should be noted that Suárez recognized at least three varieties of priority of nature [*DM* 26.2], only one of which is formulated in terms of dependence [*DM* 26.2.18].) As Rodrigo de Arriaga points out, defining causal priority solely in terms of ontological dependence is problematic, since an effect can exist without its cause (1669: 395a126–28). It is in light of this difficulty that the ontological dependence view is subject to various modifications and accretions.

Izquierdo's discussion of priority can be seen as taking the foregoing framework as a starting point and making several original contributions. As I show here, Izquierdo recognizes far more than four kinds of priority. He also abandons the idea that there is a distinctive form of causal priority that does not apply to the persons of the Trinity. But he endorses the idea, implicit in his predecessors' notion of causal priority, that ontological independence makes for a kind of priority. So Izquierdo endorses both priority *a quo* (or priority of origin) and priority *in quo*, but he assigns them different work than his predecessors did. He also provides a novel theory that explains how all of this hangs together, and that theory centers on the idea of a series.

II. Orders and Series

As mentioned above, Disputation 15 of the *Pharus scientiarum* is on order (*De ordine*). The concept of order is broader than the concept of priority, but priority is what Izquierdo is really interested in. To get to priority, he begins by distinguishing between two kinds of order. Things can be ‘ordered according to a series’ or ‘ordered according to proportion’. The order of proportion is responsible for beauty, harmony, analogy, consonance, and temperament. But Izquierdo quickly sets aside order of proportion to focus on the order of series.

A. Series

Things are ordered according to a series just in case they compose a series. The notion of a series Izquierdo takes to be primitive, ‘scarcely explicable through any concept that is better understood, since it is a *terminus per se notissimus*’ (‘Series . . . vix per quidpiam notius est explicabilis, utpote terminus per se notissimus’, *PS* 15.2, 1a.) Although Izquierdo does not think that a series can be defined in terms that are better known, he does provide descriptions of series that give an idea what he has in mind.

Izquierdo claims that there is a series ‘of any related things, the first of which is related to the second, the second to the third, the third to the fourth, and so on in succession’ (‘Sic denique [est] series quorumvis relatorum, ex quibus primus ad secundum, secundus ad tertium, & tertius ad quartum, ac deinceps pariter comparantur’, *PS* 15.2, 1b). Here Izquierdo characterizes series in terms of (i) things and (ii) a binary relation. I contend that formulating the notion of a series in set builder notation helps to formulate many of Izquierdo’s commitments concerning priority. I therefore propose to understand a series in terms of the extension of a binary relation, $\{(x, y) : R(x, y)\}$, in a set, subject to constraints that I will now specify. (Izquierdo’s notion of a series cannot be purely extensional, since he thinks there can be coextensional but distinct series. Because nothing in this article hinges on this complication, I set it aside.)

Izquierdo insists that a series is continuous: ‘a series . . . coalesces or is composed from several beings that succeed each other in a certain continuous chain [*tractu*], or are related to each other in a certain continuous succession’ (‘Series . . . ex pluribus entibus coalescit, sive componitur, quae tractu quodam continuo sibi succedunt, seu quae inter se referuntur continua quadam successione’, *PS* 15.2, 1a). Here Izquierdo seems to want to rule out the following situation from counting as a series:

Broken chain: (A, B), (C, D)

This ‘chain’ would not be continuous because the relation definitive of the series does not link B and C. Informally, we need to make sure that there is a way to get from any element in a series to any other, traveling backwards or forwards in the series. This can be done more formally as follows.

Let a path from A to B in a series be a sequence, $x_1, x_2, \dots, x_{n-1}, x_n$, such that $x_1 = A$, $x_n = B$, $(x_1, x_2) \in R$, \dots , and $(x_{n-1}, x_n) \in R$. To say that you can get from

A to B in a series is to say that there is a path from A to B in that series. We might capture the idea of an unbroken chain by saying that a relation constructs a series just in case, for any elements in the series, there is a path from one to the other. This is a good start, but it is too strong, since Izquierdo recognizes the possibility of series with branching paths. Examples include a causal series in which one cause causes multiple effects, resulting in diverging causal paths, and a causal series where multiple causes cause one effect, resulting in converging causal paths (PS 15.37, 7a; this passage contains several other examples of diverging and converging paths in a series). A series with diverging paths will be continuous in Izquierdo's sense, but it will have elements such that there is no path from one to the other or *vice versa*. For example:

Diverging paths: (A, B), (B, C), (B, D)

Here there is no path from C to D or from D to C. To accommodate this possibility, we can stipulate that traveling backwards along a path is allowed. We can do this formally as follows.

Let R' be the inverse of R , and let R'' be the result of disjoining R and R' . Since R'' is symmetric, the path between any two of its elements travels in both directions. So we can say that the extension of a relation R is continuous just in case, for any two elements in R , there is a path from one to the other in R'' . And we may understand a series as the extension of a continuous binary relation R . As I show below, the notion of a series is central to Izquierdo's theory of priority, and having this quasi-formal understanding of series will help us to articulate some of his commitments about priority. Seeing why this is the case will take some legwork.

B. Orders of Nature and Orders of Accident

Central to Izquierdo's treatment of priority is a further distinction between two ways things can be ordered in a series: things can be ordered in a series either by nature or by accident (PS 15.4, 2a). Izquierdo says that things are ordered by nature just in case they are ordered 'essentially, with nothing else added' or 'by reason of' their natures. Things are ordered by accident just in case they are in a series not because of their natures but because of their accidents. To illustrate the difference, Izquierdo says that the parts of time are temporally ordered by nature, but things in time are temporally ordered by accident, since they are accidentally conjoined to the parts of time. Caesar is temporally prior to Trump, but that is not due to the natures of Caesar or Trump. Indeed, Caesar and Trump could have been contemporaries.

The distinction between orders of nature and orders of accident is important for Izquierdo, but it is not as straightforward as it first appears. To see why, consider a problem raised by Izquierdo himself. On Izquierdo's theory of causation, a cause causes an effect by the medium of an action (PS 15.19, 4a). I label this case 'Causal Series'.

Causal Series: Cause → Action → Effect

Here each element in the series is linked to the next by influx, as depicted by the arrow. (Oviedo 1651: 197a6 notes that there was a debate about whether actions are causally prior to their effects. Izquierdo thinks they are, since effects ‘come from’ actions.) I return to the role of influx in causation below; for now I just want to address this question: is Causal Series an order of nature or an order of accident? A strong case can be made that Causal Series is an order of accident. This is because Izquierdo thinks actions are, at least sometimes, accidental to both causes and effects in the sense that a cause and its effect could both exist without a particular action. So the cause and effect are elements of Causal Series not in virtue of their natures but in virtue of something accidental to them, the action.

Nevertheless, Izquierdo thinks that Causal Series is an order of nature. He responds to the problem case by pointing to a difference in the modal profiles of orders of nature on the one hand and orders of accident on the other. He writes (*PS* 15.19, 4b):

Unde sicut natura ordinata dicuntur duo entia immediate, quorum alterum non potest non esse prius altero, casu quod ambo existant, ita etiam mediate dicuntur illa secundum naturam ordinata, quae, posito medio, ratione cuius ordinantur mediate, non possunt non esse ordinata. Sic se habent causa & effectus, posita actione, sive influxu intermedio.

(Thus, just as two entities are called immediately ordered by nature if it is the case that if both exist, then one cannot fail to be prior to the other one, so also they are called mediately ordered according to nature if it is the case that, if a medium is posited, by reason of which they are mediately ordered, they cannot fail to be ordered. This is the case with cause and effect when action or intermediate influx is posited.)

Although a cause can exist without one of its effects and *vice versa*, once you posit a cause, its action, and its effect, all those items together necessarily generate an order of nature. I do not think the following modal principle is supposed to be an analysis but a necessary and sufficient condition on being an order of nature:

The modal principle: S is an order of nature just in case it is metaphysically necessary that if all the elements of S exist, then they are elements of S.

It follows from the modal principle that elements of an accidental order can all exist without being in that order. For example, Caesar and Trump and everything in between might all exist without Caesar being temporally prior to Trump. But the items in our Causal Series cannot all exist without composing Causal Series. (This is because an action is individuated by its cause and effect, so a given action cannot exist without coming from a certain cause and producing a certain effect.)

As I have shown, Izquierdo thinks that things are ordered by nature just in case they are ordered in virtue of their essences. The case of Causal Series points to an ambiguity in this claim. In virtue of *what* essences are things ordered by nature?

It is evidently not the case that any element of an order of nature is in that order in virtue of its essence, as the case of Causal Series makes clear. In light of the modal principle above, we can say that an order of nature is grounded in the essences of all of its members taken together. This is not the case for orders of accident. The temporal series consisting of Caesar and Trump is not grounded in the essences of Caesar and Trump. Rather, that series is grounded in the natures of the times occupied by Caesar and Trump, together with the contingent fact that Caesar and Trump occupy those times. This observation is confirmed by texts. For example, Izquierdo (*PS* 15.5, 2a) tells us,

Efficitur plane ut ordo accidentis eorum quae accidentaliter ordinata sunt, in naturam accidentium quae illis accrescunt referri debeat, tanquam in id a quo ducit originem . . . Nulla enim entia ex accidente ordinata dicuntur, nisi accidentia unde emanat ordo sint ordinata ex sua natura.

(It is clear that an accidental order of things that are ordered accidentally must be referred to the nature of the accidents that are added to the ordered things. It is from the nature of these accidents that the order of accident gets its origin . . . For no beings are ordered accidentally unless the accidents from which an accidental order arises are ordered naturally.)

So a series is an order of nature just in case it is grounded in the essences of its members; it is an order of accident just in case it is grounded in the essences of things to which its members are accidentally conjoined. The difference between orders of nature and orders of accident might seem to have little to do with priority, but as we will see, it has surprising and interesting implications for the formal properties of priority.

III. Priorities

We come now to Izquierdo's notion(s) of priority. Izquierdo takes priority to be a relation between elements in a series, and he draws two cross-cutting distinctions between kinds of priority: between priority by nature and priority by accident, and between absolute and relative priority. Priority by nature is priority in an order of nature, while priority by accident is priority in an accidental order. I return to this distinction below, but for now I focus on the relative/absolute priority distinction.

A. Relative priority

For A to be absolutely prior to B, no comparison with a third thing is required. But sometimes we say that one thing is prior to another only in comparison with something else. For example, I might give you directions by telling you to take the *first* street on the left. There is nothing about that street that makes it prior to all the others absolutely. Rather, the priority of the first street on the left is relative to

our current position in a series of locations beginning with our own. Izquierdo's intuitive gloss on relative priority is that B is prior to C relative to A just in case B is closer to A than C is. Hence, the first street on the left is prior to the others because it is closer to us than the others. Izquierdo's more technical definition of relative priority is in terms of the number of things between two things in a series:

Relative priority: B is prior to C relative to A in a series S just in case there are fewer elements of S between A and B [*pauciora media intercepta sunt*] than there are between A and C in S.

This definition is derived from (but is not a translation of) the following: 'Quod enim alteri in unoquoque ordine immediatum est, id propinquius est illi quam mediata; atque adeo priusquam illa respectu eius; inter mediata autem illud est pruis respectu tertii sive propinquius illi a quo ad tertium pauciora media intercepta sunt' (PS 15.12, 3a).

Intuitively, B is prior to C relative to A just in case the length of the path between A and B is shorter than the length of the path between A and C. However, if the relation definitive of a series is transitive, there might be more than one path from A to B (or C), as follows:

(A, B), (B, C), (A, C)

Here there is a short cut, a path of length 1, from A to C, but Izquierdo clearly wants B to be prior to C relative to A in this series, since there are fewer elements between A and B than between A and C. To capture this idea, we can say that y is the immediate successor of x in R iff $R(x, y)$ and there is no z (distinct from x and y) such that $R(x, z)$ and $R(z, y)$. Now we can define the distance between A and B in S as the length of the shortest path through the immediate successors from A to B. And B is prior to C relative to A in S just in case the distance from A to B is less than the distance from A to C in S. This way of conceiving of relative priority is very close to Izquierdo's own language about relative priority in terms of closeness and the number of elements between the respective elements in a series.

This definition of relative priority also satisfies the formal properties that Izquierdo assigns to relative priority. If we fix the element of a series relative to which priority claims are made, the result is a binary relation:

__ is prior to __ relative to A in S.

Izquierdo argues that this binary relation is transitive, asymmetric, and irreflexive, as it is on the above conception of relative priority (PS 15.68, 76, 80, 111–13a). The above definition also allows relative priority to be found in series defined by reflexive and symmetric relations; as we will see, absolute priority can be found only in series defined by irreflexive and asymmetric relations.

B. Absolute Priority

Izquierdo says there are exactly four (simple) kinds of absolute priority: priority of duration, worth, origin, and nonmutual connection ('Dico ergo primo, quatuor omnino modis esse alia aliis priora secundum naturam ea prioritate, quam absolutam a tertio diximus, nempe, duratione, origine, inconnexione non mutua, & dignitate seu perfectione', *PS* 15.14, 3b). Izquierdo offers no argument for his enumeration, probably because something like it was widely accepted at the time. But Izquierdo's framework can easily be expanded to accommodate alternative kinds of simple absolute priority. Here I will provide an overview of the four simple priorities, and then I will zoom out to address global questions about the coherence of Izquierdo's theory of priority.

i. Priority of duration

Priority of duration is the priority characteristic of the 'parts of time', according to which one time is prior to another. Like his contemporaries, Izquierdo does not define priority of duration, and he claims that certain features of priority of duration are understandable just from an understanding of the terms involved (*ex terminis*) (*PS* 15.24, 5a). Priority of duration is also the paradigmatic case of priority, and we 'conceive or imagine the other kinds of priority in the image of priority of duration' ('Prioritas durationis . . . suapte natura omnium profecto prioritatum naturae notissima est. Unde & reliquarum solet nobis esse mensura, ad cuius instar eas concipere, seu imaginari consuevimus', *PS* 15.24, 5a). Izquierdo argues that priority of duration is transitive (*PS* 15.70, 11b), asymmetric (*PS* 15.74–75, 12b), and irreflexive (*PS* 15.79–80, 13a). First, he thinks it is obvious that if yesterday is prior to today, and today is prior to tomorrow, then yesterday is prior to tomorrow. And since *before* is the contrary of *after*, yesterday cannot be after tomorrow. Since *after* is the converse of *before*, it follows that tomorrow cannot be before yesterday. Hence, if yesterday is prior to tomorrow, tomorrow cannot also be prior to yesterday, and priority in duration is asymmetric. Finally, Izquierdo notes that irreflexivity follows from asymmetry (*PS* 15.79–80).

ii. Priority of worth

The other kinds of priority are definable. A is prior in worth [*dignitas*] to B just in case A is more perfect or worth more [*dignius*] than B (*PS* 15.26, 5b). Izquierdo does not tell us exactly what it means for one thing to be more perfect or worth more than another. At any rate, Izquierdo also tells us that priority of worth is not a 'proper and strict' priority, and it is a form of priority only by analogy. I will accordingly not dedicate much attention to it, but it is worth noting that Izquierdo treats priority of worth with as much technical care as the other forms of priority, and he argues that priority of worth, like priority of duration, is transitive, asymmetric, and irreflexive (*PS* 15.69, 11b; 74–75, 12b; 80, 13a).

iii. Priority of origin

Much closer to the interests of contemporary metaphysicians will be priority of origin and priority of nonmutual connection. Izquierdo defines priority of origin

in terms of influx, as follows: ‘With respect to origin, that is prior to another which inflows into it in some way, whether as an influxive principle or as a cause or a condition or a causality’ (‘Origine autem illud altero est prius, quod in id influit quoquo modo sive ut principium influxivum, sive ut causa, sive ut conditio, sive ut causalitas’, *PS* 15.14, 3b; see also 25, 5a). This definition is perplexing in several respects. Scholastics tend to use the notion of influx to characterize one or more of the four causes (Suárez’s definition of a cause is ‘a principle per se inflowing being into something else’ (*DM* 12.2.4)). There was little consensus about how to define causation among Jesuits, but most attempts appealed to the notion of influx. (For a survey of the debate, see Arriaga 1669: 373a–76b.) In light of the influx language, it appears that Izquierdo’s priority of origin is a broadly causal sort of priority, but it is also not initially clear how we are to understand his four ways of inflowing—as an influxive principle, a cause, a condition, or a causality—nor indeed whether these are supposed to be four different ways of inflowing or four ways of describing one way of inflowing. Unfortunately, Izquierdo does not leave us with a theory of causation in either his *Pharus scientiarum* or his *Opus theologicum* (not that I have found anyway). However, contemporaneous Jesuit discussions of causation can dispel some (but not all) of the mystery surrounding Izquierdo’s definition of priority by origin. It also vindicates the initial impression that priority of origin is a broadly causal form of priority.

As mentioned above, scholastics tend to use the notion of influx to characterize causes—roughly, a cause *inflows* being into its effect. Influx is commonly characterized as the ‘communication of being’ (Suárez *DM* 12), a formula that Izquierdo repeats (*PS* 15.25, 5a). It is not clear whether we are to take this communication of being literally or metaphorically. Jacob Tuttle has recently defended a reductive reading. He argues that for Suárez influx is just ontological dependence (Tuttle 2016: 128–130). But his reading cannot be correct, since Suárez thinks that the first person of the Trinity inflows into the second person, but Suárez argues at length that the second person does not depend on the first (*DM* 12.2.5–7). Suárez argues for the latter claim in order to maintain two theological claims that seem to be in tension: (i) the Word proceeds from the Father, but (ii) the Word is not created by the Father. Suárez resolves the tension by saying that (i*) the Father communicates being to the Son, but since causation implies dependence, and the Son does not depend on the Father, (ii*) the Father does not cause the Son, and hence does not create the Son. The Trinity therefore presents an actual case of inflowing without dependence, and inflowing cannot be dependence. Absent a better alternative, I suggest we take the communication of being to be irreducible. This is not to say that there is only one way to inflow. Suárez tells us that inflowing ‘strictly’ applies to efficient causation (*DM* 12.2.4), but other forms of inflowing apply to the other three causes: matter inflows by constituting and by being a subject (*DM* 12.1.7), a form inflows by ‘completing’, and a final cause inflows by motivating (*DM* 12.2.4).

As I have shown, Izquierdo lists four ways to inflow: as an influxive principle, a cause, a condition, or a causality. Izquierdo does not explain how these ways differ, so I cannot provide here a detailed theory of Izquierdian influx. However,

paying attention to other Jesuit discussions, especially Suárez's, helps to explain why Izquierdo draws these distinctions.

I have already shown that one way to inflow is as a cause into an effect. But we have also seen that some things inflow into others without causing them, as in the Trinity. That is why we need the notion of an influxive principle in addition to the notion of cause.

I have also shown from Izquierdo's discussion that an action inflows into an effect. But an action is not strictly speaking a cause of an effect, otherwise there would be a regress of causes (since a cause causes by means of an action). Nor, one might think, is an action an influxive *principle* (i.e., starting point) because actions are the *mediums* (i.e., middle points) by which causes inflow into effects. If that is correct, then (i) actions inflow into effects, but (ii) actions are neither influxive principles nor causes, and we need to add a way of inflowing to our list. Suárez argues that an action is the causality of an efficient cause (*DM* 18.10; Tuttle 2016), and Izquierdo agrees (*PS* 15.108, 17b). We can conclude that 'as a causality' is meant to capture the way an action inflows into an effect.

That leaves perhaps the most puzzling way to inflow: as a condition. By 'condition' Izquierdo means a condition required for a cause actually to cause an effect (*PS* 15.85, 14a). Fire can heat water, but not if the water is too far away. The appropriate proximity is therefore one condition for a fire to heat water. Izquierdo's own, rather bizarre examples include the following: the future existence of the Antichrist is a condition for the intellect to produce an act of faith—a special kind of infallible religious belief—about the future existence of the Antichrist (*PS* 15.85, 14a); and an object's location in place A is a condition for its being moved to an adjacent place B (*PS* 15.54, 9b). The claim that a causal condition is causally prior to an effect is not new with Izquierdo: another Jesuit, Francisco Peinado, had insisted on that point before him (1680: 227a34). What is puzzling is the claim that causal conditions inflow 'in some way' (*quoquo modo*) into effects (*PS* 15.85, 14a). But this claim too was not entirely new with Izquierdo: Francisco Oviedo endorsed it earlier (1651: 198b2).

From the foregoing I submit that Izquierdo's main point about priority of origin is clear: priority of origin is broadly causal priority, designed to accommodate the idea that any kind of producer, along with the conditions necessary for production, is prior to what is produced. Suárez thinks that, in addition to efficient causes, matter, form, and final causes inflow into their effects. Izquierdo agrees that final causes inflow (I return to this below), but he suspends judgment on whether matter and form inflow (*PS* 15.107, 17a), which was a matter of dispute among seventeenth-century Jesuits.

Another possible case of priority of origin concerns grounding. Just as Izquierdo does not provide a formal theory of grounding, he does not tell us explicitly whether grounding makes for priority. However, given the language Izquierdo uses to describe grounding, I think it is safe to say that for Izquierdo grounds are prior by origin to the items they ground. This is because Izquierdo consistently uses causal language to describe grounding. He claims that grounds are the 'first fountain' from which grounded entities 'flow' (*promanat*, *emanat*), that grounded entities are 'born' from (*PS* 15.5, 2a) and 'rely on' (*innititur*) their grounds (*PS* 14.8,

394a). The language of grounded entities ‘flowing’ from their grounds strongly suggests a causal model of grounding. Most tellingly for my purposes, Izquierdo says in one case that grounds are things from which grounded items have their origin (*a quo ducit originem*) (PS 15.5, 2a). Since priority of origin is Izquierdo’s version of priority from which (*a quo*) grounded things get their origin, I think it is safe to conclude that grounds are prior by origin to the things they ground. To illustrate this conclusion with some of Izquierdo’s examples of grounds, series of nature are prior by origin to series of accident; things and their properties are prior by origin to relations; an exchange of vows is prior by origin to being married; a thought is prior by origin to being thought about (see PS 12.42, 298a; 3.43, 116b; 14.5, 393b; 14.5, 393b; 6.29, 151b).

Izquierdo is explicit about the formal properties of priority of origin. First, priority of origin relations can obtain between items at a time or at different times. For Izquierdo, it is noncontroversial that priority of origin can be synchronic, since it was standard among early modern scholastics to say that efficient causation is synchronic. But Izquierdo explicitly argues that priority of origin can be diachronic as well, and to that end he offers two of examples, one of which was noted above: an object’s presence in one place can be prior in origin and duration to its presence in another place; and Adam’s past duration is prior in origin and duration to a present act of faith about Adam’s past duration (PS 15.54, 9b). (Where A is prior to B in multiple ways, Izquierdo says that the relevant priorities are ‘mixed’). So priority of origin can obtain between items at a time and items at different times.

Izquierdo says that priority of origin is transitive (PS 15.72, 12a), asymmetric (PS 15.74–75, 12b), and irreflexive (PS 15.80, 13a), but he provides little in the way of arguments for these claims. He simply asserts that if A is conducive to the being of B, and B is conducive to the being of C, then A is conducive to the being of C. (This argument can actually be found in PS 15.71, 11b, where Izquierdo argues for the transitivity of nonmutual connection, but I think the argument is supposed to work for both nonmutual connection and origin.) Izquierdo’s only argument for asymmetry comes from the generic observation that priority and posteriority are converse relations and contraries. From this it follows that if A is prior to B, and B is prior to A, then A is prior and posterior to B, which cannot happen. Finally, Izquierdo simply declares it impossible for something to communicate being to itself, and so priority of origin is irreflexive.

iv. Priority of nonmutual connection

As the name suggests, priority of nonmutual connection is defined in terms of connection (PS 15.14, 3b):

Inconnexione vero non mutua unum altero prius est quando posterius cum priore necessario connectitur, sed non vicissim.

(With respect to nonmutual interconnection, one thing is prior to another when the posterior thing is necessarily connected to the prior thing, but not vice versa.)

Izquierdo then defines connection partially in modal terms: B is connected with A just in case B cannot exist without A (*PS* 15.63, 10b; Izquierdo's theory of connection is worked out in detail in d. 14, q. 2). Izquierdo recognizes various strengths of modality, but the necessity here is explicitly stated to be metaphysical necessity, and the connection is a metaphysical connection. To say that the connection is nonmutual is to say that it is asymmetric. Hence, B is nonmutually connected to A just in case B cannot exist without A, but A can exist without B. In that case, A is prior by nonmutual connection to B. As mentioned above, Izquierdo's Jesuit colleagues tend to define causal priority in terms of nonmutual connection. Izquierdo is the only one that I have seen who argues that these two forms of priority come apart.

There is a problem with nonmutual connection as stated. The problem is that it over-generates priority relations (Lowe and Tahko 2015: §2). For any necessary existent N and for any contingent existent B, it is trivially true that B cannot exist without N (but not vice versa). If N is God, this might not be seen as a problem; but it is a problem if there are such necessary existents as numbers, propositions, or universals. For then the number two, say, would be prior by nonmutual connection to my cat Felix, which does not seem correct.

Although he does not advertise it, Izquierdo has a solution to this problem. For in at least two places he states that metaphysical connections are grounded in the essences of connected things ('Porro connexio metaphysica in ipsis rerum essentiis, in essentialique exigentia nulla potentia refragabili, quam illa habent termini connexionis, fundatur', *PS* 14.36, 398b; 15.63, 11b). In light of this requirement, we can say that B is metaphysically connected with A just in case it is in virtue of the essence of B that B cannot exist without A. Although Felix cannot exist without the number 2, this is due to the nature of the number 2, not Felix. So Felix is not connected with the number 2 in Izquierdo's sense, and the number 2 is not prior by nonmutual connection to Felix.

Izquierdo offers several examples of priority by nonmutual connection. Izquierdo tells us that the possibility of a thing is prior by nonmutual connection to its existence (*PS* 15.27, 5b), a conditional state is prior by nonmutual connection to an absolute state (*PS* 15.27, 5b)—that is, my being such that I would accept a bribe if offered one is prior to my being such that I took a bribe that was offered—unity is prior to twoness (*PS* 15.27, 5b), essential universals like *being a human* are prior to particulars like Socrates (This seems to be implied by *PS* 15.101–102, 16b.), truths about essence are prior to truths about existence (*PS* 15.103, 16b)—for example, the truth of 'Socrates is essentially rational' is prior to the truth of 'Socrates is actually rational'—the future existence of the antichrist is prior by nonmutual connection to the present 'act of faith' or belief that the antichrist will exist (*PS* 15.84, 13b), a genus is prior by nonmutual connection to the species under it (*PS* 15.37, 7a), and parts are prior by nonmutual connection to the wholes they compose (*PS* 15.107, 17a) (so Izquierdo is a mereological essentialist!).

Izquierdo asserts that the *relata* of nonmutual connection can exist at the same time or at different times (*PS* 15.53, 9a), as in: the present act of faith about the antichrist is nonmutually connected to the future antichrist. Priority of nonmutual connection is also transitive (*PS* 15.71, 12a), asymmetric (*PS* 15.74–75, 12b), and

irreflexive (PS 15.80, 13a). Izquierdo's argument for transitivity is the same argument he uses to establish transitivity of origin: he simply asserts that if A conduces to B's being, and B conduces to C's being, then A conduces to C's being (this claim is problematic, and I return to it below). The asymmetry of nonmutual connection is built-in by way of nonmutuality. And Izquierdo notes that transitivity and asymmetry yield irreflexivity.

Before moving on from priority of nonmutual connection, I must pause to note a peculiar doctrine that will be important to assessing the coherence of Izquierdo's general theory of priority. Consider a causal series consisting in an action and the effect brought about by that action. For most Jesuits, Izquierdo included, actions are modes of the effects they bring about. Consequently, an action is nonmutually connected to the effect it brings about. Given the foregoing, we might expect Izquierdo to say that an action is prior by origin to the effect it brings about, since the action inflows into the effect, and posterior by nonmutual connection to that effect, since the action is metaphysically connected to the effect, and not *vice versa*. But, strangely, that is not what Izquierdo says. Rather, he insists that priority of nonmutual connection is 'impeded' by priority of origin (PS 15.47, 8b). That is, if A is prior by origin to B, then B cannot be prior by nonmutual connection to A. It follows from this doctrine that an action is not posterior by nonmutual connection to its effect. I call this 'the doctrine of priority impediment'.

Izquierdo's rationale for this doctrine is that influx and nonmutual connection are two ways of being ontologically dependent: B can be dependent on A insofar as (i) B gets its being from A, or (ii) B cannot exist without A. Izquierdo insists that these are two *different* ways of being dependent on something else, and that is why they make for two different kinds of priority. Izquierdo notes that dependence by way of nonmutual connection is modally stronger than dependence by way of influx, but he also thinks it is obvious that 'dependence through origin is a more proper [*proprior*] dependence than dependence through connection' (PS 15.28, 6a; thanks to Referee 2 for pointing out that *proprior* is listed in at least one early modern Latin lexicon as a comparative of *proprium*.). For this claim he offers no argument, noting instead that it 'ought to be certain to everyone' (PS 15.28, 6a). The intuition (which I confess I do not share) is supposed to be that one has greater dependence [*maiori dependentia*] on its source of being than on something without which it cannot exist (PS 15.48, 8b). Hence, an effect has a greater dependence on the action that produces it than the action has on the effect.

All this is relevant to the doctrine of priority impediment because in one place Izquierdo remarks offhand that priority of origin and priority of nonmutual connection are grounded in dependence (PS 15.49, 8b). I take this to imply that the reason why influx and nonmutual connection make for priority is that they make for dependence. Izquierdo thinks that if priority is determined by dependence, then where dependence relations point in opposing directions, the direction of priority is determined by the direction of greater dependence. That is why priority of origin impedes priority of nonmutual connection.

This completes the overview of what Izquierdo calls the 'simple' priorities. In addition to the foregoing, Izquierdo discusses at length the possibility of 'mixing' and 'chaining' the four simple absolute priorities (PS 15.51–59, 9a–10b). Two

priorities are mixed to the extent that they are coextensive. So if A is prior to B by duration and worth, then priorities of duration and worth are mixed with respect to A and B. I return to the possibility of chaining priorities below.

Izquierdo also recognizes priority of cognition. He says that A is prior in cognition to B just in case (i) the cognition of A is prior to the cognition of B in one of the above ways, or (ii) A is conceived of as prior to B in one of the above ways. Priority of cognition is clearly derivative on the four simple, absolute priorities, since it is derived from them by way of the notion of cognition.

IV. Identity and Tracking

We now face a subtle but important decision regarding the interpretation of Izquierdo's theory of priority. We have four simple, absolute priority relations: priority of duration, worth, origin, and nonmutual connection. We are told that three of these relations track other relations: priority of worth tracks the *better than* relation, priority of origin tracks the *influx* relation, and priority of nonmutual connection tracks the nonmutual connection relation (with the caveat about priority impediment discussed above). (We are not told what relation, if any, the priority of duration relation tracks.) Call the relations tracked by priority relations 'basis relations'. The subtle but important decision we face is this: are the priority relations identical with their basis relations, or do they merely track their basis relations?

Before one's attention is brought to this question, it is natural to assume that the priority relations are identical with their basis relations. I call this 'the identity reading'. The identity reading faces two serious difficulties. First, not all priority relations have the same formal properties as their basis relations. Priority of origin, for example, is transitive, but intuitively the influx relation is not. (Otherwise there would be systematic causal overdetermination.) Perhaps the claim that influx is not transitive will be resisted, but there is a smoking gun case that cannot be resisted. Izquierdo thinks that priority of origin and priority of nonmutual connection can be chained. This means that if A is prior by origin to B, and B is prior by nonmutual connection to C, then A is prior by a 'composite' sort of priority to C. The basis relation of this composite priority is a concatenation of simple priority relations, something like: *__is prior by origin or nonmutual connection to__*. But clearly that relation is not transitive. Socrates's parents are prior by origin to Socrates, and Socrates is prior by nonmutual connection to Socrates's sitting, but Socrates's parents are not prior by origin or nonmutual connection to Socrates's sitting. Hence, the 'composite' priority relation that results from concatenating priority of origin and priority of nonmutual connection is not the same as its basis relation, and the identity reading cannot be correct.

Another problem with the assumption that priority relations are identical with their basis relations concerns the unity of priority. On the identity reading, we are told that there are four priority relations—priority of duration, better than, influx, and nonmutual connection. These look like four heterogeneous relations, so why

are they univocally called priority relations? What unifies them in such a way that they are all priority relations?

Note that the unity question is a good question for any theory of priority. We use the notion of priority in a wide variety of contexts. Are we using 'prior' univocally across these contexts, or are we changing the subject each time? On the one hand, it seems intuitively correct that we are not changing the subject entirely. But if not, what accounts for the unity of the various priority relations? The identity interpretation provides no clear answer to this question; accordingly, on the identity reading Izquierdo is not obviously providing a unified theory of anything. But the tracking interpretation does provide a clear answer to the question what unifies the various priority relations.

According to the tracking interpretation, priority relations track but are not identical with their basis relations. The tracking interpretation is not subject to the two problems facing the identity reading, and it has other virtues besides. In order to formulate the tracking interpretation, we need to bring back the notions of series and a path in a series. Recall that a path is a quasi-formal device used to articulate Izquierdo's idea that a series is a 'continuous chain'. On the tracking interpretation, there is a generic, ternary Priority relation defined as follows

Priority: A is prior in ϕ to B =_{df} there is a path from A to B in a series of ϕ .

For example, A is prior in origin to B just in case there is a path from A to B in a series of origin. A series of origin is a series defined by the influx relation.

All four basis relations for absolute priority are asymmetric. Izquierdo also discusses the counter-possibility that these relations are not asymmetric, and he says that if A and B are symmetrically related by a basis relation R, then A and B would be simultaneous in the relevant series. In other words, if there is a path from A to B and back again, then A is not prior to B. If one of the basis relations were symmetric, Izquierdo would have to add to the above definition of Priority that there is no path from B to A in the relevant series.

It is easy to see how, on the tracking interpretation, priority of origin is transitive even if influx is not. This is because if there is a path from A to B and from B to C, then there is a path from A to C, even if A does not inflow into C. It is also easy to see how the tracking interpretation can account for the unity of the specific priority relations. Priority in duration, worth, origin, and nonmutual connection are all generated by plugging in the appropriate series-type for ϕ in the definition of generic priority. So we can give a single account of why each specific priority relation is a priority relation: each specific priority relation is generated in the appropriate way from the generic priority relation.

V. Concluding Lessons

Izquierdo's theory of priority is at once complex and admirably coherent. He begins with the notion of a series, and then he draws cross-cutting distinctions between relative and absolute priority, essential and accidental priority. He then draws further distinctions between four kinds of absolute priority. He also recognizes

priority of cognition and the possibility of mixing and chaining of priority relations. Notwithstanding this complexity, Izquierdo's theory is remarkably simple. The whole theory can be generated with the concepts of series, grounding, natures, accidents, and the four basis relations that generate series of absolute priority. The theory is also flexible: new absolute priority relations can be introduced simply by introducing new basis relations with the appropriate formal properties.

I close by noting how Izquierdo brings his theory of priority to bear on a question of importance to scholastic philosophers. One objection to the idea of final causation is that it is incoherent, since the final cause must be prior to itself. A final cause is prior to itself because it final-causes its own efficient cause: the sandwich is the final cause of my making a sandwich, and my making the sandwich efficiently causes the sandwich. But nothing can be prior to itself, so final causation is incoherent.

Izquierdo responds to this objection by pointing out that while nothing can be prior to itself in an order of nature, something can be prior to itself in an order of accident. The goal of an activity comes at the end of a causal series like this:

Intention → Activity → Goal

But the goal is accidentally conjoined to the intention by the *aboutness* relation. Thus, the goal precedes itself in an order of accident. Izquierdo can therefore explain and accommodate the intuition that priority is a strict partial order (that is an intuition about priority of nature) while also vindicating the coherence of final causation, which requires a priority relation that is not a strict partial order. This result testifies to the ingeniousness of Izquierdo's theory of priority.

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