

of Baptism and the Eucharist. The fifth chapter discusses and rejects the other Sacraments, and the sixth chapter deals with Christian liberty.

The second edition, published in Strassburg in 1539, during Calvin's temporary banishment from Geneva, is three times as large and has more coherent and systematic organization. It contains an extended statement of his doctrine of predestination, a tenet whose elaboration was influenced by the Strassburg reformer Martin BUCER. This edition, translated by Calvin into French and published in Geneva in 1541, is an important landmark in French literary style as well as French religious thought. The final revision of 1559, followed by a French translation in 1560, is five times the size of the original draft, with 80 chapters, divided into four books. It is the expression of Calvin's mature Biblical theology presented under four main headings (corresponding to the four books): (1) the knowledge of God the Creator, (2) the knowledge of God the Redeemer in Christ, (3) the way in which we receive the grace of Christ, (4) the external means or aids. The famous statement on eternal election, or predestination, is found in bk. 3, ch. 21.

The *Institutes* remains a theological masterpiece, the *summa* of Reformed Protestantism and the most important single work of the Reformers. The final edition was soon translated into most of the languages of Europe. A Dutch version appeared in 1560, the first English translation in 1561, and a German version at Heidelberg in 1572. (See CALVINISM; PREDESTINATION.)

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[J. C. OLIN]

INSTRUMENTAL CAUSALITY

Instrumental causality in the wide acceptance of the term signifies any type of causal subordination. More properly it applies to a special type of efficient cause that is itself moved and elevated by the power of a principal efficient cause to produce an effect proportionate to the nature and power of the principal cause. This article considers briefly the various types of instrument to which this causality is ascribed and then examines the notion of efficient instrumentality, the nature of instrumental power, and the proper action of the instrument. It concludes with a discussion of an important application of instrumental causality in the area of sacramental theology and a brief summary.

Kinds of Instrument. In a general way instrumental causality can be applied to any series of causes wherein

one is subordinated to another. This usage includes the subordination that exists between the motion of God as primary principal cause and man as secondary principal cause in human actions. Although a secondary principal cause must be moved from first to second act in order to operate, the motion of God is only a CONDITION for the operation of man and not its formal constitutive, as it is in the stricter meaning of instrumental causality.

In a more limited sense, the term instrumental cause is applied to three particular types of instrumental causality, designated as moral, logical, and efficient.

Moral Instrument. A moral instrument is whatever moves a principal efficient cause by way of inducement, as a consciously sought END. The classical example of such causality is paper currency, which, though it has no intrinsic value itself, has, by the decree of the treasury, an extrinsic value. This value, itself presupposed to any financial transaction, gives the currency the status of an instrumental cause.

Logical Instrument. The logical instrument is the SIGN, and, as such, leads the one observing it to a knowledge of the object for which the sign stands, as in the case of a traffic signal. The sign consequently exercises the same type of causality as any other knowable object, namely, that of an extrinsic formal cause.

Efficient Instrument. An efficient instrument is that from which an effect flows by reason of the subordination of the instrument to a principal efficient cause, to which the instrument ministers and by which it is moved. An example would be the use of a pencil to write. Since this type of instrument exercises its ministerial activity through activity or motion, it alone can be properly termed an efficient instrument.

Notion of Efficient Instrumentality. An efficient instrument attains an effect beyond its own power. Whether the instrumental cause attains to the ultimate perfection of the form produced by the principal agent, or only disposes the appropriate matter for the reception of the form, the efficient instrument acts beyond its proper power. If the instrument did not attain an effect beyond this power, the effect could be attributed to the instrument as to a principal cause, and movement from another cause would not be required to produce the effect.

Yet this aspect of instrumentality does not furnish an adequate basis for distinguishing an instrumental cause from a principal cause. There are cases where the principal agent attains an effect beyond its proper nature without being an efficient instrument. Man, for example, is the principal agent in the production of supernatural acts, and yet these acts proceed from divinely infused virtues. The fact that an instrument attains an effect superior to

its own nature, while a necessary condition of true instrumentality, is not its essential characteristic.

To understand the formal constitutive of efficient instrumentality, one must focus on the fact that an instrument, properly so called, performs a function to which it is directed by the principal cause while itself not possessing the permanent or proper power to perform that function. For this reason an instrument is most accurately defined as an agent that is moved and elevated by the action of the principal efficient cause to produce an effect that is proper to the nature and power of the principal cause. The formal aspect of instrumental causality consists in its operating precisely as moved by the principal agent. It is this dependence of the instrument on the principal cause that is emphasized in the definition proposed by St. THOMAS AQUINAS: "The precise formality of an instrument, insofar as it is an instrument, is that it moves precisely as already moved" (*C. gent.* 2.21).

Instrumental Power. From this concept of instrumental causality it follows that the instrument receives, after the manner of a MOTION, a power derived from the principal cause. This transiently received power enables the instrument to attain the effect of the principal cause, which itself exceeds, of course, the natural power of the instrument.

The instrumental power received from the principal agent is a transitory entity that begins and ends with the action for which it is given, and is received intrinsically by the instrument it perfects. Being thus intrinsically received, the power affects the nature of the instrument; and so it is said to be a physical entity, as opposed to a moral entity that acts from without. Further, such a physical power, being essentially a transitory and passing assistance communicated to the instrument by the principal cause to effect an action, is called a motion; since it is presupposed to the action of the instrument, it is also called a premotion (*see* PREMOTION, PHYSICAL).

The general doctrine of Thomists is that the ability of the instrument to be used by a principal efficient cause is a passive obediencial POTENCY, i.e., that it does not consist in a positive ordination of the instrument to the effect of the principal cause, but only in a nonrepugnance to its use by the principal cause. As opposed to this, F. Suárez teaches (*Disp. meta.* 42.4.9) that there is an active obediencial potency in such an instrument. This active potency places the instrument in first act with respect to the effect of a principal agent, and does so in such a way that the instrument remains in potency to the effect whether it is in use or not.

For true instrumental subordination it is necessary that the instrumental activity depend upon the activity of

the principal cause, and that the action of the principal cause be received intrinsically into the instrument and so influence its action from within. In contradistinction to coordinated causes, each of which is responsible for part of the effect, both the principal and instrumental cause are responsible for the entire effect.

Proper Action of the Instrument. It is essential also that the instrument retain its proper power in its subordination to the principal cause, for otherwise it would cease to be an instrument, and become a mere medium for the passage of the power of the principal cause. Creatures use instruments because they need their help. A sculptor is incapable of producing a statue in marble unless he employs instruments that assist him in overcoming the resistant quality of the marble. "Because an instrument is not sought for its own sake but for the sake of the end, it is a better instrument not for being larger, but for being more adapted to the end" (St. Thomas, ST 2a3ae, 188.7 ad 1). Even in cases where God uses an instrument to produce a supernatural effect, as in the Sacraments, the instrument has its own proper activity. All that is required of the instrument used by God is that it limit in some way His mode of operation. God adapts His activity to the operation of the created instrument for the production of an effect, while not being limited, in attaining that effect, by the particular form of the instrument. He can use any instrument to attain any effect, so long as this use does not involve a contradiction.

The proper action of the instrumental form produces a MODE in the effect produced. An efficient instrument employed by a created agent limits the efficiency of such an agent to the proper operation of the instrumental form. An artist cannot produce violin music on a piano. In receiving the influx of the principal agent, the instrument exercises a determining causality upon the principal agent, placing a commensuration to its own form in the power it receives from the agent. The modification produced necessarily varies according to the form of the instrument. Since the mode reflects such modifications placed on the principal efficient cause, different instruments produce different modes in the ensuing effects, and these modes are commensurate with the corresponding instrumental forms.

Instrumental Causality in Theology. This notion of instrumental causality has a particular application in the doctrine of theologians who attribute a true instrumentality to the sacred humanity of Christ and to the Sacraments. The basic problem posed by those objecting to the predication of true efficient instrumentality in these cases is one of explaining how a supernatural power can inhere in a corporeal instrument. Theologians who hold for true instrumentality reply that this objection can be

answered in terms of the transient nature of the instrumental power. To understand transient to mean merely of short duration is, for them, to consider only an accidental consideration; the power should rather be conceived as transient and incomplete by reason of the special task it accomplishes. A permanent and complete power constitutes a subject as a principal agent, whereas a transient and incomplete power subordinates one subject to another, the one serving the other in the attainment of its effect. Such a transient power, even though ordained to a supernatural effect, can be subjected in a corporeal instrument, not absolutely, but only insofar as that instrument is capable of being used by a spiritual power for the attainment of a spiritual effect.

Created instruments used by God in the production of supernatural effects, while diversifying the mode of His action through their proper operations and thus fulfilling the essential conditions for true efficient instrumentality, are not capable of producing in the supernatural effect any mode that is commensurate to their natural form. God is not limited by their proper operation, and furthermore there is no proportion between the natural form of such an instrument and the effect produced through its ministerial activity. If, then, there is to be an instrument that introduces a mode in a supernatural effect, the form of that instrument must be proportioned to the effect. Since the supernatural effect can be produced only by a supernatural agent, the form of the instrument proportioned to such an effect must likewise be received from a supernatural agent. And if the created instrument must modify not only the divine activity by its proper operation, but also the divine power communicated to it to make the effect produced commensurate with the signification imposed by the divine agent, it is necessary that the form of the instrument itself be supernatural.

It is in this way, according to many theologians, that the Sacraments differ from other forms of divine activity. In confecting the sacramental artifact, Christ gave these unique instruments a supernatural signification that bears a true proportion to the effect produced through their instrumentality. And in employing various Sacraments to sanctify men, God has freely limited His power to that signification.

Summary. An instrument is thus an efficient cause that is moved and elevated by the power of the principal agent to produce an effect proper to the power of the principal cause. It differs from the principal cause in that its effect is of an order higher than itself; that it operates by the power of another. According to Thomistic doctrine the instrumental power is a transient physical premotion. Through its proper operation an instrument used by a created principal cause produces in the effect some modality

commensurate to this operation. While creatureal instruments require a proper action that is accommodated to the effect produced, this is not so when God uses instruments for certain effects. Only when such instruments have a supernatural form do they produce in the effect a modality that is proper to the instrument itself.

See Also: CAUSALITY; CAUSALITY, DIVINE; EFFICIENT CAUSALITY; INSPIRATION, BIBLICAL.

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INSTRUMENTALISM

Instrumentalism is the name given to the pragmatic philosophy of John DEWEY. In his book *The Quest for Certainty* (New York 1929) Dewey defines his system thus: "the essence of pragmatic instrumentalism is to conceive of *both* knowledge and practice as means of making goods—excellencies of all kinds—secure in experienced existence" (37 n.). The instrumental character of knowledge is clearly indicated in Dewey's earlier work *How We Think* (Boston 1910), where he teaches that thinking is stimulated by a problem presented to a man by his environment. In Dewey's terms, an indeterminate situation becomes problematic and creates a search for some solution that will solve the problem and resolve the situation. The problematic situation instills a "felt need" into the troubled human being. As a result hypothetical solutions are proposed and tested.

By reflective intelligence the individual tries to search for solutions that have worked in the past and may work in the present. According to Dewey, one of the advantages of intellectual knowledge is that solutions proposed in the past may be applied to a present problem, and either be improved upon or rejected before being tried out in actual experience. On this account his system is sometimes called experimentalism. It is true that he considered the scientific method to be a paradigm for philosophers. He did not, however, hold that any inquiry should be judged by being stretched on the Procrustean bed of the positive sciences.

Dewey is obviously concerned with the adaptability of traditional solutions to current problems. He warns, however, that so far as any problem is really new it cannot be seen as a mere repetition of something previous.