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CAN SAINT THOMAS'S *SUMMA THEOLOGIAE* SPEAK TO MOLTMANN'S *THEOLOGY OF HOPE?*

IN AN impressive essay W. M. Conlon intimates that, with the important exception of the canonical writers, the explication St. Thomas gives of Christian hope proves more sensitive and more thorough than that of any other theologian in the Church.[1] Since the article appeared in 1947, however, Thomas's pre-eminence has been challenged, even for Catholics, by the emergent cluster of " theologians of ' hope '."[2] Within this group I have chosen to focus upon the major work of just one-namely, Moltmann's *Theology of Hope-as* a man-

[1] Walter M. Conlon, "The Certitude of Hope," *The Thomist,* X (1947), 75-119, *!'l!'l6-!'l5!'l.* Though his emphasis remains on the narrower question of " certitude," the implications are clear also that Thomas's understanding on other matters pertaining to hope surpasses that of other men, an intimation spelled out for " certitude."

[2] See, for example, Gerald G. O'Collins, "Spes Quaerens Intellectum," *Interpretation,* XXII (1968), 35-54.

ageable, if not totally representative example.[3] My question of relevance has likewise been put to one work *also-Summa Theologiae-as* a representative, if not totally manageable example of orthodox apologetics.[4] In terms much too broad for the present essay, the question is being asked, as perhaps never before, of all Christian orthodoxy, of the entire tradition. But for the present, the narrow query is made: does the *Summa* say anything to *Theology of Hope?*

Moltmann himself, in a recent position paper, has seemingly answered in the negative: the *Summa* can say little if anything.5 He speaks of the traditional Christian dialectic, expressed in the vocabulary of the medieval Church, as that between *sacra dootrina* and *prima philosophia.* More recently the same statement has been made in terms of historical theology on the one hand and dogmatic theology on the other. To Christian theology, both gave a traditional unity. As a result of the Copernican revolution, the modem obsession with operational questions and the rise of relativism, Moltmann, however, has found the dialectical unity disintegrating for contemporary man. Man is no longer asking the conventional questions of cosmological teleology. In his words:

> The old forms, according to which God was thought of as the absolute, the universal, that which always pertained to everyone, are no longer accepted as a matter of course. The cosmological proofs for God's existence which related God's divinity to world experience accessible to everyone have lost their convicting power, ever since man no longer understands himself as a part of a world striving for God . . . .[6]

That Thomas in his *Summa* conceived of the meaning of human existence primarily in terms of cosmological teleology

• Jiirgen Moltmann, *Theology of Hope* (New York: Harper, 1967), translated by J. W. Leitch.

• Saint Thomas Aquinas, *Summa Theologica* (New York: Benziger Brothers, 1947), translated by the Fathers of the English Dominican Province, 3 volumes.

[5] Moltmann, "Hope and History or Theology as Eschatology." Unpublished position paper for the *Duke Consultation on the New Tasks of Theology,* April 4, 1968; cf. *Theology of Hope,*

[6] Moltmann, "Hope - - - ," p. This statement reveals that, in spite of criticism levelled against him, Moltmann does indeed offer a teleology.

cannot be seriously doubted. The goal of the world in all respects remained in rejoining God who had given it existence.[7] More particularly, in the words of P. Kiinzle, what is " especially characteristic for Thomas's moral theology is that the life of a Christian is conceived of as a return to God from whom he has gone out."[8] According to Kiinzle, Aristotle's teleological *Ethic* gave rise to this concern on the part of Thomas. Whatever its source, the dichotomy still remains; and the resultant chasm in theological methodology between Thomas and Moltmann cannot be bridged by any simple synthesis.

Nevertheless, even after the Copernican revolution, the technological obsession of modern man, and the ascendency of relativism have been granted their appropriate places of importance, and after the affirmation of " meditation "-that one heart believing can always speak to another in belief-has been accorded due respect, I would assert that the *Summa* can speak in several respects to the *Theology of Hope.* Before analyzing Thomas's relevant understanding of hope, and before enumerating some of the areas in which the *Summa* sounds a warning to the *Theology of Hope,* I need necessarily define, in sketchy and tentative terms at least, something of Thomas's perspective on two terms requisite for any discussion on this subject: hope and eschatology.

I

For Moltmann, the terms eschatology and hope approach equivalency in their respective meanings:

> In actual fact, however, eschatology means the doctrine of the Christian hope, which embraces both the object hoped for and also the hope inspired by it. From first to last, and not merely in the epilogue, Christianity is eschatology, is hope, forward looking and forward moving, and therefore also revolutionizing and transforming the present.[9]

[7] *Summa Theol.,* I, q. 103, a. 2.

[8] Pius Kiinzle, " Thomas van Aquin und die moderne Eschatologie," *Freiburger Zeitschrift fur Philosophie und Theologie,* VIII (1961), p. 113.

[9] Moltmann, *Theology* . . ., p. 16.

The movement of God's power, as for the "exodus church of Israel," comes from before the people in clouds of hope and pillars of promise. God is the coming God, with futurity as the mode of his being-for-men.

For the *Summa,* on the other hand, eschatology is viewed more narrowly, as the doctrine of the knowledge of ultimate realities, the final judgment and Parousia for eternity. [10] Bouyer maintains that even the inclusion of the ultimate realities themselves within the rubric of eschatology has already extended the term beyond its primary meaning, with a resultant danger to its verbal clarity. [11] But Bouyer also declares, and appears to echo Thomas, that the "perpetually imminent eschatological perspective is that which communicates an incomparable intensity to each moment of the life of the church and of the Christian." [12] In the words of Saint Thomas himself, the *principium* "in practical matters which are the object of practical reasoning is the last end; and the last end of human life is bliss or happiness . . . . " [13]

As R. Petry has shown, whatever the limits of the term eschatology for Thomas, it can never be conceived of as primarily "individual"; corporate life remains crucial in all aspects of eschatology. He declares:

> In the third part of his *Summa,* Thomas states even more flatly his convictions on the Mystical Body of Christ. . . . In the case of the Mystical Body, the end to which it moves is that of divine fruition and blessedness. To this ultimate end, with its full sociality, both angels and men are destined. [14]

[10] Important to remember is the fact that, since Thomas never finished his *Summa,* this tract has been supplied by editors (and extrapolators). Cf. *Summa Theol.,* I-II, q. 1, a. 5, for a telescoping of his position.

[11] Louis Bouyer, *Dictionary of Theology* (New York: Desclee, 1965), translated by C. U. Quinn.

[12] *Ibid.,* p. 141.

[13] *Summa Theol.,* I-II, q. 90, a. 2. Cf. I-II, q. 2, a. 7; and q. 69, a. 1.

[14] Ray C. Petry, *Christian Eschatology and Social Thought* (Nashville: Abingdon, 1956), p. 256. What happens to the Mystical Body in particular can be applied to the general understanding of eschatology on the part of Thomas. See also Petry's "The Social Character of Heavenly Beatitude according to the Thought of St. Thomas Aquinas," *The Thomist,* VII (1944), *65-79.*

Thus, for Thomas, eschatology delineated, at least minimally, the knowledge of final things, comparable to the " first things " *(principium),* and social in all its aspects.

Hope, in contrast to eschatology, has been meticulously defined by Saint Thomas. Among his variety of expressions, the briefest yet encountered is the simple, " hope is movement towards good .... " [15] As Conlon has demonstrated, this understanding of hope hardly proves to be an innovation; Hugh of Saint Victor, among others, had already propounded it. In addition, the theological tradition evidently provided much of the material on the subject and object of hope which Thomas simply collated. [16]

Hope as an irascible passion has its subject in the appetite, while the theological virtue of hope has its subject in the will. In both cases man's activity is presupposed. [17]

The four characteristics of any object of hope remain constant, though the actual objects vary with the type of hope under scrutiny. An object of hope must always be: (1) good, (2) in the future, (3) difficult to reach, yet (4) possible to attain. [18] On its highest level, as a theological virtue, hope can no longer include reliance upon one's own power of attainment. The human being finally relies totally on the power of another (God's grace) to bring him to hope's object (God himself) .[19] Hence Thomas can formulate concise definitions of hope, such as the following:

> The hope of which we speak now, attains God by leaning on His help in order to obtain the hoped for good ... since it belongs to an infinite power to lead anyone to an infinite good. Such a good is eternal life, which consists in the enjoyment of God Himself.20

To such statements, which specify hope by reference to its object, we shall return; at present, however, we shall observe something of Thomas's dependence on its eschatological dimensiOn.

[15] *Summa Theol.,* I-II, q. !25, a. 3.
[16] Conlon, *op.* cit., p. 80 ff.
[17] *Summa Theol.,* II-II, q. 18, a. 1.
[18] *Ibid.,* I-II, q. 40, a. 1.
[19] *Ibid.,* II-II, q. 17, *passim.*
[20] *Ibid.,* a.

II

The significance of the eschatological dimension of Saint Thomas's theology of hope has been variously appraised. The evaluation by Moltmann, already cited, contrasts vividly with that of Kiinzle, who, according to Plafoort, holds the entire *Summa* to be very basically eschatological in intent.[21] Klinzle bases his observations on Thomas's interpretation of the resurrection of Christ, that in the empty tomb " the end of time has begun."[22] Whatever his measure of actual, eschatological orientation, several aspects of Thomas's concern with" knowledge of final things " strike the reader of the *Summa.*

In the first place, as the definitions affirm, all hope is necessarily involved in the movement toward God. Thus the preposition *in* calls for the accusative, not the ablative.[23] Again, neither the blessed nor the damned may be said to possess hope.[24] Hope is conceived of by Thomas as motion rather than locus, as dynamic rather than static and as some sort of tension rather than a kind of peace.

The movement of ordinary hope, the motion towards good in this world, can be seen to be analogous to that virtuous hope which moves the subject, as indeed the whole person, toward God himself. Whether the analogy is one of proportionality or (more likely) one of attribution, the similitude evidences Thomas's linking of the movements of emotion and virtue.[25] And whether one accepts Kiinzle or thinks him to be overstating the case, the fact remains that for Thomas " the end forms the act." Therefore, the singular movement, whatever the relationship among its components (virtue, passion, etc.), is, to some degree, eschatological in orientation.

In the second place, hope as the movement in time toward

[21] A. Plafoort, introduction to a translation of the Kiinzle article into French, "La fin des temps est commencee," *La Vie Spirituelle,* CVII (1962), p. 403.

[22] Kiinzle, *op. cit.,* p. 112.

[23] *Supra,* p. *5.*

[24] *Summa Theol.,* II-II, q. 18, a. 2, 3.

[26] George Klubertanz, *St. Thomas Aquinas on Analogy* (Chicago; Loyola, 1960), pp. 11-156.

the eschaton of beatitude issues from God and not from man.[26] God both causes and allows man to hope for eternal life, by the vastly complex concurrence of causalities so integral to Thomas's theology. To explore this concept of "semi-determinism" would necessitate another whole study; but an illustration may suffice to illuminate in part the status of secondary, human causality. Having asked whether one can put hope in another man, and, by extension, in oneself, Thomas replies:

> Hope regards two things, viz., the good which it intends to obtain, and the help by which that good is obtained. Now the good which a man hopes to attain, has the aspect of a final cause, while the help by which one hopes to attain that good, has the character of an efficient cause. Now in each of these kinds of causes we find a principle and a secondary cause.... Now hope regards eternal happiness as its last end, and the divine assistance as the first cause leading to happiness.... It is, however, lawful to hope in a man or a creature as being the secondary and instrumental agent, through whom one is helped to obtain any goods that are ordained to happiness.[27]

An alternative methodology for explicating almost the same point has been explored by de Letter, who employs the fourfold delineation of causality-formal, efficient, material, and final-to show all virtues coming as free gifts *(gratis gratia)* from God. De Letter states that God is the " last cause of charity in the line" of singular causality, not just of final causality.[28] These words " final " and " last " appear so frequently in the article that one is drawn, though de Letter may not have intended such, to meditate on their meanings for Thomas. Both " final " and " last " designate sources not in time, primarily, but in hierarchy, as Copleston has brought out relative to Thomas's proof from motion.[29] The meditator comes to ap-

[26] More properly " hope pertains to the movement . . ." but the equation has been made by Thomas.

[27] *Summa Theol.*, II-II, q. 17, a. 4, and I-II, q. 40, a. 3.

[28] P. de Letter, "Hope and Charity in St. Thomas," *The Thomist*, XIII (1950), p. fl43 ff.

[28] His primary thesis is the deprecation of active hope in favor of pervasive charity. On the proof from motion, see F. C. Cople&ton, *Aquinas* (Baltimore: Penguin, 1955), pp. 110 ff.

preciate, it seems to me, a second meaning for the words, understanding them as the *terminus ad quem* of the virtues, humanly speaking. Thus while God's creative power is viewed as the *terminus a quo* for hope (as for all contingent creation), it need include also an appreciation of God's *sursum* power drawing men into the future. Since eternity is God's, man need find the *alpha* and the *omega* of his hope in God. And since God's grace does not change for man in beatitude, he must be seen as " pulling " the creation toward its teleological fruition as well as " pushing " it with his (gradually unfolding) creative cosmology.[30]

In the third place, man exists as one "on the road" (a *viator) so* long as he abides on earth. More properly, in light of Petry's insight, all men exist as *communio viatoru1n.* In the words of M-M. Labourdette, " A part of the pilgrim church [is] still here below, where the new kingdom has not yet replaced the old world. . . ." Hope, as all virtues, increases along the way;[32] as other virtues, hope can be said to be perfect in this life only in respect to its object and to its comparative position on the road.[33] It is this status of pilgrim *(status viatoris)* which characterizes the men for whom Thomas writes, as it does the author himself in writing. Their faith, hope, and love, not to mention their knowledge of God, all are complete, even at their fullest, only in comparison to previous and possible places on the way *(loci in via).* Their ethics, too, are those of the wayfarer, sharing simultaneously the tentative nature of knowledge and the certainty of the direction of truth. J. Pieper, whose work on the subject offers more devotional than analytic assistance at this point, claims that the" not-yet" of the *status viatoris* is the key to Thomas's entire theology.[34] Regardless of its relative importance *vis-a-*

[30] Though this point is difficult to articulate, it is important because Moltmann has here accused Thomas (et al.) of locating God's power for teleology in the past.

[31] M-M. Labourdettc, *"Chronique de theologie morale," Revue Thomiste.* LXI (1961), p. S75.

•• *Summa Theol.,* II-II, q. S4, a. 4 (on love, quoting Augustine *in Joan,* 3S).

[33] *Ibid.,* a. 8.

•• Josef Pieper, *Uber die Hoffnung* (Munich: Hegner, 1949), pp. 13-S3. Also see Gabriel Marcel, *Homo Viator: An lntroduetion to a Metaphysic of Hope*

vis other " keys " to the *Summa,* it is evident that " pilgrimage" does indicate the human condition, man's stance in hope.

Finally, even for the wayfarer, as was mentioned, a certainty augments the hope of the Christian. Christ's resurrection, the first fruits of the coming *eschaton,* remains the central fact upon which all virtuous hope is: granted. [35] The event of the empty tomb provides hope for the believer as both the example of what is promised and the instrument of that coming accomplishment.36 Thus Thomas can assert boldly that hope is "the certain expectation of future happiness." [87] The nature of hope's certainty *(quid* sit), although a topic of current investigation, does not pertain to our study as much as the fact of its existence *(an* sit) .[88] The certainty of hope, grounded in the resurrection, is augmented within the life of the Christian as he experiences God's continuing love. But that affirmation also, which Thomas makes several times, is not so important for us as the understanding that hope moves one increasingly toward the drawing of the eschatological reality;'[l9]

Ch-A. Bernard, whose *Theologie de l'esperance selon St. Thomas d'Aquin* is more concerned with the interaction of the various theological virtues than with hope's eschatological dimension, has included in his summary remarks· a statement which is pertinent for this discussion.[40] He says that God infuses *homo viator* with hope; God " envelops him with divine force to enable him to participate in the divine life." [41] " Hope,"

(Chicago: Regnery, 1951), translated by Cranford. Regrettably, Marcel confesses in his preface that he will never write the treatise on a " metaphysic of hope " which is needed.

•• Thomas seems to be strictly biblical here, relying, for example, on II Tinl. 1: and on Rom. 5:5. His concern with hope's certainty appears to bear out Kiinzle's evaluation.

•• *Summa Theol.,* II-II, q. 18, a. 4.

•• *Idem,* quoting from Lombard, as iliough one has clainl on beatitude.

[88] For a discussion of ilie nature of certainty, see Conlon, *op. cit.,* and Pieper, *The Silence of Thomas* (New York: Pantheon, 1957), "The Structure of Hope."

•• *Summa Theol.,* q. a. I.

•• Ch-A. Bernard, *Theologie de l'esperance selon St. Thomas d'Aquin* (Paris: J. Vrin, 1961).

[41] *Ibid., p.* 166.

he concludes, " is the movement which comes from God and depends on him to bring one to God." [42] Hope is also, £or Thomas, corporate as well as individual, coming in the future grace o£ God as it has in the past and interacting with certainty to grow.

III

On the basis o£ this brief study o£ the eschatological dimension o£ Thomas's theology o£ hope, several areas can be at least mentioned in which he appears to speak to the *Theology of Hope.*

Not willing to equate hope with eschatology, Thomas has addressed himself to the problem o£ precision in language. Thus he has separated emotional hope from theological hope, showing them to be analogous but not equivalent/ [3] In addition, although he believes that God's grace remains essentially the same for men on earth and those in purgatory, he separates the knowledge o£ final things which man can attain in this life £rom that knowledge which is to come. [44] Thus, whatever the variance in theological perspective, Thomas would appeal to the *Theology of Hope* to avoid unnecessary ambiguity.

More importantly, the *Summa* spells out in no uncertain terms where hope comes from and who receives it. As Cajetan put it: " Hope considers God immediately as agent o£ the action . . . supporting man by his aid and conducting man to his blessedness." [45] That God is the source and the object o£ true hope does seem to be much more significant than any discussion o£ the direction from which hope is infused. As R. Garrigou-Lagrange has declared, Saint Thomas's basis £or a theology o£ hope rests consistently in the Scriptures where God's gift o£ anticipation is discerned most clearly. [46] To the *Theology of Hope,* which takes very seriously both the source

•• *Idenn.*
•• *Summa Theol.,* II-II, q. 17, a. I.
.. *Ibid.,* q. a. 11.
'" Cajetan, in I-II, q. a. 3; n. II, quoted in Bernard, *op. cit.,* p. 48.
•• R. Garrigou-Lagrange, *De Virtutibus lnfusis,* quoted in Bernard, *ibid.,* p.

of hope in God and the import of the biblical witness to the source, this area of " speaking " may well be redundant; but the incessant popularization of the *Theology ...* , which does not give due credit " where credit is due," prompts reiteration of the authorities. [47] For Thomas, the habit of hope is a "pure gift of grace."

Most importantly, however, Thomas incorporates the warning of Paul (I Cor. 15 : 19) concerning the limits of hope. Indeed, with its elevation of history, *Theology of Hope* stands in danger of eliminating all life but "this life." [48] Thomas centers on man as experientially aware of this world, to be sure, but as " wayfarer" as well. He looks to Christ as also a pilgrim, the exemplary cause; but Christ is "arrived-man" in addition, the instrumental cause of hope. [49] Bernard delineates the difference:

> Our hope is not a formal participation in the hope of Christ. The head is not on the same level as the members of the body. Our hope always springs from our point of departure as sinners .... Our history in some sense is the presence of eternity in time, for by faith and hope we adhere already to the plan of God manifest in the world. But the history of Christ is the possession of eternity, descending without repentance into time. In him, the end of history is already present ... ,[50]

It appears that the *Summa* can speak to *Theology of Hope,* as the study has shown, in terms of precision, source, and limits of hope. But it can warn this movement in general and the tome in particular in some other areas-realms of theological discourse only alluded to, if even that, by the body of the essay.

In further terms of " limits " for hope Thomas provides a brief query on whether hope can delude man; he phrases it in terms of whether the young and the inebriated can have hope. [51]

[47] Cf. C. F. H. Henry, "Where is modern theology going?" *Christianity Today,* Vol. 1£ (1968), pp. 3-7.

[48] Moltmann, *op. cit.,* p. 90.

[••] *Summa Theol.,* III, q. 7, a. 6.

[50] Bernard, *op. cit.,* p. 88.

[51] *Summa Theol.,* I-II, q. 40, a. 6. *"Utrwrn in juvenibus et in ebriosis abundet spes?"* is even more candid.

He concludes that both can indeed possess hope, that hope can spring from inexperience and delusion as well as from experience. We grant that he is here speaking of the passion of hope and not the theological virtue; but his warning to the *Theology of Hope* rings out clearly to beware the source of it and to meditate on the relationship of hope to experience.[52]

Again, another brash kind of warning comes from Thomas in his treatment of despair and presumption as the twin sins against hope. *Theology of Hope* takes much more seriously the sin of despair than it does that of presumption. That for Thomas the two appear equivalent in their perversion of hope is notable. In his treatment of presumption, we note with some relief, Thomas asserts that" presumption whereby a man relies on God inordinately is a more grievous sin than the presumption of trusting one's own power - - - - "[53] Nevertheless, the *Summa* speaks its admonition.

One of the recurrent questions for the "Duke Consultation on the New Tasks of Theology" was the relationship of *Theology of Hope* to science.[54] Here again the *Summa*, by relating nature to hope, offers a word of significance. Nature does not fuse hope into man; "the light of man's natural reason " is indeed clouded by the " impulses of sinful desire." On the other hand, Thomas asserts affirmatively that " Nature inclines us to hope for the good which is proportionate to human nature"; it can be verified by moral virtues.[55] If modern science can make hopeful claims, as it seems to be doing, then should not the *Theology of Hope* acknowledge them? Does not the *Theology of Hope*, in accentuating the radical break with nature by modern man, do violence to its own argument?

The *Theology of Hope* does not speak often of fear; insofar

[52] Moltmann's subsequent works, soon to be published, take cognizance of it.
[53] *Summa Theol.,* II-II, q. 21, a. 1.
[54] The question was variously phrased by Professors Murphy, Harvey, Gilkey, and others.
[55] *Summa Theol.,* II-II, q. 22, a. 1. ·whether astronomy and physics in his day offered better endorsement of this hope than they do today remains to be explored.

as it is discussed, resurrection seems to argue for the " casting out" of fear. The stance of the "exodus church "-one of openness to God's future-replaces fear of the coming-God with anticipation of his promises. The *Summa,* in vivid contrast, assumes that a discussion of fear should follow naturally any mention of hope. In treating fear immediately following hope the *Summa* offers one real possibility for enriching the modern movement.

Thomas, as Pieper's meditation has discerned, concentrates on the positive aspects of "God's gift of fear" when relating it to hope. *Uber die Hoffnung* concludes:

> The fear of the Lord guarantees that authenticity of hope. It shuts out the peril that hope mistakes itself in *falsa similitudo:* in the presumptuous anticipation of the fulfillment. The fear of the Lord tells the hopeful man of the present day that the fulfillment "not-yet" is real. The fear of the Lord represents, thereby, the recollection that human existence, although concerned with and properly dependent upon fulfillment through the Highest Being, nevertheless is endangered by its contingency no longer. With amazing insight, Paschasius Radbert said, " the holy fear guards the pinnacle of hope." And the Holy Scriptures (Psalm 113 : say purely and simply, " Hope in the Lord, who fear him." [56]

For his part, Thomas separates worldly or mundane fear *(timor mundanns)* from the positive fears: initial, servile, and filial. Without consciously employing the term, this type of worldly fear, viz., anxiety concerning one's health, reputation, bodily needs, etc., is the object of Moltmann's deprecation. But Thomas spends more energy in delineating the constructive fears than he does in exploiting the mundane fears. Initial fear, provided from one's encounter with the gospel and its requirements, leads to both filial and servile fears.[57] It is with servile and filial fears, however, that Thomas is primarily concerned.

Servile fear, regarding God as the source of punishment,

[56] Pieper, *Uber* ... , p. 94. (Douay and R.S.V. possess no such citation, the closest being, seemingly, Ps. 147:11).

[57] *Summa TheJol.,* II-II, q. 19, a. 8. Thomas wishes to avoid concentration on the " punishment " aspect of initial fear.

does possess an element of evil.[58] However, servile fear coexists with love for two reasons: first, man, in separation from God, is already being punished, and servile fear seeks to avoid what presently obtains for the pilgrim. Second, servile fear is the cause of love of a master by a slave, hence it serves love.[59] Since it coexists with and serves love, servile fear must be viewed as good.

Filial fear remains the major gift of the Holy Spirit; it grows as one progresses along the way in love. In fearing lest we offend God or be alienated from him, as children feel toward a parent, " filial fear and hope cling together and perfect one another." [60] Fear, the reliance on God's justice, "co-inheres" with hope, the dependence on God's mercy, to bring about, for the *Summa,* a deeper understanding of the " pilgrim-age" than either could depict when taken by itself.

In sum, the *Summa* does speak incisively to the *Theology of Hope,* although one cannot minimize the differences between a medieval and a modern outlook. Because of its sensitivity to the movement of hope, the source of hope, the stance of man in hope, and the place of certainty in hope, the *Summa* can both warn and enrich Moltmann's already refreshing and revolutionary appropriation of that theological category. It declares without equivocation what is the language, origin and limit of hope. The *Summa* cautions concerning the possibility of deception, the sin of presumption, the heeding of science, and the positive use of fear, inherent in a comprehensive *Theology of Hope.*

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[58] *Ibid.,* a. 4.
[59] *Ibid.,* a. 6.
[60] *Ibid.,* a. 10.

TOWARD A THEOLOGY OF PROTEST

I

IT MIGHT seem strange-at least at first glance-to develop a theology of protest just as it perhaps seems contradictory to develop a theology of violence. I think, however, that there is a difference, since violence is related to the deepseated disease in the soul of man in his relationship to God and, intrinsically related to this, in his relationship to his brother on earth. If theology intervenes to relate this with God's Word, it can only be with the vision of sin, of its heinous manifestation in hatred, lust, avarice, selfishness and greed-made visible in the killing and maiming of violence whether of the clenched fist or of the vituperative tongue. Theology deals with violence as the metaphysic of the lesser of two evils, not of the higher law of evangelical love, even of one's enemies.

The theology of protest, however, is dramatically different, since it is, in Christianity, essentially related to the future. The future here is the perfect manifestation of the kingdom, the *Parousia* or second coming of Jesus which will be the beginning and the end of the new eon, now incipiently begun and thrust into history by and through the resurrection of the God-man, Jesus Christ. We await him with joy, expectation and holy impatience. His kingdom alone will establish among us the perfect realm of justice, of peace, of harmony, of concord, of that which sums up and brings these virtues to pass, of love. Thus Christianity essentially looks to the future, looks *to* the new eon of eschatological dimension and projects us to a future of God's work and in God's time.

Yet, there is an essential tension in the pilgrim church, in the relationship of the " now-then " and "here-not yet." That is, the kingdom has already begun in seminal action; the new man of all men has begun in baptism and in the Spirit to

communicate this new life, this new creation to the world of men. Consequently, there is a tension of growth or maturity of and for resurrection toward the future but one whose fruits of the Spirit among us has already seminally begun in the eon of time. The old has passed away but not completely; the new has appeared among us but not fully. The resurrection of Christ and his communication of the new life of the Spirit has begun in time among " these who are born not of the flesh or of the will of man, but of God" (Jn. 1: 13) and must become manifest in the works of those who claim to be his followers.

For, the essential apologetic of the New Testament is not the rational argumentation of the philosophers. St. Paul was quite adamant in pointing out that human intelligence had failed to recognize and accept the " stupidity " of the cross,

> We preach a crucified Christ; to the Jews an obstacle that they cannot get over, to the pagans madness; but to us who have been called, whether they are Jews or Greek, a Christ who is the power and wisdom of God. For God's weakness is stronger than human strength. (I Cor 1

The essential apologetic is that of *witness* to the death-resurrection-ascension of the God-man, and this witness is essentially related to a continuation of the death-resurrection of Jesus in his disciples. It is by the same spirit of Jesus that his disciples must live, and if anything comes through clearly in the New Testament, it is the Spirit of love *(agape)* which relates essentially to both God and man. Indeed, these two terminal points of love cannot be separated but are attained by the very same act of love. Thus, love is not one virtue among many others; it is the essential virtue, the dynamism and fulfillment of all the others; it is the very mystery who is God and who is man; it is the openness to life in God, to the profound realization of who and what we are.

It should be also clear that this tension of the kingdom between the " already " and the " not yet " makes Christianity essentially a protesting and dissenting religion against any idolatry of any temporal structure or institution, whether political, social or ecclesiastical. That is, God's Word, which

alone is eternal, stands over against and in judgment upon every human expression and manifestation precisely because the human is always metaphysically imperfect, limited and finite to a particular experience at any one particular moment in history. Thus to absolutize any human institution is both to be inhuman as well as blasphemous. No social, political or ecclesiastical institution is so perfect that it cannot be replaced by a better one more in conformity with man's dignity and God's glory. That is why-at least in theory if not always in practice-Christianity cannot become completely identified with any one social, economic or political system. Indeed, she cannot become completely identified with any particular ecclesiastical system or manifestation. Christianity must be a continuous critic, protestor and dissenter from this absolutizing tendency of human institutions precisely in function of her absolute future, of her " not yet " of the kingdom of her beloved spouse who is coming but who is only imperfectly present in human history.

Yet, this love is concrete and existential. It is efficacious and active, attaining the brother in the totality of his being, since his mystery is love. This person is both mystery of love and incarnation of person in flesh and bone. My love can attain him only as human love, that is, as the concrete desire and actualization of the conditions of human brotherhood as well as of divine charity. I cannot have one without the other. How can I love my brother and watch him go hungry? How can I love my brother for whom Christ died and refuse to live, eat, laugh and share together? How can I love my brother and make distinctions among those whom I will love or not love, as determined by the pure accidents of nature as race or color, or of the accidents of man as national origin? All of these defeat brotherhood, because they defeat the basic evangelical witness of evangelical love which is to make mockery of the message and life of Jesus continued in the disciple.

The fact is that the " not yet " of the kingdom sees us as yet divided in selfishness and greed, whether it is expressed in violence, racism, nationalism or indifference to the poverty

plight of hundreds of millions of men. This is the sinfulness of the " not yet " of the kingdom, and yet the " now " of the seminally wrought resurrection in the life and witness of the disciple of Jesus must make its visible manifestation in the concrete world under pain of having no Christian-evangelical witness to that very kingdom in our midst. In other words, if we have no visibility of Christian witness in love, concretely manifested in any particular or universal community, the evangelical witness has ceased to exist and the fruits of the Spirit have failed. We then have the defeat of the Gospel among men. If the Christian is Christian, the visible witness of love cannot at all suffice in a form of an " invisibility " of his faith among men, for this is a defeat for the evangelical witness of love; this is simply non-Christianity even if all the ritual of prayer, institution and ritual manage to exist:

> So then, if you are bringing your offering to the alter and there remember that your brother has something against you, leave your offering there before the altar, go and be reconciled with your brother first, and then come back and present your offering. (Mt. 5

This is what the New Testament means when it speaks about the " fruits of the spirit," that is, a visible manifestation before the eyes of men of the works of justice, of peace, of hope, of compassion and of love. There can be no living or authentic *Christian* faith in God without works of faith, and among these there is, first of all, that of caring for others " without distinction of persons": " Thou shall love the Lord, thy God, with your whole heart ... and your neighbor as yourself." (Mt. :36)

To love one's neighbor as oneself is not confined, by means of various charities, to the most urgent necessities of our brother-even though it means this also. It means above all effectively to desire for him what we desire and work for ourselves: civic rights, health, education, development, civilization and culture. It means to wage an effective war for him against the evils which we fight for our own advantage, to

do our best to eliminate the great economic and social inequalities and the oppression of man by man.

Thus, to be a Christian in the evangelical witness of love is not purely to serve God, but it is also a dynamic social ethic, a service to mankind; it is not merely a theology but also an anthropology. And although Christianity is essentially directed to the coming perfect kingdom of Christ, precisely because this kingdom has seminally begun in the " now " on this concrete earth, it must influence our actions in the realm of the earthly city of man, of fostering science and promoting civilization, as the imperfect but nonetheless a real *beginning* of the perfect justice, peace and hope of the coming kingdom of Christ. Christianity is the religion of the absolute future; however, its eschatology is not projected to a distant future, rather its eschatology has already begun here on earth. We have passed from death to life in Christ's death and resurrection in baptism, whose effects reach beyond us, even to the whole of the created cosmos. We, like Christ, have already passed from the temporal into the eternal with Christ as Lord of all creation by his resurrection. This cosmic dimension of that act is not that we thus escape the world in a form of illusory transcendence but rather that we return to the world as the natural habitat of man and for man and transform it in a dynamic immanence. Thus God's transcendence and immanence are not contradictory, but in the resurrection of Christ they are complementary in the birth of the new man, the new creation. As Vatican II put it:

> We do not know the time for the consummation of the earth and of humanity, nor do we know how all things will be transformed. As deformed by sin, the shape of the world will pass away; but we are taught that God is preparing a new dwelling place and a new earth where justice will abide, and whose blessedness will answer and surpass all the longings for peace, which springs up in the human heart. . . .
>
> Therefore, while we are warned that it profits a man nothing if he gain the whole world, and lose himself, the expectation of a new earth must not weaken but rather stimulate our concern for cultivating this one. For here grows the body of a new human

family, a body which even now is able to give some kind of foreshowing of the new age. *(Pastoral Constitution on the Church in the Modern World,* par. 39)

Thus Christ gives us a deeper meaning to our bond with the world and with history. Solidarity with the agonies and joys and problems of all men are also our agonies and joys and problems. Indeed, they thus become for us the sacrament of God's saving presence in the midst of the world: "I was naked and you clothed me, hungry and you fed me; in prison and you visited me" (Mt. 9/5 : 36) .

II

The Gospel and Violence

It is not strange, however, that today, when we speak of "dissent" or "protest," we have a tendency to identify it with violence understood in its destructive form. It is for this reason that we must carefully analyze this concept in the texts of the New Testament. This is the only way in which we can distinguish political protest from Christian protest, even if there is a correlation here. As we shall see, the difference resides in the non-violence or rather meekness in the face of the omnipotent demands of any human institution in relation to, or in contrast with, the hoped-for eschatological expectations of God.

It will be helpful, then, before we confront the Scripture texts, to define more or less accurately what exactly we mean by violence. Throughout, we shall use the term "violence" in the sense of the use of force on another person in order to make him do something against his present will. What we mean by "non-violence" is that form of action or reaction which refuses to have recourse to violent, physical, brutal or other forms of internal and external pressure to bring about a change of will in another human being or to change a situation considered to be intolerable. This refusal to have recourse to any violent means whatever for any purpose is called " meekness " in the New Testament, as we shall see.

We must also clearly understand that non-violence and meekness are not always the same thing. Many have and presently do use non-violence as one means of winning over an adversary much as one who uses violent means uses it in order to win over an adversary. This is not what the New Testament means by "non-violence." Indeed, it would perhaps be better to use the word" meekness" when speaking of the New Testament's attitude in this area. Meekness does not seek so much the conversion or the " winning over " of the adversary as it does the conversion of the person who is meek, of purifying himself in order to find the truth. The whole Sermon on the Mount is an exercise in such meekness. In Mt. 5:5 we have the beatitude of " blessed are the meek " which describes him who, when he is hurt or despised, does not menace or threaten to do the same to others, not because he is some form of philosophical stoic, impassive to pain or humiliation but rather because he follows the example of Christ who continued to love even those who injured or insulted him: " Forgive them, for they know not what they do." Because Christ loved men, he did not want to nor could he force or coerce them into belief and love in return. He is the truth and the way who must be received in love and obedience. Therefore the meekness of Christ is not in function of " winning over " others but was itself a product of his love for men whom he helped to lead to himself freely and That is why Jesus applies the term "meek" to himself in Mt. :5: "Behold your king is coming to you, humble (meek) and mounted on an ass." The relationship between " meekness " and the " ass " is significant, since the ass was an animal of peace as opposed to a horse which was an animal of war and worldly power. Jesus is meek, and the sign of this is that he rides on an ass during his triumphal entry into Jerusalem. The triumph of Jesus is not by force or violence but by love, obedience and humility.

The Witness of the Gospels

Since the kingdom of God is at the very center of the message of Jesus, we must seek the key to understanding

through an analysis of this central concept of the gospels. The kingdom has both a history and an enemy.

The whole of mankind, indeed the total universe, is divided into two contending parties. One, the sons of the kingdom or of God or of light are confronted with those who are sons of darkness, of the world, of perdition or of the devil himself. The invisible kingdom is divided between those who remained faithful to God and those who revolted. Both of these groups attempt to enlist in their obedience or revolt human beings of earth.

This drama knows an end, a final resolution whose focal points have been established by God. The writers of the New Testament were impressed by two of these: the end of time *(parousia)* and their own generation in which this eschatological drama was taking place. The heralds of the New Testament already announce and bear witness to the coming of the kingdom, of its inception already in time, so that this message comes to be known as " the good news of salvation." It is their function to prepare the way of the Lord. Thus is born a tension between the kingdom which is coming and is being born and the present generation which is dying and passing away.

The End of Time

The essential term of this mortal combat is the *parousia* or second coming of Jesus. This end is divided into two periods, one being the *parousia* or the manifestation in glory of the Son of God, the other in relation to this the spectacle of the Last Judgment which will be characterized by violent change produced by the divine anger against sin and disobedience. It is at this time that sinners will be totally excluded from the kingdom into a " second death " where there will be weeping and gnashing of teeth (Apoc. 20: 1-6).

The kingdom, as we have said, is in the process of birth and as such is characterized by pain and suffering before the final *parousia.* These sufferings are premonitions of the coming of the kingdom which were given in the final discourses of Jesus

before his passion. Jesus prepares his disciples for this by telling them to be vigilant and guarded during these painful trials and above all to persevere in faith in the midst of this suffering and pain. They are to be on guard against false prophets. In other words, they will escape the divine anger but not the violence of Satan who will seek them out in a very special way because they bear witness to him. In the face of such danger and suffering, there are only two possible attitudes for the disciple of Jesus: one of flight from such suffering or one of acceptance of this suffering in meekness and patience. These disciples of Jesus must not use violence in order to escape this suffering. If they are persecuted, their only arms must be the witness of the Spirit and their nonresistance. This meekness of the disciples of Jesus will bear witness against these evil men before the tribunal of God on the last day. This triumph of God (and with him, of his faithful) will come only on that day and hour decreed by God which will also be the vengeance of God against his enemies (Rom. 12: 19; Apoc. 6: **10).**

In the meanwhile the announcement of the good news of salvation, of the coming of the kingdom, continues what was first begun by John the Baptist (Lk. 16 : 16). Indeed, the difficult words of Jesus to describe the coming of the kingdom are not very clear: " From the days of John the Baptist until now the kingdom of heaven has suffered violence, and men of violence take it by force" (Mt. **11** : 12) . The prophecies concerning the coming of the kingdom have ceased in Jesus, and all must now take a position with regard to Jesus. There are those who accept this without hesitation and with full acquiescence in the combat that is before them for accepting Jesus (Lk. 14:

These disciples of Jesus must " be in the world," that is, among men everywhere in order to bear witness to Jesus. They cannot flee to the desert or to a place by themselves but must be in the midst of men to bear witness among them to the good news of salvation (I Pt. 11). They cannot be "of the world," that is, of the attitudes and thinking of other men,

but they are sent " into the world " which is entirely under the power of the evil one. Thus there is a confrontation between the disciples of Jesus and the power of the devil, exercised by his disciples who are the children of darkness (I Jn. 5: 19). The combat is now enjoined. The faithful ones are loyal to God, and they are those who accept from Jesus the laws of the kingdom (the Sermon on the Mount and Jn. 17: 15-18). The others on the outside neither recognize nor obey these laws of the kingdom (I Cor. 5: 12).

Those who are " outside of the kingdom " are essentially characterized by violence and coercion both in their relationship with Christians and with each other.

In the relationship between the sons of darkness this violence goes as far as to enslave each other and to prostitute themselves with idolatrous practices (I Cor. 1!2: 2). Slavery is recognized by the Scriptures as the result of violence among men (I Tim. 6: 1) and is a perfect expression of the human violence exercised by those who are outside the kingdom. The secular power habitually uses violence in its task of ruling. Governments usually weigh heavily on those whom they rule. Indeed, the Apostles themselves appeal to such power against those who are evil among pagans and unworthy Jews (Rom. 1: 29; II Tim. 3 :3).

Secondly, this violence is also exercised against Christians themselves, for example, exercised by government against Christians who were in fact slaves. But there is another form of violence exercised against Christians insofar as they were Christians. The Lordship of Jesus over all of creation is rightfully his by and through his resurrection, but in the meantime, between the resurrection and the *parousia,* Christ's kingdom has not as yet been fully established; during this period, the power of Satan is still exercised, above all against the disciples of Jesus. Those outside the kingdom often use the power of the secular authority against Christians (Lk. 10: 18; I Cor. 10: 11; II Tim. 2: 26). This was so common that Christians considered persecution to be the normal state of affairs.

Conduct of Christians

In the conduct of Christians we must carefully distinguish between their relations with each other and those with persons who were " without the kingdom."

Between Christian brothers conduct must be such as to lead to a greater fraternity. It is true that even among the disciples of Jesus there can be injustice and difficulties can divide them (James 2: 1-4), but the truly spiritual must continuously pardon and forgive, reject the law of talion, be reconciled and even allow themselves to be deprived rather than demand what is theirs (Mt. 18 :22; I Cor. 7: 7) . The fruits of the Spirit must be born out in the disciples' relationship with each other; these fruits are meekness, kindness, moderation, peace, humility, compassion, the control of passions (which are at the source of much violence), and in all things the dominance of liberty by the supreme virtue of love.

There are two forms of constraint among the disciples of Jesus which appear to be beneficial and salutary. The first is that of the Holy Spirit when He moves the Church to change or to move in a certain direction, even when this seems to go counter to the plans of the Apostles themselves. The other form of restraint, which also comes from the Spirit, is manifested more regularly in the consensus or pressure of the fraternity or of authority. It is true that authority has above all the duty to serve and to preserve itself at all times from arrogance and vainglory. Yet, when the essential interests of the community are put in danger, such as the truth of the Christian message, the reputation of the Church, good order and unity, then this authority can have recourse to the ways of law even to excommunication (Mt. 18: 17; Acts 5: 1-11; I Cor. *5* :5; I Tim. 1 :20).

With regard to those who are " outside of the kingdom " the relationship of the disciples must be of another form. The powers of the world are controlled by Satan and, as such, persecute the disciples of Jesus. The struggle is long and hard, without cessation or pity. The Christians are assisted by the angels of God and the Holy Spirit. It is this Spirit who uses

the disciples in order to deliver men from the power of the evil one (exorcism). This is the sign or sacrament of the presence of the kingdom, as are the remission of sins and the consequent good life of these men.

With regard to human institutions the Christian attitude is more complex and should be analyzed in greater depth. There two series of problems which interested these Christians and which entailed specific responses: the problem of constraint which was exercised on them as members of society, and the problem of violence which came to them precisely because they were Christians.

In the first case, God appeared to Christians to authenticate the legitimate power of civil authority from the fact that God has put such authority in a ruling position. Therefore God is indirectly present and served in the restraints which these authorities impose in the service of the common good which they serve. St. Paul was very sensitive to this. Therefore, the Christian, remaining in the state where God has called him, must pay his just debts, be subject to the king, the slave to his master, even the soldier to the publican (Lk. 3: 12-14). The Christian sees a certain presence of God in these men and affairs; yet, this presence is provisional and very different from that which will be manifest-soon-in the kingdom of the glorious Lord Jesus where God shall be all in all (I Cor. 15: 27-28). Indeed, the Christian prays for the peace of the City of Man (I Tim. 2 : 2-8). This terrestial peace can aid men to come to the truth and God is the God of peace of all men (I Tim. 4 : 10).

What should the response of Christians be to the civil authority when it persecutes them because they are Christians? Violence in any form is forbidden, even if certain passages of the Scripture are difficult to explain:

> And he said to them, " When I sent you out with no purse or bag or sandals, did you lack anything?" They said, "Nothing." He said to them, " but now let him who has a purse take it, and likewise a bag. And let him who has no sword sell his mantle and buy one." (Lk. 22 :25-36)

Perhaps this is a form of irony, since later on in the same passage he says in response to the disciples who actually have a sword, that " that is enough." Christ intended the metaphorical sense, but the disciples understood him literally (cf. Mt. 10: 34). Christ wanted to emphasize the crucial character of the situation. In any case, other Gospel texts (Mt. : Jn. 18: 1.1; Apoc. 13: 10) show clearly that violent resistance is forbidden to the Christian. The supreme example is that of Jesus himself who repudiated all violence, even when it was patently unjust (I He accepts an angel to console him during his agony, but he refuses the sword of Peter (Mt. 53).

Thus, if it is true that the Christian cannot resist violence by violence, what can the Christian do to resist or to oppose? The Christian who was also a slave was oppressed by the prevalent authority, as indeed Christians in general were continuously persecuted for their faith by the civil authorities. Their only response could be that of meekness of the beatitudes (Mt. *5* :4) . This meekness of the Gospel is not a form of weakness or lack of conviction. On the contrary, such an attitude required the greatest courage and, indeed, the very strength of the Holy Spirit. There is always the essential duty to bear witness to Christ in the midst of the world, even in the midst of violence and police action. The meek and humble of heart must react with strength and eloquence, even with a certain form of just anger (Mt. :13) . This testimony of theirs will be met by violence on the part of the civil authority. The disciple will not resist them, even giving up his goods to them (Jn. 18 : Apoc. 16 :*35;* I Peter 3 :15) . This evangelical meekness is not prompted by some form of stoical indifference to matter or material goods'-as indeed some forms of non-violence in fact demand.

This evangelical meekness is found in the very spirit of the Gospels, in the Sermon on the Mount where the word "meekness " can also be translated by the words " poor " or " humble." These meanings find their full signification in the other characteristic of the Sermon such as merciful, peacemaking,

in the disciples' relationship to the public authority and to those "outside of the kingdom." Thus we have a general spirit throughout the Sermon on the Mount which is the attitude of the poor in spirit, of the poor of Yahweh, in the Old Testament. The *anawim* of the Old Testament find their description in the second book of Isaiah. The servant of Yahweh is humble or meek before his adversaries and killers for the purpose of redeeming them from their sins. The suffering servant of Yahweh has the same characteristics of those whom Jesus describes in the Sermon, characterized above all by suffering unjustly at the hands of evil men (Is. 42: 2-3; *50:* 6).

This form of mediatorship taught Christians how futile it was to trust in purely human means either to solve the problem of suffering or to alleviate it. Even at the time of Christ we have the example of the Zelots who were trying to free their country from the invasion of the Romans and who used violent means to accomplish this end. Even the Essenes of Qum Ran attempted to accomplish the end of the "restoration" by means of purification, prayer and penance (cf. Acts 1 :6) . Yet, finally, it can only be God who can do this by his decisive intervention in history. The kingdom can become the object of longing prayer for the Christian but not a project or endeavor to be brought about by the artifice of man (Lk. H: 54). The Christian knows that the kingdom is pure gift, descending from above, into which he must enter; it is not the accomplishment of Yogi, of learned men or of the construction and philosophy of man. It is in this sense that the poor affirm the discontinuity of the kingdom with all human endeavors and thus keep their distance from the artifices and constructions of man. That is why the Zelots were rejected unequivocally by Christians, since they wanted to introduce the kingdom of God into the world by the sword.

The Promised Land for the Meek

Thus this evangelical "poverty" is less a social condition than a spiritual attitude, even if the New Testament does in

fact establish a form relationship between the two. The poor man in the New Testament (whether socially indigent or not) is directed with all of his soul to the kingdom which only God alone can make appear among men at the time decided by him (Lk. 17: Here on earth this kingdom has appeared but only partially and imperfectly, and that is why the Christian on earth feels like a pilgrim and stranger as he traverses time toward the full coming of the kingdom. The promised land is not the material land of Palestine but the truly holy land which is the kingdom. The happiness of the Christian is secondary to this great expectation.

In the meanwhile, while he is still in exile, the essential task of the Christian is to be obedient to God's will and commandments given to him by Jesus and the prophets. The poor man accepts the trials of suffering which this will bring him, sacrificing all that he has and is in meekness, not in the spirit of hope for an immediate victory over his enemies. He does this not to disdain the goods of this world nor to be impassive by injustice, since he will see God's wrath and anger finally bring about perfect justice in the full manifestation of the kingdom.

It is this evangelical meekness which will be the most visible facet of this poverty of the Christian. It has no meaning in and of itself but seeks in hunger and thirst for true justice which is that of the kingdom (Mt. *5* : 6) . Such meekness by Christians works among men insofar as they are moved by the Spirit to accept this testimony, but, in the final analysis, the Christian hopes in nothing human; he hopes only in God. God is meek and can exercise anger, but it is only he who can exercise this anger and violence. The cause of the poor man is in God as well as his hope, and he will not be deceived or disappointed.

This teaching on violence is very clear in the texts of the New Testament, and yet, this teaching raises still further problems for Christians. We know in fact that Christians have taken the message and that it has influenced their lives, thought, philosophies, cultures and civilizations in the terrestial city of man. What shall we say of such a traditional response?

When the New Testament considers the relationship between the socio-economic organizations of the world with the kingdom, it usually underlines only the polemical, and other aspects are passed over in silence. It has no word of encouragement for those who wish to revolt against unjust structures. One would almost say that, for the New Testament, these injustices are almost normal, a fatal part of human life, which can be corrected only by God at the last judgment. It cares as little for non-violence as it does for absolute pacifism. The revolution of Christianity from on high actually turns them away from other revolutions in the sense that the first actually is so great that the latter are inconsequential. Neither the" social gospel" type of Christianity nor the "integral traditional" form of Christian expression would make any sense for the New Testament. We simply cannot attach any ideology onto the texts of the New Testament.

We call this a clear case of abstention from judgment on worldly revolution because of the power, revolution and overwhelming fact of Christianity. We must certainly attempt to demythologize many of the historical reasons which confronted the New Testament; yet, there are certain aspects of the problem which we would do well to examine and meditate on.

First, the New Testament relativizes every organized political, social, economic human community. God's presence is contained in them to a certain degree insofar as they promote peace and justice. Yet-and this is very clear in the texts-every political power must be seen by the Christian as absolutely relative. This is just the opposite of what human and political communities try to do when they are in power. They tend to make themselves gods which no one can question with impunity. Indeed, as past history has shown, they want to become "Christianized" so as to become absolute on earth. The Gospel is a perpetual rebuke against such an attitude, and that is why the Gospel often is an enemy to civil authority. This applies to forces of " law and order " as it does to the mystique of " revolution."

Secondly, if the Christian has become Caesar (he is today

democratically orientated) , it must follow that the use of violence is a possibility for him. The texts of the New Testament were written during an autocratic rule and the question was never really posed as we have it today. Therefore we are in the presence of a whole new problem, indeed a form of dualism. Perhaps this can be a healthy form of tension between the demands of the kingdom and the demands of human institutions. It is a new problem for each generation of Christians and cannot be solved by simply consulting the solutions of the New Testament for our problems. Certainly, the ends and the means of human organization must be influenced *by* the Gospel; but this cannot be a simple deduction and conclusion from situations solved in the New Testament to solutions to problems today. There will be a dialectic, an influence, but, in the final analysis, we must find our solutions for our problemr. for today.

III

Thus Christianity is a protesting religion by its very nature but in an absolutely non-violent way. The tension between the imperfect presence of the kingdom in the " now " and the perfect and final coming of the kingdom in Christ Jesus necessitates a continuous act of protest against the natural selfishness, egotism, hatred and their by-products: nationalism, racism, militarism and world poverty. This continuous struggle between the " old man " and the " new man " resides precisely in this. It was the example of the Hebrew prophets. It was this God who revealed himself through a slave people's striving to achieve freedom and dignity for themselves. It was a continuous action of purification, lost again, found again, throughout Israel's sinful and repentent ways. This same God called upon men to deal justly with the widows and orphans, the poor and the weak, for it is he who pleads their cause and provides them hope beyond their greatest hopes. It was this God who protested through the prophets against the injustices and insensitivity of the brotherhood of not only the chosen people but the pagan peoples as well. For God's law speaks not only about matters of prayer, rite and ceremony, but it also

defines our ethical obligations to each other and society. So the prophets made it clear that no society that remains corrupt and iniquitous could long endure. In the name of God the prophets inveighed against wealthy landowners who stole property, judges who accepted bribes, and perverted nations that failed to honor treaties and ruthlessly exploited military power. The religion of the Old Testament was not only concerned about sin and grace, atonement and salvation-it also speaks pointedly and specifically to the problem resulting from maldistribution of property, the organization of state machinery and the exercise of political and military power. Justice had to be fulfilled before any sacrifice could be offered to God.

The New Testament did not abrogate the ancient law but simply fulfilled it. Christ gave the Old law a new spirit, a new orientation and all pervading guiding force: love.

This aspect of fraternal charity appears in John 13:35. The charity of the community becomes the sign whereby one is able to recognize the true disciples of Christ. This aspect is also found in the Synoptics (Mt. 5: 14-15). The community, by the quality of its fraternal charity, will be a sign to the world. This sign would be the prophetic action which should provoke surprise among the peoples of the nations. The most important aspect of fraternal charity is its *source,* for this charity does not have a human but rather a divine origin (17 :21-23) . The source is the life of God which is the love uniting the Father and the Son. Christ has established the community of the Church to which he has communicated this love and in which there should be an exchange of love which exists between Father and Son. This love is the origin for the love that the members are to have for each other, and this characteristic of unity in charity will show the world that the Father has sent the Son. Thus the fraternal charity of Christians has its source in the love of Christ and in the love of the Father for the Son and the Son for the Father. The manifestation of fraternal charity will be a source of revelation to others of the love of God. There must first be the manifestation and experience of this charity, even before the word is preached, for the

Gospel stresses that charity teaches it. One must preach first by his acts before he preaches in words. The life of charity is necessary in order for the preaching to be effective. In the measure that one sees the charitable life of the community will he be drawn to God. Active love expresses the ever-present reality of the Gospel. Inversely, where there is no charity, the essential sign is missing. In this perspective John is not considering the witness of the individual but stressing the importance of the witnessing that must be given by the community. Although there may be other characteristics of the community, charity is the principle one and the source of the others.

It is through the experience of the love of God in Christ that Christians thereby can communicate with God and by him with each other. This is the radical basis for the divine life in the community as detailed in the fourth gospel. It is from this radical source that any divine communion is even possible in the Christian dispensation.

Christ throughout the gospels, repeatedly protested in the name of love and of brotherhood. The parable of the Good Samaritan showed the essence of love in concrete and not nationalistic jingoism; he emphasized the aspect of forgiveness of real injustices done to us by the brother such that, if we do not forgive them, we will not be forgiven by God. He protested the substitution of ritual for mercy and compassion. He protested the hypocrisy of the status seeker, the wealthy who pile up goods for their damnation, the unconcern for the brother, where he so identified the poor and destitute with himself that those who do or do not do good for them do or do not do good to him. He protested against the pomposity and show of the rich, of the official, and bade his followers to be always honest, serviceable and humble. He protested the violence of men, telling his disciples to turn the other cheek and-the greatest manifestation of love-to love their enemies; he tells them that those who live by violence will perish thereby. He protested against the phoniness and the " better than thou "-ism by purposely eating and drinking with the archtypes of

sin, the publicans, and the prostitutes. He protested against the rich roan-the parable of Dives and Lazarus-whose sin was not richness but his lack of brotherhood, his failure to see the reason for his material wealth (fraternal love). He protested against phony religion which made a ritual (the Sabbath) more important than fraternal charity, than helping one's brother in any time of need, inclusive of the Sabbath. He protested so much that the main charge made against him at his trial was that " he disturbs the people with his teaching all over Judea; it has come down all the way from Galilee, where he started, even to this place .... We have found this man inciting our people to revolt ..." (Lk. 23: 2-4).

And yet, even the most " realistic " of us are uneasy over this whole mental construct. As one religious author once put it: " If the religious mind of our time does not allow man to defend what is noblest in him, will there by any future faith which is based on the possibility of freedom? " Indeed, as it stands, the conclusion is blasphemous. The whole of the New Testament, its inception as well as its growth, was under a complete totalitarianism. The real theological question for our time is perhaps just the opposite of what the above quoted author concluded: Is any future faith possible-or its understanding-in a regime of democratic freedom such as we enjoy in the West? It is those Christians behind the " Iron Curtain " who are beginning to understand the true meaning of Christian faith after the Church has been stripped of her traditional political and economic power of privilege and pride. Thus humiliated by God, the Church can thus (possibly) come back to her pristine moral witness in poverty and in suffering. It was Albert Camus, an atheist, who said that the *two* great virtues needed today by the Church are poverty and boldness. If she is bold in her moral witness, then she is most certainly going to be poor. When the Church becomes rich and esteemed, the ancient *hubris* cannot be long withstood, and she is in grave danger of forgetting that her Savior triumphed in humiliation and death in order to live in obedience. We so strangely absorb the views of success, pride and power of the world, even

its definitions of" freedom." Christ's freedom was to obey the Father in death to life by humiliation and suffering. How can it be that his Church which is his body could hope to triumph in any other way? How else can she understand the words of Christ: "Truly, truly, I say to you, unless a grain of wheat falls into the earth and dies, it remains alone; if it dies, it bears much fruit " (Jn. 12 :24) .

The Church must manifest her preferential love and prophetical witness for the poor in concrete ways in order to benefit the great masses of poor all over the globe. The world today expects more from the Church than mere expressions of love or enunciations of general principles; it asks for tangible and concrete proof of this love. The whole Church must take a stand, clearly and courageously, in favor of the poor every time they are victims of any injustice. This evidently implies a more forceful stand on racial discrimination, medical aid for the aged, urban renewal in all of its forms. Thus her solicitude for social justice in concrete examples will become a proof of her love for the poor. She must rebuke public authorities when they fail in their obligations to take the necessary measures to solve or alleviate the most urgent social problems of the day.

The Church must continuously remind herself and all men that the rich have no special claim among the people of God, except that they have been given a special obligation, by virtue of their wealth, to be servants of God's poor. They themselves must be poor in spirit, and this attitude should characterize their actions. The Church has a heavy responsibility to remind the rich that, unless they are poor at least in this sense, their chances for salvation are very slim indeed. The poor belong to the Church in their own right, as born citizens of God's kingdom who have a first claim to his mercy and love. In the Church of God, they have the primacy of honor. The Church must always uphold this hierarchy of spiritual values not only because her Divine Founder did so before her but also in order to neutralize the idolatry of riches which in so many ways dominate modem society.

In such protest she reminds men of the inescapable and essential truth of Christianity: God has loved us in Christ, has touched us so radically, so completely, so profoundly, that we are radical brothers responsible for each other in love and solicitude. Any human condition which substracts from the universal brotherhood, is the mortal-and only-enemy of the Christian.

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THE PHILOSOPHICAL DIMENSIONS OF THE ORIGIN OF SPECIES. PART TWO

VI. THE ERROR OF UNIVOCALLY ONTOLOGIZED KIND-ESSENCES

From the title of this section one might expect it to develop the contention that the specific structures causally accounted for by contemporary science are contrarily related to the texture and sense of the traditional principles governing the recognition of specific distinctions in the world of bodies. Perhaps unfortunately, we must develop a rather more complex contention.

The contention to be developed at this point is that an ontological survey of the landscape of Darwin's world shows that, so far as its metaphysical structure is concerned, the knowledge of evolutionary species has not altered the structure of the traditional species problematic but has, on the contrary, clarified its secondary implications so as to make its options clearer and their alternatives more definite. In showing this, the survey in question shall have, on the one side, to clear away the morass of philosophical perplexities in post-Darwinian thought due not to the accumulation of evolutionary data (as Dewey thought and as commonly supposed) but primarily and directly to those ambiguities and uncertainties latent in Classical Antiquity's notion itself of species, whose features the labor of evolutionary research has forced to the fore. This will be the direct concern of the present section. On the other side, it will remain to show that the forthright acknowledgment and philosophical resolution of these no longer latent ambiguities and uncertainties render the evolutionary data themselves more intelligible in their own line of explanation which is not mathematical (species are not numbers) but that of natural philosophy, wherein are assigned reasons for the changes that never cease around us. This will be the concern of Section VIII below, where the problem of the criterion of evolutionary progress at last comes into view.

Mortimer Adler was perhaps the first to see clearly and perhaps the only one to state clearly that " most of the philosophical perplexities in post-Darwinian thought are due to ambiguities and uncertainties in the notion of species itself rather than to the discovery of any radically significant facts." [153] The ambiguities and uncertainties in question, I think, can be traced to seven sources, four of which are matters of properly philosophical argumentation, one socio-·cultural, one psychological, and one theological.

1) Most fundamentally, it was the enculturated conception of the eternal heavens which deflected even the most penetrating of the classical and medieval analyses of the ontological character of the natural kinds encountered in common experience.[154] Since the unchanging

[188] *Tke Problem of Species,* p. 10.

[•••] For Aristotle and St. Thomas, it was the eternal space-time of the celestial spheres which determined the place and order of sublunary bodies, and so tile rigid necessity and formal immutability of their natures. The Aristotelian essences of material beings do not have their cosmological reference to what we understand today by the physical environment but to the unchanging heavens which, as instruments of the separated intelligences, were regarded as the *causa regitiva,* the governing cause, of tile physical world. E. g., cf. St. Thomas, *In III Met.,* lect. 11, n. 487: "... in the twelfth book [1078a14-1078b17; in *Comm.,* lect. 9, " The Number of Primary Movers "] . . . the Philosopher shows that tile first active or moving principles of all things are the same but in relation to a certain order or rank. For first indeed are tile principles without qualification incorruptible and immobile. There are, however, following on tllese, the incorruptible and mobile principles, to wit, the heavenly bodies, which by their motion cause generation and corruption in the world." In Bk. VII, lect. 6, no. 1408, in connection with the question of spontaneous generation, reference is similarly made " to the power of the heavens, which is the universal regulating power of generations and corruptions in tllese lower bodies. . . ."

For a full discussion, see Thomas Litt's study of *Les Corps celestes crons l'univers de saint Thomas d'Aquin* (Paris: Nauwelaerts, 1968), from the "Introduction " and " Conclusion " to which the following observations indicate the justice of my own allegations in this matter: "L'opinion courante, dans le monde des specialistes de S. Thomas, est que la theorie des corps celestes reste parfaitement extrinseque a l'enseiguement philosophique ou theologique du saint docteur. Et ce qu'il y a d'etrange, c'est que cette opinion, non seulement est adoptee communement sans preuves, sans examen, mais qu'elle ne se formule meme pas. Non seulement on escamote les corps celestes sans demontrer qu'on a le droit de les escarnoter, rnais on les escamote sans meme le dire. . . ." (pp. 5-6) "Mais il y a au rnoins

> spheres determined and governed the place and order of sublunary bodies, guaranteeing the rigid necessity and formal immutability of their natures, there could be no question of a speciation process altering across the ages the visible features of the natural world.

deux points de l'enseignement de S. Thomas ou les corps celestes ... entrent vraiment dans la doctrine elle-meme, ou, par consequent, on altere ladite doctrine, si on les escamote ... d'abord quant a la theorie de la matiere et de la forme." (p. 6) Deuxiement, quant "ala doctrine des series de causes subordonnees essentiellement." (p. 9) Mais aussi "il y a un troisieme point ou Ia theorie des corps celestes a eu une influence intime sur la doctrine philosophique de S. Thomas, et c'est, ni plus ni moins, la tres generale et tres fondamentale theorie de l'acte et de la puissance. L'univers de S. Thomas etait fait d'etres qui passaient de la puissance a l'acte, c'est-a-dire, de !'imperfection a Ia perfection correspondant a leur espece. . . . lei encore, par consequent, une adaptation est necessaire, si l'on veut transplanter la theorie de Ia puissance et de l'acte dans notre univers a nous." (pp. 11-12) "Les ... chapitres de cet ouvrage montrent [que] ... Ia *metaphysique* "-ou bien, la *cosmologie* ou "scientia naturalis "-"des corps celestes ... est incontestablement une piece constitutive de la synthese philosophique du Docteur commun et elle porte la marque de son genie propre: ses conceptions sur la nature et !'action des spheres celestes prennent place dans une vision grandiose de l'ordre universe!; tous les aspects de cette cosmologie typiquement medievale se completent d'une maniere rigoureusement coherente et revelent !'esprit de synthese si caracteristique de la pensee du maitre." (p. 367) " La cosmologie des spheres celestes joue egalement un role dans Ia synthese *theologique* de S. Thomas." (p. 370) " Une . . . question, capitale pour les thomistes actuels, se pose aussitot: le systeme philosophique de S. Thomas peut-il etre ampute, sans inconvenient serieux, de la pseudo-metaphysique [pseudo-cosmologie] des spheres celestes? lei une distinction importante s'impose. n est impossible de comprendre et d'exposer fidelement le systeme elabore par S. Thomas au XIII• siecle en passant sous silence sa cosmologie celeste. • . . Mais le mouvement de renaissance thomiste ne peut. pas etre et ne veut pas etre une restauration servile du thomisme medieval. L'ecole thomiste contemporaine entend s'inspirer des enseignements du Docteur commun dans la mesure ou ils s'averent capables de promouvoir l'essor d'une philosophic authentique, repondant aux requetes de la pensee critique. Dans une telle entreprise, il est possible de reprendre a s. Thomas les theses essentielles de sa metaphysique tGut en sacrifiant les conceptions pseudo-metaphysiques et pseudo-scientifiques de sa 'physique celeste'. Celles-ci, en effet, sont des applications erronees ou imaginaires des principes metaphysiques, elles ne conditionnent pas ces principes.

"Mais il ne suffit pas de supprimer, ii faut remplacer. Les philosophes thomistes d'aujourd'hui se trouvent devant la tache redoutable de mettre sur pied une nouvelle cosmologie, une nouvelle philosophic de l'univers materiel, et notamment une reponse valable au probleme de Ia finalite dans l'univers materiel en meme temps qu'une epistemologie et une critique des sciences. L'oeuvre est a peine commencee. L'enquete qui s'acheve ici montre combien cette oeuvre est necessaire." (p. 872)

This socio-cultural background made it all but inevitable that the metaphysical notion of essence as a radical kind should be directly applied to all the natural kinds which are intuitively recognized, such as birds and fishes and oysters, even though each of these groups combines a multitude of differentiae and cannot be classified by a single difference as in a dichotomy; and even though, according to the metaphysical definition of an essential difference, things are constituted as distinct in kind only if they differ by a single ultimate difference or formal factor-differ the way traditional philosophy could distinguish only between corporeal, living, sensitive, and rational.

3) This equivocation in the application of " essence " to the natural kinds inevitably led to a focal reduction of ontology to logic, to the extent that it was necessary to predicate essential differences and thus to distinguish the species of nature not on the basis of properties in the strict sense but on the basis of a syndrome of accidents interpreted as extrinsic and empirical signs of the property convertible with the essence (see fn. 157 below) .

4) Just as in order to maintain the equivocal use of the notion of essential kinds it became necessary to supplant the ontological notion of property by the logical notion, so as a result of ambiguous criterion of specific differences the ontological problem about species (how many " essential " species or radical kinds are there?) entered into a circular interdependence with the epistemological problem (how many " essential " species or radical kinds do we know?) .[155] For a long time this covert and unnatural symbiosis of ontology with logic went unnoticed; it seemed to entail no more than the fact that our knowledge of nature is imperfect and that, so long as observing and thinking men are at work, there is always the possibility that new species may be discovered. But, as the

[155] See fn. 16 *supra.*

investigation of nature progressed, it not only became clear that new species in the sense of natural kinds were there to be discovered, it also became clear that none of the natural kinds were fixed in form [156] and that there was

[156] " Pla<;ons-nous maintenant au point de vue de Ia nature prise au sens strict de ' principium et causa motus et quietis ejus, in quo est primo et per se, et non secundum *accidens.'-Natura determinata est ad unum.* Voila un priucipe dont on ne cesse d'abuser. On se fait d'habitude une idee trop homogene de Ia nature, comme si toute nature etait egalement nature. Ne faudrait-il pas dire plutOt qu'il n'y a nature que dans Ia mesure oil Ia matiere et Ia forme sont determinees? Si Ia forme avait d'elle-meme une determination parfaite, elle ne serait plus nature. Remarquons que nature se dit non seulement de Ia forme, mais aussi de Ia matiere du compose." Charles De Koninck, " Rkflexions sur le probleme de I'indeterminisme," *Revue Thomiste,* XLIII (1937), pp. See John of St. Thomas, *Cursus Philosophicus,* II, pp. 180 ff. (Reiser ed.).

This point is important and difficult enough to require a decisive clarification. Such is achieved, I think, in the following text from Adler, where in the form of objection and reply he is defending the view that there are a small number of ontological or essential species (radical kinds), definitely less than ten, against objections raised by those of the view that there are a very large and undeterminate number of such species. The former Adler refers to as the " first position " or theory, the latter as the "second." (From *The Problem of Species,* pp. 195-8)

"Objection 4. In addition to those already cited (Obj. 3 *contra* 1) [see fn. 157 below], there are other well-attested facts which are difficult to explain according to the theory of the first position. The facts of procreation in the sphere of living things amply testify to the production of like by like. It is not simply that plants reproduce plants, and animals animals, but that this kind of plant uniformly tends to procreate organisms of the same kind, and similarly in the case of kinds of animals. Such uniformity in generation, furthermore, is connected with the aggregate of traits which constantly and peculiarly typify a kind of plant or animal; in other words, if a given kind is distinguished by an aggregate of traits found among all its members and only among them, the offspring will manifest the same traits in aggregate, and this is what is meant by like producing like. Thus, Monaco defines a species as ' a collection of individual living things which preserve the same powers and the same type through the generation of one from the other • *(Praelectiones Metaphysicae Specialis, Pars II: de viventibus seu psychologia,* Cap. I, Art. V, Th. XXIV; Rome, pp. 174-6); and his definition would hold for other accidents than power which, taken together, constitute the type.

" Now, it can be learned that Monaco and others, who take genetic uniformity as a sign of specificity, are right, by applying a fundamental principle to the facts cited. According to St. Thomas, ' the likeness of the begetter to the begotten is on account not of the matter, but of the form of the agent that generates its like' *(Summa Theologica,* I, 119, ad Furthermore, the substantial form is the term of generation (i. e., substantial change) . Hence to say that like generates like, in the reproduction of living things *(Summa Theologica,* I, 118, 1), is to say that the likeness between the begetter and the begotten must be in regard to substantial

no reason to believe that the syndrome of typifying traits by which the natural kinds could be classified were the

form. Wherefore we must conclude that if this kind of plant or animal generates its like in kind, i. e., if roses generate roses, and potatoes potatoes; if camels generate camels, and sparrows sparrows,-then all of these many kinds, which preserve their type throughout a series of generations, must be species. Otherwise, the term of generation would not be a substantial form, which is impossible. So it is shown that *plant* and *animal* are not infima species, but extensive genera including many specifically distinct kinds.

"Reply Obj. 4. Here as before the facts are readily admitted, but not the interpretation which the objection puts upon them. The interpretation is rejected for reasons which have already been made clear, namely, the role of signate matter in generation (Reply Obj. 3 *contra* 1). The signate matter, which is determinate not only in dimensions but in other accidental respects, is the source of racial and familial accidents, as well as individuating ones. Hence, the uniformities in biological reproduction are due partly to the substantial form, in so far as the offspring are like their ancestors in species, and partly to the signate matter, in so far as the progeny resemble their procreators in merely accidental respects.

" This will be seen at once if the facts are re-considered. There is uniformity in the generation of men of different races; thus, caucasians generate caucasians, and negroes negroes, if the breeding is restricted to individuals of the same stock. But we know that these are races, not species, and hence we must admit that this generation of like by like cannot mean that the term of generation is a substantial form, taken simply. It must rather be regarded as a substantial form (the principle of specific human nature) subject to further accidental determinations of a racial order. There is no more difficulty about this than that one individual should procreate another which is individually different because the substantial form which is alike in both begetter and begotten is, nevertheless, individuated differently in each, i.e., subject to further accidental determinations of an individuating sort. Nor need the begetter and the begotten always differ in their individual traits; they may also resemble each other in various accidental ways; but this cannot be due to their likeness in substantial form, since contingent accidents do not follow from the form. Hence it must be due to the condition of the signate matter in generation.

" In short, both racial a.nd individual similarities between ancestors and progeny can be explained in the same way by reference to the role which signate matter plays in generation; in fact, they cannot be explained in any other way, because these similarities are with respect to contingent accidents, and they cannot be due to the substantial form. It does not follow, therefore, because roses generate roses, or camels camels, that these ' kinds ' are species. If there were other and independent evidence that *rose* was a species, there would be no need, of course, to have recourse to uniformity in generation to prove the point. But since such evidence is either lacking or not relevant, the facts of generation by themselves are totally insufficient because they can be, and must be, otherwise interpreted.

" *The error* which the objection makes is to suppose that form is always the principle of sameness and matter of difference; whereas, as we have seen (Reply Obj. 3 *contra* I), things may be specifically different in respect of form, and alike because of material accidents. And this applies also to the like and the unlike

> signs of a single specifying difference, of a property in the strictest ontological sense.[157]

in the process of generation: matter, as signate, is the source of both differences and similarities of an accidental sort, whereas substantial form is the principle of essential sameness and distinction. Furthermore, the authority of St. Thomas in this connection may be disregarded, for what be says in the text cited is explained by his unavoidable ignorance of facts about generation which modern researches have discovered. In that same text (op. *cit.*, I, 119, 2, ad 2), he writes: 'In order for a man to be like his grandfather, there is no need that the corporeal seminal matter should have been in the grandfather; but that there be in the semen a virtue derived from the soul of the grandfather through the father. . . . For kinship is not in relation to matter, but rather to the derivation of the forms.' But we know that there is a continuity in the germ plasm which is transmitted from generation to generation, as well, of course, as variability in its microscopic structure. It is, thus, in terms of the matter that relations of kinship are to be explained, and not simply through the derivation of forms. Both principles are required if we are to account for both specific nature and accidental traits, racial or individual, whether we are considering the similarities or the differences of living organisms. Error results from ignoring either principle, as the ancients from excusable ignorance neglected, in part at least, the contribution made by signate matter; and as some moderns from culpable neglect of philosophy, fail to take account of substantial form and hence either deny true species or else futilely seek to explain all uniformities in generation by reference to material dispositions.

" Finally it must be acknowledged that, in answering this objection and the previous one, we have presumed to speak about the nature of generation and the role of signate matter therein, without undertaking a complete analysis of these matters. The presumption seems justified, however, in the light of the traditional discussion of such problems."

[157] This point is the very hinge of the issue. Its importance and the range of misunderstandings centered on it make it impossible to avoid citation in order to remove all equivocation and ambiguity in a decisive fashion. The text which achieves this is from Adler's early work on *The Problem of Species*, pp. 188-195; we shall cite only pp. 189-91.

" The fundamental error . . . is a confusion of the logical and ontological meaning of ' property,' similar to the confusion of the logical and ontological meaning of 'species,' which has already been pointed out (vd. Obj. 5 *contra* II). Convertibility in predication is the logical criterion for calling an accidental term a property of a substance. The formula ' quod soli et semper et omni convenit ' merely states this criterion; this criterion or formula is a *necessary*, but not a *sufficioot*, condition of something's being a property in a strictly ontological status. It is true that every accident which is a property is, in logical discourse, represented by a term convertibly predicable of its substantive subject; but not every term which is so predicable is ontologically a property. There are three other criteria, which must be satisfied: 1) The property of a substance must directly signify the substantial difference which cannot be directly apprehended; thus, rationality as a property signifies the substantial difference constitutive of human nature; 2) the property itself is never directly apprehended, but always known by the observation

At this point the problem was further vitiated by Darwin's denial not only that all or many of the natural kinds were distinct in the philosopher's sense of essentially or " radically " so but even distinct *in kind* at aU. In other words, Darwin set up a three-sided issue in terms of a two-sided option: *either* the beings of nature differ in kind, *or* they differ only in degree, and specific distinctions are entirely of human making *(quoad nos).* We have seen how subsequent researches in science proved Darwin wrong about the metalogical status of species and how subsequent analyses in philosophy proved him wrong about the modes of difference. We can extend this to much of what Adler says concerning the dispute about the uniqueness of man to the dispute about the nature of the difference between the living and the non-living and between plants and animals:

of other perceptible accidents, especially operations, actions or passions; 3) the property must not only follow necessarily from the substantial form, but it must be due to the form alone, and neither to the signate matter nor to the objective circumstances of the thing's existence or operation. By these three criteria, power and power alone can be the property of a substance. Not even the natural habits of a substance,-those constant and peculiar modifications of its powers which arise from its normal operations,-are properties. That risibility is traditionally said to be a property of man indicates how prevalent in the tradition is the confusion of logic and ontology; risibility, like the ability to speak grammatically, or to make things artistically, are certainly properties, in the logical sense; but when examined ontologically they are merely aspects of rationality in relation to the variety of objects with respect to which man operates. A sense of humor and grammatical speech are ' natural arts' of man, constant and pecutiar modifications of his rational powers functioning, as they must, in cooperation with sense and other bodily powers. If these are not powers, and hence not properties, how much less so are modes of operation which depend merely upon peculiarities of bodily arrangement or objective circumstance; and even less are such things as figure, color, duration, place, etc. For all these are directly observable accidents; they obviously do not follow from the substantial form alone; nor do they signify a substantial difference directly, as the intellectual powers of man, the proper accident of human nature, signify rationality, as the substantial difference, united with animality, as the generic nature, in the constitution of the human essence. Although we have discussed the essence and property of man, because the second position admits man to be an infima species, what has been said here applies universally to the relation of essence and property. Therefore, we must conclude that none of the so-called constant and peculiar accidents mentioned in the objection are properties (necessary or proper accidents). They are all contingent or adventitious accidents,"

Most, if not all [modern authors] have approached the question with too few distinctions explicitly in mind. They use the words " degree " and " kind " without qualifying them by such critical modifiers as "real " and "apparent," " superficial" and "radical." The reader will find that the philosophical and scientific literature on the subject of man's difference is simply not intelligible without these distinctions, especially the distinction between a radical and a superficial difference in kind.[158]

Yet in fact traditional philosophy and evolutionary science are generally considered to be antipathetic, notwithstanding this double advance. Here we are at the fourth and principal source of the still prevailing ambiguities and uncertainties surrounding the traditional notion of species as essentially distinct kinds: what started out in ancient times as a temporary dependence in ontology upon logical criteria for the determination of species, ended up in modern times as an abandonment of the principle of parsimony in the analysis of natural kinds. I think that when and if the history of neo-scholasticism is written, it will have at its disposal in the writings of Maritain, Garrigou-Lagrange, Rousselot, Gredt, Brennan, Maquart, and Phillips so far as they treat of species a classic illustration of the ancient adage, *parvus error in principia magnus est in fine-a* small initial mistake is a colossal error in the end.158a

If it is true that no theoretical constructs should be resorted to that can be dispensed with in explaining the phenomena, and if there is no evidence that *any* of the natural kinds recognized as species by modern biology exhibit the " infima specific " construction of traditional philosophy, then, by the stated principle which obliges us to judge in the light of the available evidence, we are

158 Adler, *The Difference of Man,* p. 32.

118. St. Thomas, *De ente et essentia,* " Prooemium." See also Aristotle, *De caelo,* I, c. 5, !l71b8-13; St. Thomas, *In I de caelo,* lect. 9, n. 97. Averroes has the clearest formulation, *In Ill de anima,* cap. IV, Lyons 1542 in 16, f. 112•, comm. 4: " minimus enim error in principio, est causa maximi erroris in fine, sicut dicit Aristoteles."

> forced to acknowledge that the metaphysical analysis of essence as constituted by a genus together with a unitary formal difference cannot be applied directly to the diversity and hierarchy of natural kinds so far as they are constituted by groups discriminable as such only by virtue of a syndrome of observable traits, so far, that is, as they are constituted by groups which " we must define at the outset by a multiplicity of differentiae." [159]
>
> The alternative, to whatever extent the principle is abandoned, is to engage in myth making. The point is that, in the present state of evidence, it is impossible to simultaneously respect the regulation of the principle of parsimony and appeal to principles proper to epistemology on questions concerning the metalogical (ontological) status and number of the radical kinds of being. This was illustrated in the famous distinction scholastics drew between " natural " and " systematic " species (Maritain speaks of " the ontological species, not the taxonomic species dealt with in botany, zoology or genetics " [160]) :

Three things must be distinguished: a) varieties (races); b) types now sharply distinct within the same species, i. e., systematic species; c) natural species.... The stability of systematic species is only relative; of the natural species, absolute. Nor can there be so much diversity introduced into the natural species through the systematic species as would obliterate their specific type, i. e., their specific organization. The only difficulty now is to discriminate between the natural and the systematic species. . . . It is clear that we must consider brutes and plants as supreme genera, which are further divided into diverse natural genera and species. It belongs to biology, however, not philosophy, to determine what these genera and species are.[161]

[159] Aristotle, *De partibus animalium,* Bk. I, ch. S, 64S b *!l5.*

[160] Jacques M!ll'itain, "Substantial Forms and Evolution," in *The Range of Reason,* p. S7.

[161] Josephus Gredt, *Elementa Philosophiae Aristotelico-Thomisticae,* editio decima tertia recognita et aucta ab EuchaJ'io Zenzen (Barcelona: Herder, 1961), n. 611, p. 541. It should be noted here, however, first, how close Gredt's "tria distinguenda " aJ'e to the notions of apparent, superficial, and radical kinds; second. that since Gredt's time, the great advances in the knowledge of heredity and in

Such a conception is truly a curio of history, inasmuch as it predates the " family quarrel ' between Linnaeus and Darwin. Such a conception also belongs to the class of *entia multiplicanda sine necessitate,* of myth in the philosophical sense, inasmuch as the mass of data gathered in both the paleo- and neo-sciences favors a denial of these "natural species." Such a conception dialectically belongs to the order of non-argument, inasmuch as it posits an ontological distinction which it admits cannot be verified in a single known case and defends the validity of the distinction on the grounds of our ignorance, thus making the ontological problem a function of the epistemological problem.[162] Finally, such a conception contradicts itself;

the analysis of the genetic code (DNA/RNA) have seriously undermined the foundation on which Gredt rested his entire argument: "Ex organisatione *stricte essentiali,* quae rationem habet proprii stricte (quod soli et *semper* et omni convenit [notice here the confusion uncovered in fn. 157 *supra* between the logical and ontological meaning of property], cum certitudine cognosci possent omnes species naturales. Sed haec organisatio nos latet; consistit enim in ilia microorganisatione, quae jam habetur in cellula germinali (fecundata) , uncle incipit evolutio viventis (cf. n. 406; 449; 452, 2). Cum incipit evolutio viventis, anima seu forma substantialis specifica viventis jam adest, quae essentialiter concectitur cum hace microorganisatione. Haec enim microorganisatio est dispositio proxima ad earn. Evolutione viventis, quae divisione cellularum fit, haec dispositio stricte essentialis communicatur cum diversis cellulis. Sed haec microorganisatio fugit etiam investigationem microscopicam. Necesse est igitur discamus essentiales corporum viventium differentias ex typo externo, ex proprietatibus, quae in individuo vivente in clecursu evolutionis suae extrinsecus apparet, ut jam indicavimus. . . ." What has already been discussed in sections IV and V above justifies, I think, the contention that, if one grants the validity of Gredt's premises here, then it is necessary in the light of now available evidence to draw from them conclusions not compatible with what Gredt himself contended. See the remark of Maritain cited in fn. 163 below.

[162] The confusion of logic and ontology in the Aristotelian-Thomistic species problematic perhaps reached its greatest depth at the time that Gredt could write (a passage not edited, be it noted, as late as 1961 in Zenzen's edition): "Evolutionismus ille, qui rerum distinctionem specificam tollit (darwinismus), arborem Porphyrii destruit" *(op. cit.,* n. 160, p. 143). As Adler early pointed out, "the famous Tree is not purely a logical representation of the arrangement of concepts, but a confusion of logical with ontological ordering. Wherever the philosophical tradition has followed or been influenced by Porphyry, this confusion appears." Not only is " the error a characteristic consequence of the platonizing of Aristotelian science," but " one wonders whether the confusion of logic and ontology in the Porphyrian tradition is also a confusion of the orders of substance and accident." *(The Problem of Species,* p. 68 fn. 86, p. 70, respectively), See *The Problem of*

for the philosopher who entertains it, " while confessing his dependence on the scientist for knowledge of distinctions below *plant* and *brute,* he transgresses the sphere of his competence-violating the autonomy of science-by deciding what scientific evidence he will accept or reject." [163] What Mortimer Adler noticed in this regard thirty years ago, curiously, continues to be true today: "The problems which result from such errors and transgressions are false and ungenuine; yet, for the most part, these are the matters discussed when philosophers and scientists engage in controversy about ' evolution.' " [164]

Species, pp. 64-70. These pages must be read, however, in the light of the rectified theory of an ontological common genus as presented in "Solution of the Problem of Species"; and in this latter work, see also the "Historical Hypothesis," pp. 360-378, which essays to circumscribe in the Aristotelian writings the root sources of the ambiguities and uncertainties which have plagued the philosophical species problematic from the beginning.

See also Maritain's non-argument that " the true character of matter demands " that we *shcruld not* be able to know, by essential definitions, any specific natures inferior to man ("Preface" to *The Problem of Species,* p. x), which objection is thoroughly rebutted by Adler in " Solution of the Problem of Species," pp. 345-50.

[163] Adler, *The Problem of Species,* p. 269. Here then one may cite Maritain contre lui-meme: " Given that philosophy is in its own right independent of the sciences . . . nevertheless . . . *the sciences may indirectly reveal the falsity of this or that philosophical doctrine . . . if and when a philosophical doctrine happens* to encroach upon science itself or *to have, as a necessary consequence,* a certain scientific conception, or rather *a certain general framework imposed on science, whose emptiness is demonstrated." (The Degrees of Knowledge,* p. *59,* my emphasis) . Such has almost certainly been the case with the traditional philosophical doctrine of the *infima species.*

[164] *Ibid.* And sometimes these pseudo-problems underlie the discussion of larger matters as well. For example, I think that *Maritain's way* of subdividing " empiriological knowledge of nature " into " empiriometric " and " empirioschematic " can be shown to depend in part on the position he adopts over the issue of the number and constitution of specific natures (e. g., see *The Degrees of Knowledge,* pp. 80-50, esp. pp. 81, 38, and 45; pp. 173-181, esp. p. 176 fn. 2, pp. 176-8, esp. p. 178; p. 205 text and fn. I, pp. 206-9). Thus the philosophical dimensions of the problem of species have a definite bearing on the philosophy of science; and moreover, once the necessary corrections in the formulation of the species problematic have been achieved, I think it is possible to formulate a solution to the problem of the distinction and relations between science and philosophy which not only meets the requirements of the problem on both sides, but which also reconciles the views of Ashley, Adler, and Maritain in a higher synthesis *(formaliter emlnenter)* to which each of them could give unqualified assent. This, of course, would have to be shown, for it constitutes a study in its own right.

5) Inescapably linked with the question of specific transformations is the problem of the assignation of causes. To some philosophers, the possibility of individuals giving rise to more perfect individuals seems a violation of the necessary proportion between cause and effect. We shall return to this in a later Section (VIII) .

6) The two final sources of ambiguity and uncertainty in the traditional species problematic are closely linked. The philosophical tradition of Aristotle became in St. Thomas a theological tradition as well. The static view of natural kinds, originally rooted in the immutable heavens, seemed to the theologians of medieval times to be indicated in the scriptural texts as well, at least to the extent that the origin of any new specific form was an event involving a special divine creative act. In this way the immutability of specific natures came to mean that the individuals of one species " cannot be generated by or generate [individuals of] another species through the operation of secondary causes alone." [165]

7) The final source of difficulty is a psychological one. Whatever one may think about a science, the architectural structure of which is authority and the foundation of which a text, it is not a mode of knowledge foreign to human nature. Man is by nature an authority acceptor as well as a reasoner. [165a] It is impossible to admit the

[185] See Adler, *The Problem of Species*, pp. 202, 221, 228 fn. llO, 229-30, 251 *et alibi.* In fn. llO, p. 228, Adler wrote: " in the first occurrence of any new species, Divine causality must intervene," since generation by equivocal causality would be " impossible." (Although in fn. *285* on p. 275 he quotes De Koninck approvingly as saying that "when a superior nature is produced from the potency of *an* inferior nature by equivocal generation, this production remains natural.") From a recent telephone conversation, however, I am glad to say that he now is in agreement with the view that will be expressed in Section VIII below, namely, that it is impossible to demonstrate the impossibility in any case of the origin of *an* (ontologically) higher material form from an (ontologically) lower causal series, by reason of the reciprocal repercussion of the causes.

[165]. See C. H. Waddington's important study of man as *The Ethical Animal* (Atheneum, 1960). Thus, not only in the matter of specific natures but in a great many other problem areas as well, " Thomists, in principle, state that one should not

natural origin of the natural species and reconcile all the traditional texts with the admission.[166]

Such then are seven of the major sources of ambivalence and equivocation in the traditional problematic of species: the notion of an unchanging *causa regitiva* keeping the relation of generator to generated within fixed limits; an insufficiently critical appraisal of the order of natural kinds in the light of the metaphysics of essential constitution; an abandonment of the autonomy of ontological principles in the effort to systematize the diversity of nature in terms of morphology; a partial abandonment in the face of evolutionary data of the methodological principle of parsimony; a tendency to conceive of causal interrelations reductively rather than factorially; the theological argument that God " intervened " at the origin of every species; a respect for authority which has blunted the thrust of much of the traditional analyses. It is their cumulative and mutually reinforcing effect that is denoted in the expression, "the error of univocally ontologized kind-essences."

No one, in my reading, has better summarized the current and long-standing failure of traditional philosophy and contemporary biology to communicate in the area of species-notwithstanding their common logic and common set of questions, formally speaking-than has Raymond Nogar.[167] In a symposium on *The Species Problem* (1957), Nogar notes, Ernst Mayr, the editor, deplored the wide variety of species concepts and says:

I believe that the analysis of the species problem would be considerably advanced if we could penetrate through such empirical terms as phenotypic, morphological, genetic, phylogenetic, or biological to

rest on authority in matters philosophical, and yet *de facto* they have been doing precisely this," observes William A. Wallace in an article on "Thomism and Modem Science," *The Thomist,* XXXII (January, 1968), pp.

[166] For example, it does not seem possible to save all the theological texts of Aquinas if one admits that natural origin-!. e., origin in which the proportioned operation of secondary causes is undisturbed-applies below man even in the case of beings which differ in grades of being as well as in degrees of perfection. See *The Problem of Species,* pp.

[167] In *The Wisdom of Evolution,* pp.

the underlying philosophical concepts. A deep and perhaps widening gulf has existed in recent decades between philosophy and empirical biology. It seems that the species problem is a topic where productive collaboration between the two fields is possible.[166]

Commenting on this text, Nogar considers Mayr's position to be perfectly correct. He then points out the obstacle to such collaboration that must first be overcome:

> But the difficulty with the species problem is that the biologist and the philosopher are usually looking for different things. Hence the difference in the meaning of terms. The biologist is seeking a workable field definition of species which will enable him to classify all animals and plants. The philosopher, on the other hand, has been attempting to find a *sic et non* division of cosmic reality which will, by a single characteristic, manifest what a given natural species is and how it differs from every other natural species.[169]

The indispensable step, therefore, in achieving the collaboration Mayr calls for is that the philosopher put aside for the moment his preoccupation with discriminating between irreducible grades of being, in order to attend to the genetic and causal explanation of natural kinds secured by modern evolutionary science. At the level of individual substances as members of adaptive populations structured intrinsically through interaction, what are the" underlying philosophical concepts"? What is the ontological status of species so considered?

The question is proper and possible inasmuch as the ontological order bases all modes reality takes at every existential level. It is necessary if the real nature of Darwin's influence on philosophy is to be made explicit. And it is a distinctively contemporary question inasmuch as its answer is the basis for

[108] Ernst Mayr, *The Species Pmblem* (Washington: American Association for the Advancement of Science, 1957), p. 11.

[169] *The Wisdom of Evolution*, p. 828: " The latter group has followed, in the main, the lead of the *logician or dialectician* who attempts to view things in their ideal perfections. The logician uses as his model the logical instrument invented in the early centuries called the *Porphyrian tree* after the Greek neo-Platonist Porphyry (A. D. 288-804). By means of this classic diagram, the world of reality is arranged according to an ideal bipartite division of being.

"It has been shown in great detail that nature and natural species cannot be viewed with this perfect logical or dialectical arrangement."

the prior possibility of integrating through their respective ramifications the traditional and contemporary species problematics.

It is useful in seeking to come to terms with this question to place ourselves explicitly in the evolutionary context, that is to say, in the context of history as structured causally, in order to bypass for now the preoccupation of certain temperaments with projecting the disproportion formally involved in the causal succession of complex from simple beings, and with introducing God into the development of nature.

> The configuration of the living, as of any other, world depends; from instant to instant on its last previous configuration and on how the immanent processes, the "laws" of nature, tend to act on any given configuration. Involved is historical causation, which includes everything that has ever happened and which is thus an inherently nonrepeatable accumulation. In application to evolution, these rather abstract considerations mean that the actual course of evolution is determined not only by its processes but also by the cumulative total of *all* previous events. [170]

Just as in the traditional problematic of species, so in this one, the philosophical problems raised by the causality involved resolve radically into the question of the reality or meaning behind the term essence *(essentia)* -but with a difference. In the traditional problematic, the species " has only intentional being, except as a constituent in the individual nature, through which it, too, participates in the act of existence," [m] inasmuch as the species "is that essence which can receive no further determinations except those of individuation." [172] "From this it will be clear that the word ' species,' " as used in the traditional problematic, " never refers to an existent thing, for in the domain of material beings only individuals exist, and never species." [173]

[170] George Gaylord Simpson, " The Study of Evolution: Methods and Present Status of Theory," in *Behavior and Evolution,* edited by Anne Roe and George Gaylord Simpson (New Haven: Yale, 1958), pp.

[171] Adler, *The Problem of Species,* p. 19.

[179] *Ibid.,* p. 18.

[178] *Ibid.,* p. 14. See p. 88 of Simon, *The Tradition of Natural Law* (New York: Fordham, 1965), middle paragraph.

When we speak of two substances as belonging to the same species, we mean that they communicate in the same specific nature, though, of course, what is common to them is not identically the same in both, because the specific nature is differently individuated in each, according to the individual differences which constitute their twoness or numerical diversity. The specific nature they share in common is the same only in the sense indicated by the fact that a third substance of different species would differ specifically as well as individually from the two things first considered. The specific nature of the third would be different. In short, the fact that a specific nature can exist in its purity, i. e., in its absolute unity apart from individual multiplications and differentiations, in its unrestricted universality, *only* in an intellect which abstracts the form from the individuating conditions of matter, does not mean that "species" signifies only the concept (second intention) rather than that which is conceived (first intention). That which is conceived is the specific nature as an ontological principle, commonly present in a number of individuals which are truly apprehended as belonging to the same species. The potential universality of the specific nature,-a potentiality actualized only by intellectual abstraction,-is identical with the actual commonness of the nature as participated in by a number of individuals. Although apart from the mind, the specific natures of composite substances do not exist as universals, they do exist commonly,-i. e., as the same nature in two or more individuals,-and this fact is the ontological counterpart of the universality of the idea achieved by abstraction. [174]

In this new problematic, by contrast, " the species is constituted by a substance incorporated in a mass," and " the masses formed by these substances are not unitary entities but collective ones," [175] functioning entirely independently of our mental constructs in patterns of distribution conditioned by ecology or geography.

This indicates at once the altered sense of the term "essence " as it occurs in the two problematics: " If the word ' essence ' be used to signify what is the proximate subject of the act of existence, then, in the case of composite substances,

[170] *Ibid.,* p. 13. See also John V. Burns, "The Problem of Specific Natures," *The New Scholasticism,* XXX (July, 1956), pp. fl86-309.

[17"] Beaudry, *art. cit.,* p. *flfl5.*

essence as the subject of existence must be the individual nature rather than the specific nature." [176] At the same time it also indicates, from the traditional viewpoint, the fundamental reason why species in the second or modern sense do not constitute an arbitrary schema nor circumscribe a reality too dark to be illumined in a properly ontological way: since, " in the case of composite substances, essence as the quiddity or principle of intelligibility, and essence as the proximate subject of existence, are not the same nature" [177] (the former being but potentially individuated, the latter actually so), and since in the case of natural populations " the distinctness of the individuals does not destroy the reality of the mass" [178] or "natural grouping," it stands out clearly that " the proper task for the philosopher, with respect to evolution, is primarily the analysis of the principles of substantial change, as bearing on the production of the *unlike,* both *accidentally,"* or with respect to the diversification of superficial kinds, " and *essentially,"* or with respect to the establishment of the radical kinds, "in the process of procreation." [179] Inasmuch as the latter is possible only in the light of the former, however, it is clear both *that* and *how* the two problematics require interarticulation, and it is just at *that* point that the celebrated " influence of Darwinism on philosophy " is felt.

This will suffice to indicate why and in what sense a hylomorphic analysis of the structure of interaction in terms of what can be said at the level of existence exercised and prior to any analysis of the pure line of essence taken in itself (whereon alone arise the questions about the constitution, order, and number of radically distinct kinds) is the region of mediation between the primary concerns of the differently oriented species problematics of traditional philosophy and contemporary science. We may turn at once to the delineation of this region.

[176] Adler, *The Problem of Species,* p. 18.
[177] *Ibid.,* fn. 6, p. 18.
[178] Beaudry, p.
[170] *The Problem of Species,* p. 274, fn. 284. See fns. 156 and 157 *supra.*

That which makes a thing to be what it is, or, more precisely, that by which a thing is such a thing as it is ("id *quo ens est tale"),* is said to be its essence.[180] Such a characterization, however, never signifies at the level of first intention (of "the organism as a describable object") a class of objects, but rather does it signify essence as *the* inward condition of the fact of *this* concrete existent. Here then, for our purposes, is the starting point from which alone must be determined the primary meaning of *essentia,* i. e., the meaning to which all other essentialist notions must be derivatively referred. Precisely in attaining explicitly to this determination can we effect the destruction of essence as a specific kind-concept of univocal predication, thus clearing the way for the authentic influence of Darwin on philosophy and removing the obstacle to productive collaboration between modern biology and traditional philosophy at a single stroke.

Historically, we have already indicated a number of critical considerations relevant to this line of inquiry; without pretending to develop thoroughly the analysis required to complete the proposed destruction, we can sketch at least in an indicative, preliminary way the lines which it must follow if it is to be carried through successfully.

[180] ". . . it is things, subjects, *existents* that we experience. From these existents our intelligence disengages by abstraction *essences-'* suchnesses ' or intelligible 'structures'. These are the object of its first operation (simple apprehension) and of eidetic vision. Though these essences are found in a state of universality in our mind, where they are known as such, they exist really in things-in a state of singularity, as individual natures. To deny or to put in doubt this extramental reality of (individuated) essences would be to put in doubt the noetic value of the human intelligence. But for a sufficiently attentive analysis what is the absolutely precise and ' pure ' data of the intelligence as far as essences are concerned? Because they are derived from existents by the operation of the intelligence, they do not appear as the existents themselves made present to us, but quite precisely as something immanent in the existents and which determine the existents to be what they are. The ·intelligence seizes them and gives them to us as *that by which* the things, subjects, or existents, are such or such. Hence, in its very notion, essence is a principle *quo."* Jacques Maritain *The Degrees of Knowledge,* pp. 435-6. Cf. A. G. Van Melsen, *The Philosophy of Nature* (Pittsburgh: Duquesne, 1961), "The Species-Individual Structure of Matter," pp.

Fundamentally, the question evolution poses in terms of our understanding of essence is the question of being-as-possible: Essence within *this* existent as a subject capable of existing-actualized points to the question of how was *this* essence actualizable? What was its pre-subjective reality as such?

Here we must realize at once that in applying the concept of possibility at the level of essence so considered we make a transcendental transference, so that the meaning of our term becomes simply different from what it denoted at the existential level. We cannot ask about possible essences as such in terms of a determinate positive content, not even by limiting such a content to intelligibly prejacent "essential notes." In other words, *in itself, essentia, as the capacity to be, cannot be conceptualized:* as a potentiality or subject " out of which " and considered apart from actual existence or " esse," the word essence retains no intelligible content.

It is necessary to repeat in this connection that we are making no statement here concerning " the line of essence considered in itself," i. e., as an a priori of historical causation, which, precisely as a *purely* eidetic consideration, would pertain most properly to considerations of second intention (i. e., to phenomenological research and to logic), or derivatively and as a constitutional question, or question of formal intelligible constituent *sine qua non,* to metaphysics; we address ourselves rather and with full reflexive restriction to *structured exercise* of existence which is exactly the meaning of " essence " in terms directly and immediately of first intention.

It is for this very reason that our concern shares the intentional content of the traditional efforts at an elaboration of the sense of *subsistere:* " if existence is seized by the essence as act by potency, it is by (the existence) *itself holding* (not certainly [through] efficient causality, but by formal or intrinsically activating causality) the essence outside the realm of simple possibility, since the *esse* is not received by the essence as in a pre-existing subject which would thus already be in existential act. The essence which receives existence holds from it-in what concerns the existential order-absolutely all its

actuality, in short *is nothing without it";* [181] from which it must be inferred that " since existence is by its very notion an exercised act, the essence can be so held outside the realm of simple possibility only on condition of being at the same time carried by subsistence to the state of subject or supposit capable of *exercising* existence." [182] Hence the conclusion: " the proper effect of subsistence . . . is simply . . . the promotion onto a new plane of the incommunicability which defines singularity." [183]

It is not therefore just a matter of one metaphysical dimension in the structure of being but of the primordial dimension enclosing all others. By attempting to place ourselves ontologically at the level of natural kinds as such existing in order to " penetrate through such empirical terms as phenotypic, morphological, genetic, phylogenetic, or biological to the underlying philosophical concepts," we find ourselves at one and the same time located outside the order of essence considered in itself (the order of intelligible a priori for the possibility of a material order of being) and within a region of shared concern constituted by the pattern of interimplications between the traditional and the modem problematic of species, but a region

[181] Jacques Maritain, "On the Notion of Subsistence: Further Elucidations," in Appendix IV to *The Degrees of Knowledge,* p. 437.

[180] *Ibid.,* p. 438.

[188] *Ibid.:* " And so the proper effect of subsistence is not . . . to confer on the individuated essence or individual nature an additional incommunicability (this time in relation to existence) or to make it limit, appropriate, or circumscribe to itself the existence it received, and hence prevent its communicating in existence with another essence or receiving existence conjointly with another essence: it is simply to place it in a state of *exercising' existence,* with the incommunicability proper to the individual nature. The individual nature does not receive a new incommunicability from the fact of subsistence. Facing existence as a subject or supposit capable of exercising existence, it is enabled to transfer it into the existential order, to exercise in existence itself the incommunicability which characterizes it in the order of essence and as an individual nature distinct from any other. This is not a new kind of incommunicability, but the promotion onto a new plane of the incommunicability which defines singularity. Subsistence renders the essence (become supposit) capable of existing *per se separatim* (cf. *Summa,* III, q. a. 2 ad 3), because it renders an individual nature (become supposit) capable of exercising existence."

till now undisclosed as shared from the standpoint of the primary concerns of either problematic. Herein we may suspect is a crucial area wherein not only are the evolutionary species reduced to their underlying ground of intelligible possibility but wherein also careful reflection upon the data of evolution opens the way to a decisive reformulation of a question *"disputata inter doctores"* for literally centuries. And just as the value of this former penetration frees the proper influence of Darwin on philosophy (an influence altogether different from what Dewey envisaged "in anticipating the direction of the transformations in philosophy to be wrought by the [putatively] Darwinian genetic and experimental logic "[184], so is the value of this latter reformulation inestimable to the Aristotelian philosophical tradition, for all will agree that-de *jure* at least-" a *problem* (not a *mystery)* is the one thing which should not be perennial in *philosophia perennis."* [185]

It appears, then, that subsistence constitutes a new metaphysical dimension, a positive actuation or perfection, but under the title of a *state* (according as a" state" is distinguished from a "nature" [i. e., specific nature *au sens traditionelle])* . . . . Let us say that the *state* in question is a state of *active exercise,* which by that very fact makes the essence pass beyond the order of essentiality (terminates it in this sense) and introduces it into the existential order-a state by reason of which the essence so completed faces existence not in order only to receive it, but to exercise it, and constitute henceforth a centre of existential and opemtive activity, a subject or supposit which exercises at once the substantial *esse* proper to it and the diverse accidental *esse* proper to the operation which it produces by its power or faculties.[186]

[184] Dewey, " The Influence of Darwinism on Philosophy," p. 18.

[185] Adler, " Solution of the Problem of Species," p. 341.

[186] Maritain, "On the Notion of Subsistence," p. 438. See Etienne Gilson, *Being and Some Philosophers* (2nd ed., corrected and enlarged; Toronto: Pontifical Institute, 1952), p. 183: "Finite essences always entail both limitation and determination, because each of them is the formal delimitation of a possible being. Yet, if such a possible essence actually receives existence, it is a being, owing to its own act of existing, so that, even in the order of finite being, the primacy of existence still obtains. Its act of existing is what insures the unity of the thing. Matter, form, substance, accidents, operations, everything in it directly or indirectly shares in one and the same act of existing. And this is why the thing

Gilson considers that "this intrinsic dynamism of being necessarily entails a radical transformation of the Aristotelian conception of essences," inasmuch as Aristotle's metaphysics was a "dynamism of the form," deepened in its own line by Aquinas into a "dynamism of *esse* (to be)." [187] That indeed is why (there are theological reasons as well, but they are irrelevant for this context) *subsistentia* is a problem distinctive of Thomistic metaphysics. But it is extravagant, in my estimation, to say that with this development of a tradition in its own line "the whole philosophical outlook on reality at once became different." [188] And in the second place, so far as the

is both being and one. Existence is not what keeps elements apart, it is what blends them together as constituent elements of the same being. For the same reason, temporal existence is neither the ceaseless breaking up of eternity nor the perpetual parceling out of being; it is rather their progressive achievement through becoming."

[187] Gilson, *Being and Some Philosophers*, p. 185. See the discussion in footnote 188 below.

[188] *Ibid.* Extravagant declarations by historians in philosophy have the decided tendency of transforming themselves in the minds of their hearers into doctrinal positions sure of themselves and of their power to renew everything. Such has been the distinct tendency among certain of the disciples of Gilson, who, seizing upon the "dynamism of *esse,"* no longer hesitate to conjecture the next step in "the direction in which the history and science of metaphysics will develop" (W. E. Carlo, *The Ultimate Reducibility of Essence to Existence in Existential Metaphysics* [The Hague: Martin us Nijhofl', 1966], p. 3).

So far as the *history* of metaphysics is concerned, the reduction of essence to existence may well mark the metaphysical writings of prominent authors, and if so, the "whole philosophical outlook on reality" does indeed become different; and we find ourselves, by an unexpected turn of history, re-established within a Suarezian metaphysics, this time "turned on its head," so that existence is no longer reduced to essence in the denial of their real distinction, but the reverse (much what happened to Hegel at the hands of Marx).

So far as the *science* of metaphysics is concerned, however, the primacy of *esse* over *essentia* which recognizes itself in Thomas for the first time clearly is exactly a clearer realization for philosophy of the principle of the primacy of act over potency, secured now at the level of existential act. It is in this sense and this sense alone that the Aristotelian "dynamism of form" becomes with Thomas a "dynamism of *esse";* and between the doctrine of the ultimate *subordination* of essence to existence and that of the ultimate *reducibility* of the former to the latter lies all the difference between philosophical progress by way of development and philosophical progress by way of substitution. Fr. Gredt has stated the final reason for the possibility of conceiving philosophical progress in the former manner in lines which leave nothing to be desired in point of exactitude,

Aristotelian conception of essences was involved in the problem of specific natures, it neither was nor could be " radically transformed " without the whole problem of the metaphysical grades of being being abandoned. There is no doubt that, as Mortimer Adler has so carefully exhibited, this St. Thomas did not do. If he had done so, the " traditional " species problematic would not be distinguishable from the modern one in its primary concern. For St. Thomas, as for Aristotle, the notion of species was convertible with the usual use of essence and belonged to the ontology of natural kinds by way of secondary employment.

and which have the further merit of bounding definitively the doctrinal sense of historians' proclamations concerning the transformations of the philosophical landscape one discovers (and they are there) in reading Aristotle through the *Commentaria* and *Summae* of Aquinas: " Philosophia aristotelico-thomistica cssentialiter consistit in evolutione rigorose logica et consequenti doctrinae aristotelicae de potentia et actu. Haec doctrina ab Aristotele proposita, a S. Thoma declarata et ulterius evoluta, in schola thomistica iterum iterumque elaborata est et contra adversariorum impugnationes defensa. Fundamentum eius est distinctio realis inter actum et potentiam limitantem actum: inter essentiam limitantem esse et materiam limitantem formam. Esse irreceptum est simpliciter infinitum, actus purus; et forma pure spiritualis, in nulla materia receptibilis, est in sua linea infinita. Quo stabilitur distinctio inter Deum et mundum, inter mundum spiritualem et corporeum . . . . philosophiam aristotelico-thomisticam doctrinam ex hoc fundamento logica consequentia evolutam," ostendibile est. (J. Gredt, "Introductio" in *Elementa Philosophiae Aristotelico-Thomisticae,* Vol. I, p. 5, n. 3. See in this same line the instructive article by C. Fabro, "Tommaso d'Aquino," in *Enciclopedia Cattolica,* Vol. XII {Florence, 1954], cols. 259-i'l65.) But then, everyone knows that Fr. Gredt is one of the "manualistae ": see Jacques Maritain's remarks on "The Philosophy of St. Thomas" in *The Peasant of the Garonne* (New York: Holt, Rinehart, & Winston, 1968), pp. 135-141.

The point remains that one may have " progress " in philosophical history by substitution, by a discontinuous jumping between the fundamental dialectical options or " logical possibilities " envisionable in terms of a basic philosophical problem; but in the history of a doctrine (something else than a school), such " progress " has more of the character of a series of betrayals or abandonings, whatever may be the doctrinal position from which one views the movement. And one may quite well leave aside the language of the "real distinction" *(esse/essentia),* still more the "texts" from whosesoever pen, without turning one's gaze from the matter-at-issue: what is the character of the difference between act and potency, and what does this imply in the order of lived experience for existence exercised?

See further fn. 196 below.

What is true is that the distinctive advance of St. Thomas over Aristotle in having recognized the transcendence of existence respecting essence makes it possible to see the repercussions of evolutionary species on the question of the hierarchy of being according to essential grades. But, without further historical digression, let us resume the thread of our analysis.

As we noted initially, a strict employment of the term essence is possible which confines us to the concrete real, the historical reality as reality, and refers simply to the capacity to be as a self-identity. The whole of that which constitutes a capacity to be, however, must include what is necessary, i.e., *whatever is intrinsic:* and since only individuals do or can exist, individuating characters are radically enclosed at the level of essence, not as "accidental" *(per accidens)* modifications but as intrinsic and absolute substantial modalities. The total " capacity to be " in every instance is not merely " forma substantialis " but " matter-form," or, more exactly (for this is what forma substantialis is), *materia actuata,* i.e., all individuating notes or modalities. "It is evident that every natural generation involves a measure of uncertainty. If that uncertainty could be entirely eliminated, it would be because the form would be entirely determined-but in that case generation itself would become impossible." [189] Since it is at the heart of being, this " incertitude " bears equally on the existence of the effect or product and on its very structure.

It is precisely the lack of determination of natural forms and their incapacity for individuating themselves which makes matter necessary for their existence. This necessity for matter introduces into the form itself an irreducible obscurity. There can be no idea of a cosmic form that is distinct and independent from the idea of the composite; [190] and the matter which enters into this idea is not determined at all without signifying also a determinability with respect to an infinity of other forms. A non-subsistent form is not a quiddity in the strict sense. [191] This means that the different

[189] De Koninck, "Reflexions sur le probleme de l'indeterminisme," p.

[190] John of St. Thomas, *Cursus Theologicus,* II, p. 575, n. 15.

[191] " Anima sensibilis cum non sit res subsistens, non est quidditas, sicut nee aliae formae materiales, sed est pars quidditatis, et esse suum est in concretione ad materiam." (St. Thomas, *de Potentia,* q. 3, a. ad

natural forms (I do not say the diverse ones) cannot be absolutely opposed as if they were forms of pure spirits, because their definition embraces the notion of matter, that is to say, the possibility of an infinity of other forms which can be drawn out of this matter. Consequently the existing varieties of forms or "natural kinds" are analogues of the segments of a continuum determined a-posteriori. In this sense they are contingent and always *quidditati1Jely new.* Between any two given forms in nature, there is an indefinite possibility of other forms. These forms are in the matter in a purely potential manner; and consequently the determination which any material form is, is something to be constituted *as determination.* **It** is necessary to speak in this way if one wishes to avoid the *latitatio formarum* (the actual latency of forms) .[192]

Therefore, at the level of the concrete real, of first intention, the actuality which is " esse " *cannot* reflect a univocal kind or type of being.[193] The most radical and accordingly primary meaning which attaches to *essentia* is not " this *kind* " but *"this* existent "-that is, the fundamental notion in the term essence is one of proportion: *essentia dicitur prima et per se* ' *proportio ad esse* ' (" essence bespeaks primarily and of itself a proportion to existence" [194]). And since there can be as such no proportion at the level of being-as-possible, the question of possible being becomes a question of how an existential proportionality is effected. Thus, we speak of " possible being " rather than of " the possibility to be " precisely because things come to be only as individuals, but the phrase may still be misconstrued.

Essences are often conceived as *possible* beings, the reality of which coincides with their very possibility. But we should be careful to distinguish between essential possibility and existential possibility. For, indeed, they belong in two distinct metaphysical orders, so much so that there is no way for us to reach the second one

[19]. De Koninck, ppo !'l33-4o

[193] Cfo Gilson, *Being and Some Philosophers,* ppo *185-60* Adler, "Solution of the Problem of Species," ppo 356-70

[19] Cfo Anthony Schillaci, Oo Po, *De possibilitate entis finiti* (Mimeographed: Fall, 1961), po 3: "Possibilitas entis non limitatur nisi per intrinsecam contradictionemo 0 0 0 Possibilitas intrinseca alicujus entis identificatur cum eius essentia, cum intrinseca possibilitas nil aliud sit nisi aptitudo rei ad esse subjectum tou ' esse', quae est ratio constitutiva alicujus rei in ratione essentiaeo"

through the first one. An essence is possible, *qua* essence, when all its determining predicates are compossible. If they are, the existence of the corresponding being is possible; if they are not, it is not. And this is true, but it is true only in the order of essential possibility, not at all in the order of existential possibility. Many metaphysicians seem to imagine that an essence cannot exist, so long as it has not received all its determinations, that, as soon as it has received them, it is bound either to burst into existence or, at least, to receive it. Now a twofold error is responsible for such an illusion. The first one is not to see that to be fully completed in the order of essentiality does not bring an essence one inch nearer actual existence. A completely perfected possibility still remains a pure possibility. The second error is to forget that the essence of a possible being necessarily includes the possible existence through which alone it can achieve its essential determination. To repeat, essential possibility is no sufficient reason *for existential possibility,* and since its *essence is what a being is going to become, if it exists,* existence itself necessarily enters the calculation of its essential possibility. [195]

It follows ineluctably that only on the basis of causality-a basis very different from that provided by any phenomenological eidetics-can *essentia* be understood in the most fundamental manner, i.e., as a *proportio ad esse/* [96] The question of the actuability of essence, of the reality-status of being-as-possible, cannot be dealt with except in terms of the preexistence of effects in their causes: [197] an answer framed with

[196] Gilson, *Being and Some Philosophers,* pp. my emphasis.

[196] Maritain contends that "the very distinction between existence as received and existence as exercised, is understandable only in the light of the axiom *causae ad invicem sunt causae."* " This involution of causes is at the core of the problem." (" On the Notion of Subsistence," p. 439). Gilson is in agreement that the involution of the ca}uses is at the core of the problem, but he seems to conceive their play somewhat differently than does Maritain. (See *Being and Some Philo,sophers,* p. in contrast with *The Degress of Knowledge,* p. 437) . William Carlo in a recent book seems to be of the opinion that the reciprocity of the causes is outside the central issue *(The Ultimate Reducibility of Essence to Existence in Existential Nfetaphysics,* esp. pp. In this last perspective, I, for one, lose sight entirely of the traditional species problematic.

[197] Gilson, *Being and Some Philosophers,* pp. makes some striking observations in this connection (observations, moreover, which sound quite like Bergson: cf. "The Possible and the Real," in Bergson's *The Creative Mind,* New York: Philosophical Library, 1946, pp. 91-106): "Having overlooked the transcendence

any other reference and put forward as fundamental posits implicitly the equivalent of a Platonic Idea. *Indeed, it was the consideration of essence primarily as the focus of formal perfections, to the neglect of interrogating it (except in a secondary fashion) as the existentially established possibility for concrete presence in the world, that led thinkers into paradox and contradiction before the evolutionary species problematic.*

But the irrepressible essentialism of the human mind blinds us to that evidence. Instead of accounting for potency by act, we account for act by potency. We rather forget that what is at stake is neither existence nor essence, but being, which is both. We fancy that essences, which owe their complete determination to existence, are eternally independent of existence. Everything then proceeds as though the essences of possible beings had been eternally conceived, by a divine mind, apart from the very act through which they would some day become actual beings. Thus conceived, existence does not enter the concrete determination of essences; it fills them up.[198]

of existence, essentialism has entertained the curious illusion that, since, in order to be, a being must at least be possible, the root of being lies in its possibility. But possibility is a word of several meanings. It may mean the simple absence of inner contradiction in an essence, and, in such cases, all non-contradictory combinations of essences are equally possible, but none of them is one step nearer its actualization than another one. It may also mean that an essence is fully determined, so that it is actually capable of existing. Such possibles are in the condition which Scholastics would have called that of proximate potency to existence. But such a possibility still remains pure abstract possibility. Is it true to say, with so many philosophers, that, when all the conditions required for the possibility of a thing are fulfilled, the thing itself is bound to exist? Scarcely. When all those conditions are fulfilled, what is thereby fulfilled is the possibility of the thing. If any one of them were lacking, the thing would be impossible, but, from the fact that all those conditions are given, it does not follow that the thing is required to exist. The possibility of its essence does not include that of its existence, unless, of course, we count among its required conditions the very existence of its cause. But, if we do, the being of the cause is the reason why the possible is a possible being. *Omne ens ex ente:* all being comes from another being, that is, not from a possible, but from an existent.

" To overlook this fact is completely to reverse the actual relation of essences to existences. In human experience, at least, there are no such things as fully determined essences prior to their existential actualization. Their *esse* is a necessary prerequisite to the fullness of their determination."

[198] *Ibid.,* p. Cf. Joseph Owens, "The Intelligibility of Being," *Gregorianum,* XXXVI (1955), pp. 169-193.

In this regard we may *appropriate* (I do not say " concur with") some critical reflections put forward by Heidegger.[199] " In connection with all the determinations of being and the distinctions we have mentioned, we must bear one thing in mind: because being is initially *physis,* the power that emerges and discloses, it discloses itself as *eidos* and *idea.* This interpretation never rests exclusively or even primarily on philosophical exegesis." [" The existence of nature is known directly *(per se)* insofar as natural things are manifest to the senses. But what the nature of each particular thing is, or what the principle of motion is, is not manifest."[200] " Appearance, *doxa,* is not something besides being and unconcealment; it belongs to unconcealment." Thus " it cannot be denied that the interpretation of being as *idea* [Lat., *species vel forma]* results from the basic experience of being as *physis.* It is, as we say, a necessary consequence of the essence of being as emerging Scheinen (seeming, appearing, radiance) .... *["Esse objective enim consistit in ipsa orientatione per modum transcendentalem ad esse subjective."]* But if the essential *consequence* is raised to the level of the essence itself and takes the place of the essence, what then?. . . . The crux of the matter is not that *physis* should have been characterized as *idea* but that *idea* should have become the sole and decisive interpretation of being." *"Physis* is the emerging power, the standing-there-in-itself, stability." ["Because everything acts insofar as it is an

[199] From M. Heidegger, *An Introduction To Metaphysics,* trans. by Ralph Manheim (New York: Anchor, 1961), pp. *165,* 160, 153, 165, *154-5,* and 153-4, respectively: Heidegger's own emphases. However, let there be no misunderstanding here. Anyone who has genuinely grasped the implications of the phenomenological " Sachen selbst " and the research they in principle ground will realize how radical our appropriation shall have to be in order to place any formally philosophical reflections of Heiuegger in an other than phenomenological context. Lest the reader suspect we are passing over with inadequate assessment the immense difficulties such an appropriation claims to have overcome, we refer him to our study which takes up the issue with attention to detail: "The Situation of Heidegger in the Tradition of Christian Philosophy," *The Thomist,* XXXI (April, 1967), pp. esp. sec. VII, "Phenomenology: The Medium of the Being-question," pp. A full length book on this question is in preparation.

[200] St. Thomas Aquinas, *In II Phys.,* lect. I, n. 8.

actual being, the consequence is that everything stands in the same relation to action as it does to being." Thus "the measure and quality of a thing's power is judged from the manner and type of its operation, and its power, in turn, manifests its nature; for a thing's natural aptitude for operation follows upon its actual possession of a certain kind of nature." [201] *"Idea,* appearance as what is seen, is a determination of the stable insofar and only insofar as it encounters vision." [Thus, not only is it true that " of no thing whatever can a perfect knowledge be obtained unless its operation is known," but we must also take account of the critical factor that " we do not know a great many of the properties of sensible things, and in most cases we are not able to discover fully the natures of those properties that we apprehend by sense." [202] Hence "being itself, interpreted as idea, brings with a relation to the prototypical, the exemplary, the ought." " From the standpoint of the idea, appearing now takes on a new meaning. What appears-the phenomenon-is no longer *physis,* the emerging power, nor is it the self-manifestation of the appearance; no, appearing is now the emergence of the copy. Since the copy never equals its prototype, what appears is *mere* appearance, actually an illusion, a deficiency. Now the *on* becomes distinct from the *phainomenon.* And this development brings with it still another vital consequence. Because the actual repository of being is the *idea* and this is the prototype, all disclosure of being must aim at assimilation to the model, accommodation to the idea. The truth of *physis, aletheia* as the unconcealment that is the essence of the emerging power, now becomes *homoiosis* and *mimesis,* assimilation and accommodation, orientation by . . . , it becomes a correctness of vision, of apprehension as representation." " The idea, as the

[201] St. Thomas Aquinas, *Summa Theologiae,* III, q. 77, a. 8; and *Summa contra gentiles,* II, c. I, n. I: respectively.

[202] *Summa contra gentiles,* II, c. I, n. I; and I, c. 8, n. *5:* respectively. In the *CoUationes de Credo in Deum,* a. I, is the interesting remark that "our knowledge is so imperfect that no philosopher has ever been able to discover perfectly the nature of a single fly."

appearance of the essent, came to constitute its what. Thereby the whatness, the 'essence,' i. e., the concept of essence, also became ambiguous." [Thus, in many traditional writings, "In its proper intelligibility, form bespeaks a capacity for realization *(dicit realizabilitatem)* in any time, place, or subject whatever; and consequently, prior to existence, the essence itself of a thing is a possibility indifferent to existing in any particular time, place, or set of external circumstances (in *quavis contingentia extrinseca)* ."] Such has been the historical interpretive consequence of according primary import to that which is secondary in the notion of finite being

In terms of the actually existing things in the world, this is not to say that classification into kinds is fictitious, altogether false, but that such classification is shot through with analogy -and this is exactly what genetics has disclosed in a researchable manner. There are natural units, concrete universals, as it were, corresponding to the term "species." There are, that is to say, groups of individuals structured basically through sexual behavior so that the absolute range of adaptive tolerance of the members of any given group is closely coincident, yet divergent relative to the adaptive area of other groups; but within these interaction-structured groupings, within any given species, *individuality is not a reducible phenomenon,* neither genetically nor metaphysically, *so* that *typological thinking* (however useful it may be for certain purposes) *remains of itself at the level of second intention,* one step removed from the concrete real. *In terms of the proportion to" esse," there can be no incidental* ("per accidens") *difjereJwes,* "for even though a thing's existence is other than its essence, existence is not to be understood as something added over and above the essence after the manner of an accident but as if established as the result of the principles of the essence. And for that reason the term being, which is applied to a thing by reason of its very existence, signifies the same total reality as the term which is applied to a thing by reason of its essence." [203]

••• St. Thomas Aquinas, *In IV Met.,* lect. *lt,* n. 558.

In its complete explication the analysis of essence at the level of possible being (to which the evolutionary problematic forces philosophy) gives full metaphysical consistency to the notion of" being in and through a world." Space-time modifies and enters into the reality termed essence precisely in that there is no parent engendering progeny in a one-to-one relationship (there is no causal process in nature reducible to the transmission of an identical form); rather, there is only and always parent *plus* this proximally circumscribing environment, together establishing the extrinsic though immediate proportion constituting this individual existingly.

A " possible being " thus understood is in no degree virtual, something ideally pre-existent. A simple absence of external hindrance and non-contradictoriness of intrinsically constitutive notes is alone signified, together with an actual convergence of causes adequate-be it by reason of nature and chance or nature and art-to the production of a corruption (which is to say a generation: *corruptio unius est generatio alterius inquantum materia prima numquam existit per se)* in the world of nature. (To borrow an illustration from William Howells: " Man himself could only appear when a very high organization had been attained [absence of external hindrance]. For hands and a big brain would not have made a fish human; they would only have made a fish impossible [contradictoriness of intrinsically constitutive notes.] [While from the standpoint of an actual convergence of causes in the history of life,] man's own trail, among the many trails in evolution, was well defined: he had to be a mammal and he had to be a primate." [204]) In a crude though preliminary way-" there is at least a poetic anticipation here," Adler contends, " of recent scientific discoveries concerning the causal efficiency of various types of radiation to produce mutations in the germ plasm" [205]-this was hinted at by Aristotle: " Man is begotten by man and by the sun as well." [206] What Heidegger remarks concerning

••• *Mankind mthe Making* (Garden City, New York: Doubleday & Co., 1959), p. 341.

[205] Adler, *The Problem of Species,* p.

[206] *Physics,* II, c. 194bl3f. Cf. St. Thomas, *In IV Met.,* lect. 3, n. 785.

our awareness of beings holds equally as regards their proper existence: "It is through world that the essent first becomes essent." [207]

Thus, "to be" means "to stand within limits"; while to stand within limits means to exist as a dialectically conditioned possibility or aspect of a world: *essence* is only the potential dimension of contingent substance which defines it and fits it into a given population and environment according to certain active and passive capacities, while correlatively *existence* is essence simultaneously determined as identity with itself and reference to another, scil., the environmental world.

One would have a perfect necessity in the works of nature therefore only if one would make abstraction from the matter-principle at once of individuation and contingency-which enters into every work of nature and without which nature would not be nature. And when we speak of the "hypothetical necessity" of natural laws we mean to say that an effect is certain to the extent that form prevails over matter [actual determination over possible determination otherwise]. In other words, the laws of nature would be necessary if matter were neither nature nor principle of contingency, if in the work of nature, nature were form alone. The expression "hypothetically necessary" is therefore subject to ready misunderstanding. It does not at all apply to future contingents, except in their relation to a divine intelligence and will.[208]

"The organism and the environment," Dobzhansky notes simply, "are really parts of an interacting system." [209]

[207] *An lntJ·oduction to Metaphysics,* p. 51.

[20-] De Koninck, p. 9!40.

[209] *Mankind Evolving,* p. 89. Gardner Murphy, Director of Research at the Menninger Foundation, applies this view directly to the understanding of the human phenomenon as such: " we often look for human nature in the wrong place; we merely look inside the living system. [Yet] any products whatever which life yields, are in a sense the products of a system of events deployed through a vast system of forces. Indeed, life ean be destroyed and any given avenue can be blocked, but to find the wellsprings of human nature by looking inside the capsule is to miss the field character of the event." "A Platonic idea of intrinsic human nature as something guiding human destiny . . . needs the benefit of field theory to achieve coherence and credibility in an era in 'which both man and his environment need to be seen not as two realities but as two phases of one reality"-*human nature.* "From such a point of view, part of the essential nature of human-

In summary: possible being does not differ from actual being simply by the difference of an efficient cause, by a merely extrinsic principle. Rather, the root meaning of essence must be derived in terms of possible being as the causal establishment of a proportion to existence, so that at the level of the concrete real, of actually existing things, essence always involves the concretion of all space-time factors (among which the generator is primary but never exclusive) entering into the initial establishment of individuality; "there could be nothing

ness lies in the specific evolutionary trends that underlie the many demands of mankind upon life . . . . " *(Human Potentialities,* pp. 307, and 37, respectively. See also pp. 109-10, 177, Johannes Messner, on a solidly and explicitly Thomistic basis, arrives at a similar formulation: " In the first edition of this work the matter was dealt with in the following way: Society is an accident, requiring a substance, namely, man, to support it, but an ontological accident, since man is by his nature a social being. . . . Today we would say that ontologically and metaphysically, if the expressions substance and accident are given the meaning just set down, society can only be described as an accident. *It seems, however, to be another question whether the special supra-individual reality of society can be fully explained in terms of these disjunctive concepts of substance and of accident,* so conceived. Certainly society is not a substance in the sense of subsisting in and for itself, independently of individuals. Yet, although society is not a substance in this sense, we cannot conclude that its being in the ontological and metaphysical sense is merely secondary in relation to the individual as such." On the contrary, "since the idea of evolution is inseparable from the nature and the natural law of man," Messner is driven to that "society and the individual possess, ontologically and metaphysically, equally original being. Neither can be derived from the other or reduced to the other as the primary being . . . . The association of individuals in society indeed consists in interrelations, but not in interrelations of integrated individuals . . .; rather, it consists in interrelations *through which* the individuals achieve full humanity and through which, therefore, *a new reality is established." (Social Ethics: Natural Law in the Western World,* J. J. Doherty, trans. St. Louis: B. Herder Book Co.. 1965, pp. 106 f., 76, and 108, respectively, emphasis supplied. See also pp. 36, *55:* 63, 76, 84, 97, 139, See also Erik H. Erikson, "Evolution and Ego," *Insight and Responsibility* (New York: W. W. Norton & Co., 1964), pp. 134-157, esp. f. Indeed, mused Alexis Carrel, "it would be absurd if external reality were incapable of encompassing man in his totality. It would also be absurd if its structure did not correspond in some measure to our own. It is thus reasonable to attribute the same objectivity to the world of spirit as to the world of matter." *(Reflections on Life* [New York: Hawthorn Books, Inc., 1965], p. 165). *In these terms, it becomes impossible to define the end for man as man without ipso facto defining the end (and thereby the direction) of the evolutionary process which man extends.*

outside the essence of being which could constitute a particular species of being by adding to being; for what is outside of being is nothing, and this cannot be a differentiating factor." [210] Thus, at the level of first intention, all specific kind-concepts of universal predication-essentiae *specificae-are* and *can only be* media of analogous intelligibility. [211] To make more of them than this is to confuse linguistic or logical and ontological classifications. Indeed, even in the traditional species problematic where it is irreducible grades of being which are at issue more than the existential diversity of kinds:

> The unity of a nature as existing in many individuals is an analogical, not a univocal, unity of being, even though the concept whereby that nature is apprehended is primarily a univocal and not an analogical concept. This must be so, for there is no way in which the one can exist in the many except *analogically.* [212]

" No middle can be found," stressed St. Thomas, " between singulars and their species," for the very good reason that "actions have to do with singular things and all processes of generation belong to singular things": "Universals are generated only accidentally when singular things are generated," i. e., they are consequent only on the consideration of reason, so that, although derived from the things, they are as qualitative universals extraneous to the individual natures which transobjectively ground them in the natural articulations and interaction-structured groupings of the environmental world. [213]

[210] St. Thomas, *In V Met.,* lect. 9, n. 889.

[211] Cf. Adler, " Solution of the Problem of Species," pp. 356-7.

[212] *Ibid.,* p. 306, fn. 44 *ad finem.*

[213] St. Thomas, *In I Post. Anal.,* lect. 2, n. 21; *In Met.,* I, lect. I, n. 21; VII, lect. 7, n. 1422; and esp. IV, lect. 4, n. 574, respectively. Also *Summa,* I, q. 13, a. 12 ad 3; and q. 85, a. 2 ad 2. Thus the conception of the "concrete universal " (as we have used the phrase in this analytic) differs from the qualitative universal familiar to the logician not by way of negation or rejection but by going beyond the static conceptions of, e. g., " horseness," "whiteness," etc., to include *explicit* reference to the immediate phantasmal ground of conceptualization so as to sustain analogical eidetic visualizations in which singulars are seen as structured by and holding together through interaction, *as weU as* in their formal and qualitative isolation: the idea constantly remains within its totality. Unlike the abstract universal which prescinds from existence in order to unite its subordinates in the perfect unity of

That which makes this thing to be what it is, is not an instanced universal or essential form but a unique, incommunicable, unrepeatable (i.e., *historical) proportion to being-in-the-universe -which is something much finer!*

That the appearance of a vegetable or animal species is due to specific causes, nobody will gainsay. But this can only mean that if, after the fact, we could know these causes in detail, we could explain by them the form that has been produced; foreseeing the form is out of the question. It may perhaps be said that the form could be foreseen if we could know, in all their details, the conditions under which it will be produced. But *these conditions are built into it and are part and parcel of its being; they are peculiar to that phase of its ht:story in which life finds itself at the m.oment of producing the form:* how could we know beforehand a situation that is unique of its kind, that has never yet occurred and will never occur again? Of the future, only that is foreseen which is like the past or can be made up again with elements like those of the past. . . . But an original situation, which imparts something of its own originality to its elements, that is to say, to the partial views that are taken of it, how can such a situation be pictured as given before it is actually produced? All that can be said is that, once produced, it will be explained by the elements that analysis will then carve out of it. Now, what is true of the production of a new species is also true of the production of a new individual and, more generally, of any moment of any living form.[214]

an identical "quiddity," the "concrete " universal takes existence as the basis for an analogous predication concerning individuals of a specific interaction grouping. In brief, the concrete universal is a general notion, identical with the whole of the individuals from which we obtain it. Such a conception seems to derive its fundamental possibility from the type of analogical predication referred to traditionally as "analogy of inequality" or (more precisely) "analogy on the part of the things judged, but not on the part of the concept predicated." Cf. Adler, "Solution of the Problem of Species," pp. 356 ff. St. Thomas, *In I Sent.,* d. 19, q. *5,* a. 9! ad 1. Cajetan, *De nominum analogis,* cap. 1; *Summa,* I-II, q. 66, a. 1 ad I.

In a similar view, Charles De Koninck comments: "C'est que tout concept formellement scientifique est fonde sur une induction incomplete indefiniinent perfectible--l'inductio *per descensum* ne peut jamais rejoindre !'experience au point de fermer le concept et d'en faire un universe! proprement dit: sa genese meme n'est jamais terminee." *(Art. cit.,* p. 397). Cf. further R. G. Collingwood, *Speculum. Mentia* (London: Oxford, 199.!4), pp.

[214] Bergson, *Creative Evolution,* pp. 32 f., emphasis supplied. Cf. Bergson, "The Possible and the Real," *The C1·eative Mind,* M. L. Andison, trans. (New York: Wisrlom Library, 1946), pp. 91 ff., esp. 99-104.

Within this strictly delimited context, then, we may appropriate this striking formulation of Bergson: Evolution " creates, as it goes on, not only the forms of life, but the ideas that will enable the intellect to understand it, the terms which will serve to express it. That is to say that its future overflows its present, and cannot be sketched out therein in an idea." [215] It does but express the necessary consequence of the realization that the natural kinds, such as " the class of Birds and the class of Fishes," can be distinguished only by means of characters rooted in certain dispositions of matter, of "properties" which are of the composite and never (even as signs) of the form alone; and cannot be the subject of a notion strictly speaking abstract, or of a definition in the logico-metaphysical sense- the necessary consequence, as De Koninck says, of the distinctively modern and even Darwinian discovery that, so far as the structures of existence in time go, "the problem of contingency in nature is not limited to questions of chance and fortune, even if these two forms of contingency are the most evident"; for the very forms themselves which articulate nature have a fixity which is only feigned.[216]

It is the insufficient determination within the various grades of nature which makes possible events which go beyond even the limits of a specific natural grade, so that the contingency proper to chance presupposes a contingency, a *mutabilitas* in the natural cause. Whatever might be the perfection of its form, there ever remains in the composite a margin of indetermination which exceeds the formal determinations, and which constitutes the possibility of that form either falling short of its full realization, or producing an effect in nowise predetermined in either universal or particular nature (since this margin exists for the whole of nature as well) .[217]

One sees thus in what sense we can speak of the *creation* of possibles. (Obviously, creation is taken in a very broad sense.) And this idea applies not only to chance and fortune, but to the nature itself. We have already explained that the infrahuman cosmic species are not absolutely determined as regards their struc-

[215] *Creative Evolution,* p. 114.
[216] De Koninck, *art. cit.,* p. 285.
[217] *Ibid.,* pp. 241-2.

ture, nor consequently true a-priori. Each natural kind is new in its structure. Once established, it constitutes a determined point of departure for other species in which the determination of their source and stem will in a certain fashion be prolonged: this determination has opened the world to essential structurations which would not have been determinately possible without it.[218]

Hence the need for never ending research, the danger of deductive postulations concerning the fulfillments of nature: " As a thing stands with regard to being, so does it stand with regard to truth. For the truth of those things which do not always stand in the same relation to being is not unaffected by change," since indeed " reality is not referred to knowledge but the reverse." [219]

These considerations make it possible, I think, to see that the morass of philosophical perplexities in post-Darwinian thought are due to a certain ambivalence and equivocation in the species problematic of traditional philosophy, which ambiguity the rise of evolutionary science served to underscore and make unmistakable. At the same time, by disengaging the philosophical concepts underlying the species problematic of modern biology, these considerations also make it clear that evolutionary science has not altered the structure of the question of essential natures or kinds as the metaphysician poses it, although evolutionary science has made it clear that none of the natural kinds -oysters, butterflies, elephants, eels-are so constituted causally as to correspond to the *infima seu atoma species*, the " indivisible kinds," of which traditional philosophy so long spoke. Since there is no evidence that any ecological population as such is differentiated by a single formal property, and vast evidence that none is so constituted, it is a violation of the principle of parsimony to insist that any of the typical popula-

[218] *Ibid.*, pp. fl51-fl.

[219] St. Thomas, *In Met.*, II, lect. 2, n. fl98; and V, lect. 9, n. 896, respectively. (See also n. 895). Cf. Alexis Carrel, *Reflections on Life*, p. 60; *Man the Unknown* (Harper & Bros., 1939), p. 3fl1; Pierre Teilhard de Chardin, *The Phenomenon of Man*, pp. fl73 fl'.; Gardner Murphy, "Man-World Relations," *Human Potentialities*, pp. 21 fl'.; G. H. Mead, *Mind, Self, and Society* (Chicago: University of Chicago Press, 1934), pp. 203 fl'.

tions we readily distinguish differ as populations according to the mode termed "radical" or (traditionally) "specific." If we choose to use as our primary reference for the term species " the natural groups afforded by the instincts of mankind," as Aristotle put it, or " the categories of science illumined by philosophic knowledge " of which Maritain and Maquart speak, [220] then it is impossible to retain the notion of specific natures as being convertible with metaphysical essences without disastrous confusion and an adventure in myth-making. We must rather acknowledge forthrightly that the hierarchy of essences does not correspond to nor reveal the disposition of species.

Whether the disposition of species reveals anything about the hierarchy of essences-perhaps that it does not, after all, exist -even though the former cannot correspond to the latter, is our final question. In other words, the relation of evolutionary species to the philosophical doctrine of the immutability of essence, the question of " the influence of Darwinism on philosophy," of the mutual interimplications of the respective primary concerns of the traditional and the modern species problematics, can now be seen to come down to this: once the notion of species as genetic populations has been laid bare in its ontological ground, does the notion of species as essential kinds (i. e., kinds related in such a way that each substance of a given specific nature has an essential or radically constitutive perfection lacked by its proximate inferior in specific nature, and lacks an essential perfection possessed by its proximate superior in specific nature; so that, since the whole essential difference between essentially distinct kinds lies in the diversity of their substantial forms as rendered diverse by virtue of a positive and negative difference rooted in a common perfection, essentially distinct kinds *as* essentially distinct *mu,st* be ordered in a perfectly ordered series or unilinear hierarchy in which: a] each member has a unique position, b] there is no coordination or equality of rank, and c] each member comes

[220] See F.-X. Maquart, *Elementa Philosophiae,* Tomus II, philosophia naturalis (Paris: Blot, 1937), esp. pp. U-16.

before or after another in the ascending or descending scale of being) -does this notion retain any explanatory power at all? Or does it, like the notion of the *infima species*, belong to the historian of ideas and the category of philosophical myth?

Granted that the traditional and modern species problematics are and have been shown to be diverse in orientation, do their secondary implications illumine or contravene one another?

Since the traditional species problematic is inextricably bound up with the question of a natural hierarchy, it will be easy to engage it in the implications of the modern species problematic if we can show that the modern problematic as well implies inescapably a natural hierarchy. Once this has been shown, we will be in a position to judge whether the implications of the two problematics are contrary or mutually illuminating. The question of the influence of Darwinism on philosophy thus turns out to be simultaneously the question of the influence of philosophy-traditional philosophy at that-on Darwinism. It is the problem of the two hierarchies.

Let us move to a position where it comes into view.

VII. THE OPERATIONAL DISPLACEMENT OF TYPOLOGICAL THOUGHT IN ITs IMPLICATIONs FOR HIERARCHY.

Against the immediate background provided by this preliminary philosophical analytic and before attempting a concluding summarization of the eidetic character of organic evolution in terms of hierarchy, we must mention one other significant component of the development in this century of the science of genetics (not paleontology, as philosophers often assert) as the foundation of evolutionary explanations.

We have already seen how all explanation which accounts for reasons of being must pattern itself on a factorial conception of causality. To the extent that one or more of the four factors is unaccounted for, the explanation remains incomplete. It is possible, however, to attempt an explanation in terms of a reductive rather than factorial conception of causality, and such reductive explanations may take either of two forms. The

more important mode of reductive analysis is that which was first given expression by the Pythagoreans and the astronomers of the Academy, later taken up again by Galileo, Descartes, and Newton and subsequently extended in our own time into a universal science of nature. This is the "explanatory" method of mathematical-physics, a science which knows the real only by transposing it and not as the physical real, since it captures in things only that kind of formal cause which is the conformity of phenomena to mathematical law, and which is the basis of prediction and control inasmuch as the intelligible necessities susceptible to mathematical formulation are transcendent to the sensible object as such and insofar indifferent to its existential status. In itself, this method of converting a physical into a mathematical description constitutes a marvellous and exceptional instrument of natural science in its efforts to assign reasons for being; and so employed, it need not be a reductive explanation.

Since, however, knowledge formulated in the physico-mathematical pattern is formally and specifically distinct in its mode of definition from knowledge formulated in the philosophical pattern of "causes," there is always the danger that the instrument will be taken for an explanatory scheme in the full sense, **and** at once we are in the line of a reductive conception of causality. [220a]

[220a] J. Schwartz observes that "in its relations with science mathematics depends on an intellectual effort outside of mathematics for the crucial specification of the approximation which mathematics is to take literally." "The literal-mindedness of mathematics thus makes it essential, if mathematics is to be used correctly in science, that the assumptions upon which mathematics is to elaborate be correctly chosen from a larger point of view, invisible to mathematics itself. The single-mindedness of mathematics reinforces this conclusion. Mathematics is able to deal successfully only with the simplest situations, more precisely, with a complex situation only to the extent that rare good fortune makes this complex situation hinge upon a few dominant simple factors. Beyond the well-traversed path, mathematics loses its bearings in a jungle of unnamed special functions and impenetrable combinatorial particularities. Thus, the mathematical technique can only reach far if it starts from a point close to the simple essentials of a problem which has simple essentials. That form of wisdom which is the opposite of single-mindedness, the ability to keep many threads in hand, to draw for an argument from many disparate sources, is quite foreign to mathematics." "Related to this

The only other way to fall into reductive explanations is to simply fail to see that the analysis of structure and function in nature always involves four correlated aspects, composition and organization as correlates of structure, agencies and products as correlates of function. Thus, for example, just as we cannot describe an organism except by telling what its parts are made out of and indicating how these parts are put together to form the whole, so we cannot fully understand the organism unless we grasp why each step in its development was necessary if maturity was to be reached; and this in turn requires a grasp of the forces and processes involved and of the agencies which give rise to them. Just as, in brief, composition and organization are correlative aspects of the natural unit which cannot be described separately, so the forces which produce a thing and the thing itself as end product cannot be described separately.

In short, since all explanation assigns reasons why, i.e., states causes, any given explanation must be either factorial, in which case it states all four relations which respond to the question why; or reductive, in which case a mathematical expression is taken for the only or fullest rational understanding possible, or else it is a question of a methodology which is not transparent to itself, which misunderstands its own dimensions and their interrelations. This latter type of reductionism is characteristic indifferently of atomistic and mechanistic explanations.

deficiency of mathematics, and perhaps more productive of rueful consequence, is the simple-mindedness of mathematics-its willingness, like that of a computing machine, to elaborate upon any idea, however absurd; to dress scientific brilliancies and scientific absurdities alike in the impressive uniform of formulae and theorems. Unfortunately, however, an absurdity in uniform is far more persuasive than an absurdity unclad. The very fact that a theory appears in mathematical form ... somehow makes us more ready to take it seriously. And the mathematical-intellectual effort of applying the theorem fixes in us the particular point of view of the theory with which we deal, making us blind to whatever neither as a dependent nor as an independent parameter in its mathematical formulation." ("The Pernicious Influence of Mathematics on Science," in *Logic, Methodology and Philosophy of Science,* ed. by Ernest Nagel, Patrick Suppes, and Alfred Tarski, Stanford: The University Press, pp. 356-8, *passim.* See Thomas Aquinas, *In libros Aristotelis de caelo et mundo expositio,* Bk. I, lect. 3, n. and Bk. III, lect. 3, n. *560.* Also fn. 70 in Part I of Nogar and Deely, *The Problem of Evolution)* .

Historically, until very recent times, mathematicism and mechanism have always been closely associated, no doubt because mechanism provides a way of giving to a mathematical theory a physical, imaginable model; but conceptually the two approaches to explaining natural change are quite distinct.

Historically, these three distinctive explanatory modes were first articulated and consciously employed by the early Greeks, and despite their subsequent sophistication in application to ever extended areas of experience, they still and will always express the distinctive point of view and method associated, respectively, with Aristotle, Plato, and Democritus.

For our context, these remarks are helpful in that they provide a background against which it becomes possible to see that in order to resolve the "family quarrel" between the Linnaean theory of a fixed and immediate creation of species and the Darwinian theory of the evolution of species, biology had to resort to the methods of reductive analysis, what we may call empiriological (changing our terminology here, be it noted, from that of previous authors) as against typological thought, understanding by this latter term all those theories of specific natures which are characterized by a tendency to identify natural kinds with essential kind in the metaphysical sense and so to perpetuate the myth consequent on the error of univocally ontologized kind-essences (or even to supplement or supplant it with the myth of vitalism as well) .

Such a resort to empiriological rather than philosophical formulations was possible because, even though, as Waddington has shown, the real objects of interest to evolutionary science are subjects of processes which require a factorial rather than a reductive analysis, nonetheless, involved in organisms as undergoing constant change are certain invariant relationships as expressed in the Hardy-Weinberg equation that underlies modem population genetics. Such a resort was probable in the cultural context of modern science which tends to regard physico-mathematics as the paradigm rather than one mode of rational understanding. Such a resort was perhaps necessary in the face of the refusal of typologists generally to respect integrally the requirements of parsimony.

In any event, it is a fact that the mathematical formulae of population genetics, as theoretically elaborated in the brilliant works principally of Fisher, Wright, and Haldane, [221] structure operationally the professional scientists' understanding of evolution. With a certain justice Ernst Mayr holds the opinion that " history shows that the typologist cannot and does not have any appreciation of natural selection," because " the typologist interprets natural selection as an all or none phenomenon." "Basically," therefore, " the arguments of the antiselectionists rest on an inability to appreciate the statistical nature of selection." [222] Since, moreover, typological thinking once characterized the thought of the West, and its scientific thought as much as and in some ways more than its philosophical thought, Dobzhansky considers that it was impossible to express in a convincing way the complexity, power, and subtlety of evolutionary selection's operation over the two billion years plus of life's history on this planet until the discussion could be placed on a quantitative basis. [223]

In terms of this " quantitative basis," Dobzhansky summarized the present empiriological state of the question in a set of passages which we may cite directly for reasons of both economy and clarity.

> Platonic philosophy [which is Dobzhansky's term for what Mayr calls more accurately typological thinking] considers the elusively multiform, always changing natural phenomena to be mere shadows of the immutable ideas, of the eternally fixed essences of things. This philosophy has appealed to many scientists. Individual organisms and living populations are often supposed to represent imperfect incarnations of ideas, patterns, or types of their respective races, species, genera, etc. In 1896, the great anthropologist Virchow defined human races as " acquired deviations from the original type." *Acceptance of the biological evolution theory did not completely overcome the notion that the annoying variability*

[221] Their classics are: R. A. Fisher, *The Genetical Theory of Natural Selection* (Oxford: Clarendon, 1930); S. Wright, "Statistical Theory of Evolution," *Genetics,* 16 (1931), pp. 97-159; J. B. S. Haldane, *The Causes of Evolution* (New York: Harper, .

[222] Mayr, *Animal Species and Evolution,* pp. 183, 184, and 185, respectively.

[223] Dobzhansky, *Mankind Evolving,* p. 140.

of individuals is somehow a false front which conceals slowly changing racial or species types. The fiction of types is indeed helpful for the purpose of classification and of cataloguing organisms.[224]

([Thus:] A museum systematist is perforce confined to describing the structural differences in his materials. The assumption implicit in his work is that a fraction of genetic differences between populations are reflected in morphological traits, and, hence, the morphological descriptions reflect reasonably accurately the magnitude of the genetic differences between the races, species, genera, etc. This assumption is on the whole justified, but some groups are known in which the genetic divergence may be accompanied by little morphological divergence.[225] [Similarly:] It is also a great, though highly misleading, simplification for a physiologist or a medical man to believe that different individuals, or different patients, should react alike to similar treatments.[226] [Yet:] Although any change in the bodily structures is of necessity a sequel to physiological developmental processes, some physiological differences are not accompanied by detectable changes in the visible morphology.[227])

The fictitiousness of the types has been shown by the Hardy-Weinberg's demonstration of the genetic equilibrium. The spatia-temporal entities in sexually reproducing and cross-fertilizing orga·· isms are individuals *and* Mendelian populations. Every individual carries a constellation of genes, which is not likely to be found in other individuals. A population has a gene pool, from which thC; genes of individuals spring and to which they usually return. *Gene frequencies and variances .. rather than averages, characterize Mendelian populations.* Superficially considered, natural populations of most species seem to consist of normal, or wild-type, individuals, which owe their origin to mutation. A closer study shows that the wild-type is also a fiction. "Normal" individuals are actually a heterogeneous collection of genotypes, the common property of which is that they possess a tolerable adaptedness to the prevailing environments. When the heterogeneity happens to be striking to the eye, or easily detectable by some method, it is referred to as polymorphism. Polymorphism is a loose descriptive term; all Mendelian populations are more or less polymorphic.[228] ([Thus, for example:] Sibling species are reproductively isolated

[224] ··· Dobzhansky, *Genetics and the> Origin of Species,* p. 108, my emphasis.
[225] *Ibid.,* p. !'I67.
[226] *Ibid.,* p. 108.
[227] *Ibid.,* p. !'I67.
[226] *Ibid.,* pp. 108-9, my emphasis.

Mendelian populations, the members of which show few or no easily visible differences in the bodily structures.[229] Some authors have argued that sibling species should not be considered species because museum taxonomists can not distinguish them in materials preserved by time honored methods. Species are, however, phenomena of nature which exist regardless of our ability to distinguish them.[230])

For over half a century evolutionists held for the concept of natural selection against the persistent denials and arguments of the typologists; but not until the discovery of Mendelian heredity could they deal with the concept in an adequately operational manner, in a manner, that is, which could effect a *demonstratio ad oculos* (for those with eyes to see). The reason is simple. "The essence of Mendelian heredity is that it is particulate"; and it is precisely "the particulate nature of inheritance [that] enables calculations to be made as to the proportion of offspring of different types in different generations after a cross. Like the atomic theory in physics, it is the basis of quantitative treatment."[231]

Thus, for example: " 'Improbable' events and constellations of genes play a role in selection difficult for the typologist," viewing the fossil record, " to understand."[232] Yet, as Mayr (among many others) simply comments:

[229] *Ibid.,* p.

[230] *Ibid.,* p.

[231] Huxley, *Evolution: The Modern Synthesis,* p. 47. In his "New Introduction" to this classic study for the 1964 Wiley & Sons edition, Huxley notes: " The most comprehensive and up-to date exposition of the synthetic theory of evolution has just been given by Ernst Mayr in his magistral book, *Animal Species and Evolution* (1963). As he points out, a radical change in recent evolutionary thinking has been 'the replacement of typologie thinking by population thinking.' However, the modern synthetic theory still retains the combination of induction and deduction that underlay Darwin's original theory (p. iii)."

[232] Mayr, *Animal Species and Evolution,* p. 187. It is obvious and has to my knowledge never been denied that while genetic mutations are " random " with respect to the adaptive needs of the organisms in which they occur, they are not at all "random " with respect to the internal structure and chemical constitution of the gene which mutates and the factors at play thereon-including the influence of the immediately surrounding genes (of the "genotypic milieu "). "Mutations are limited," Spuhler points out, " by the structure of the gene which mutates and this structure is determined by the . . . forces . . . active in the history of the gene." ("Somatic Paths to Culture," in *The Evolution of Man's Capacity For*

Mathematicians have pointed out that evolution deals with numbers of such astronomical dimensions that even 'improbable' events may occur. Most species have millions of genetically unique individuals in every generation, each producing thousands or millions of gametes. There are thousands or millions of generations during the geological life span of each species. Under these conditions an event may become a certainty even if the chance of its occurrence is only one in a billion. Yet the total number of possible genotypes in a species is infinitely greater than the actual number of individuals. [232a]

Culture, ed. by J. N. Spuhler, Detroit: Wayne State University Press, 1965, p. 4).

Nonetheless, from within a reductionist perspective, or rather, in trying to get beyond reductionism without abandoning the accordance of primacy to a reductionist type of explanation, it is natural to have to resort to the most elaborate of theoretical contrivances in order to maintain some measure of contact with the sound intuitions of common sense. Thus Chomsky (in *Language and Mind,* New York: Holt, Rinehart & Winston, 1968, p. 83 and fn. 26 p. 88) seems to regard as some sort of fundamental breakthrough or basic insight the fact ("the non-trivial fact," as the phrase goes) that "it has been argued on statistical grounds-through comparison of the known rate of mutation with the astronomical number of imaginable modifications of chromosomes and their parts-that such laws "-i.e., "laws that determine possible successful mutation and the nature of complex organisms "–" must exist and must vastly restrict the realizable possibilities. See the papers by Eden, Schiitzenberger, and Gavadan in *Mathem<Ltical Challenges to the Neo-Darwinian Interpretation of Evolution,* Wistar Symposium Monograph No. *5,* .June, 1967."

It is true that the Neo-Darwinian perspective is usually conceived in a somewhat reductive manner; but that version of it which regards the rate and direction of mutational change as entirely extrinsic to the nature of the gene which mutates carries the tendency to reductionism to a ridiculous extreme, and one may wonder if one is not confonted here with one of those famous straw men which fill the writings of philosophers concerned with refuting other positions. "Typically," notes Schwartz *(art. cit.,* p. 360), "mathematics knows better what to do than why. Probability theory is a famous example." One· is hardly justified in asserting on such a basis that to attribute the development of organisms across prehistory to evolutionary selection " is perfectly safe . . . so long as we realize that there is no substance to this assertion, that it amounts to nothing more than a belief that there is some naturalistic explanation for these phenomena." (Chomsky, p. 83). That nature always underlies the random is an insight quite independent of statistical arguments, which is at least as old as Aristotle (see *Physica,* II, chs. 2-6, esp. 198a9, *inte1· alia);* and to assert that the laws determining this underlying structure and function remain shrouded in "total mystery" (Chomsky, p. 83) is to dismiss at a stroke not just the research into DNA, but the whole of evolutionary biology as though it did not exist, or consisted entirely of groundless conjecture.

•••a Mayr, *Anim<Ll Species and Evolution,* p. 187. See also Dobzhausky, *Genetics and the Origin of Species,* pp. 254 and *255:* "Nothing can be more certain than that only au infinitesimal fraction of the possible gene combinations can ever be

Thus we find in contemporary biology, even as at various other stages in Western intellectual history, a working explanatory combination of a mechanistic model with a mathematical theory. We have already noted how the method of converting a physical description into a mathematical one can either be mistaken for the constitution of a new level of natural science, and so become a reductionism, or be rightly recognized as an instrument used by the natural scientist-a technique, albeit exceptional, like his other techniques-in his effort to analyse and discriminate the factors of processes, their always fourfold reasons for being.

We have also seen, in Section IV above, how the establishment in evolutionary science of the factorial as superordinate to the reductive view of causation, already implicit in Darwin's work, has only recently and not yet universally come to be recognized as inevitable for the further maturation of the evolutionary explanatory scheme.

Now we are in a position to see how this tendency to reductionism in evolutionary theory has generated a false issue in philosophy by requiring a choice between an evolutionary process which was tending toward man as to an end, and therefore had to be a predetermined unfolding leading steadily to man along a central line of advance visible in the fossil record, or an evolutionary process in which randomness and opportunism play a central role, and which therefore could neither be predetermined to advance along a central line nor oriented to man as toward an end in some sense.[233]

realized in organisms the genotypes of which consist of hundreds of thousands of genes. The potentially possible gene combinations constitute, however, the 'field' within which evolutionary changes may occur. The adaptive values of the gene combination are, of course, not alike." "... gene patterns which differ in only a few genes usually have more or less similar adaptive values. The patterns with superior adaptive values form the 'adapt'ive peaks'; the peaks are separated by the ' adaptive valleys ' which symbolize the gene combinations that are unfit for survival and perpetuation." (It is noteworthy that, at any *given* stage in the geologic environmental sequence, " some gene combinations which actually appear from time to time, and probably the vast majority of the potentially possible ones, are discordant and unfit for survival." *[Ibid.,* p. 254].)

[233] It seems to me that this is reflected in T. A. Goudge's well-known study, *The Ascent of Life* (Toronto: University of Toronto Press, 1961).

To achieve this perspective, it will be necessary and sufficient to show that a random, opportunistic process the actual course of which could not be foreseen in advance is not incompatible with an evolution necessarily tending toward man. In other words, the reductionist tendency in biology has generated a false issue by making it impossible to recognize that there need not be a pre-determined end-point in order for an over-all system of processes to change deterministically along a definable and recognizable course as time passes by reason at once of the closed, circular causal organization of the system, and of the irreducible levels or zones through which the system must pass if the causes of its sub-processes remain operative.

We will proceed in two steps. First, we shall show, with Waddington's help, why the reductionist or empiriological formulation of the evolutionary mechanism must reject the thesis " that it is possible to discern in the results of evolution some general overall direction of change which can truly be regarded as a special direction," inasmuch as " the direction is one which in some way arises as a result of the general structure of the universe; that is, it is not merely a direction in which progress happens to have occurred, but, in some of its aspects at least, it has the character of an inevitable consequence of the nature of the evolutionary process and the organisms involved in it." [234] In short, we shall see why a reductionist view is incapable of making sense out of the datum of progress as such in biological evolution.

Second, we shall show that even by adopting the perspective consequent on a mechanistic view of evolutionary causation, the arrangement of the living world in an over-all hierarchical pattern is a necessary result of the operation of evolutionary selection.

Then, in Section VIII, we will see in what sense it is possible to discern interior to this imperfect empirical hierarchy a perfect hierarchy of irreducible intelligible grades. In that way it will be seen how the notion itself of species in traditional

[234] C. H. Waddington, "The Possibility of Evolutionary Theory," in *The. Ethical Animal,* p. *65.*

philosophy-once shorn of its ambiguities and uncertainties-can render the evolutionary data concerning species more intelligible in their own line of explanation which is not mathematical nor mechanistic (the natural kinds are no more mere proportions of genes than they are numbers) but that of natural philosophy, wherein are assigned proper reasons for the endless changes in nature.

Concerning the first point, then, the following passages are sufficiently clear:

> Most biologists at the present day, in expounding evolutionary theory, seem to be content to leave it that the mechanism by which evolution has been brought about is composed of these two major factors: the genetic system with random mutation on the one hand and natural selection on the other. The evolutionary pressures exerted by these two factors are exhibited as being quite external to the nature of the organisms involved. The evolutionary pressure exerted by the genetic system is that of mutation, and mutation, it is explained, is a random process. Any explanation which might be offered for the nature of the mutational changes would have to be found, it is asserted, in the chemical composition of the genes and not in the nature of the complete biological organism in which these genes are carried. Mutation thus appears as essentially an external force to which the organism passively submits. Again, natural selective pressures are usually thought of as arising simply from the external environment. When the climate changes, a new predator appears, or industrial fumes blacken the tree trunk on which the animal lives, the populations of organisms concerned cannot, it is usually implied, do anything but submit to these pressures and wait until the equally uncontrollable process of mutation throws up a new hereditary variant which enables them to meet the enviornment's challenge more successfully. [235]

Now, with such a mechanism-random mutation in selective but unresponsive environments-it would appear difficult to find any principle which would produce any specific direction of evolutionary change. All evolution would appear to be purely a contingent phenomenon, which just happened to go in the way that it did, but for no ascertainable reason. One could admit, of course, that the mechanism of natural selection is one which will, as has been

[235] C. H. Waddington, "The Biological Evolutionary Theory," in *The Ethical Animal,* p. 88.

frequently pointed out, produce states of extreme improbability by preserving just those particular chance variations which happen to fit in with the environment and rejecting all others, but there seems at first sight to be nothing which could decide as to which state of improbability will be favoured.[236]

Within an explanatory perspective basically similar to this. it is evident why Dobzhansky, following Simpson and Blum, can only conceive, " broadly speaking, two kinds of interpretations of evolution. One kind supposes that any and all evolutionary changes that ever occurred were predestined to occur. The other kind recognizes that there may be many different ways of solving the problems of adaptation to the same environment; which one, if any, of these ways is in fact adopted in evolution escapes predetermination."[237] In fact, there is a third kind of interpretation. Plato and Democritus between them did not exhaust the possibilities of causal explanation-only the reductive conceptions of it.

But secondly, and what is of much greater significance than the foregoing negative point, evolutionary theory today requires-and this is agreed to by all who understand it-that because the diversity and discontinuity of the living world on the one hand, and its adaptation to the environment on the

[236] *Ibid.,* p. 89. I have no doubt that G. G. Simpson would reject this sketch of Waddington's as accurately capturmg his understanding of the evolutionary mechanism. "It was a crude concept of natural selection," he writes *(The Meaning of Evolution,* p. 223), "to think of it as something imposed on the species from the outside. It is not, as in the metaphor often used with reference to Darwinian selection, a sieve through which organisms are sifted, some variations passing (surviving) and some being held back (dying). It is rather a process intricately woven into the whole life of the group, equally present in the life and death of individuals, in the associative relationships of the population, and in their extraspecific adaptations." I have no doubt either that Simpson's grasp of the process indeed is much more subtle than Waddington's Dtihrer-Iike etching. But all that is quite beside the point. As long as one insists on stating the four-factor process in two-factor terms, one cannot completely escape a reductionist tendency toward what Waddington describes as toward an ideal limit.

[237] Dobzhansky, *The Biology of Ultimate Concern* (New York: The New American Library, 1967), p. 61. See also H. F. Blum, "Dimensions and Probability of Life," *Nature,* 206 (1955), p. 131; and G. G. Simpson, "The Nonprevalence of Humanoids," in *This View of Life,* pp. 253-271.

other, are seen as causally related, the arrangement of the natural kinds must be structurally hierarchical. This has been clearly stated by Julian Huxley:

> Improvement of general organization is brought about by a succession of successful types. Each type achieves its evolutionary sucess by virtue of superior organization, and as a result evolves into a new taxonomic group which radiates (undergoes cladogenesis) at the expense of the earlier groups in competition with it, including the group of similar taxonomic rank from which it has originated, though this may and usually does persist in reduced numbers. This process appears to apply to the anagenesis [upward evolution] of all taxa from the genus upward, *and indeed inevitably results in a taxonomic hierarchy.* [238]

Thus, even within the insufficiently differentiated (so far as the modes of causation go) explanatory scheme according to which "natural selection is the only objectively established antichance evolutionary factor," [239] the main modes under which

[238] Huxley, *Evolution: The Modem Synthesis,* "New Introduction " (1964), pp. xxii-xxiii, my emphasis.

[239] Simpson, *This View of Life,* p. 228. "The theory does not demand and the facts do not indicate that selection is always effective or that at its most effective, it can eliminate all unfavourable mutations immediately." *(Tho Meaning of Evolution,* p. 224) . What the theory does require, however, the facts do obligingly indicate--specifically, that " by and large, high Darwinian fitness (i. e., reproductive success) does go together with the maintenance or advancement of harmony between the organism and its environment." (Dobzhansky, *Mankind Evolving,* p. 130). Thus Dobzhansky observes that, while "we must beware of thinking that the nature of an organ is explained [exhaustively or even quite a.dequately] by finding out the function which this organ performs," among contemporary scientists "the fear of teleology can be carried too far. Some biologists go to the extreme of saying that the function of an organ has nothing to do with its being there. Yet nobody can deny that man has eyes to see with, and a mosquito has its mouth parts to get blood with. It is pedantic to quibble even about the statement that the purpose of the eyes is seeing. There is really nothing objectionable about such a statement which simply describes what the organ does, provided that one always keeps in mind that *the presence of an organ and its function are at the opposite ends of a long ani£ complex chain of cause-and-effect relationships.* Some of the connecting links in this causal chain are the processes of mutation, sexual recombination, and natural selection over a long series of generations." (Dobzhansky, *Evolution, Genetics, and Man,* p. 231; emphasis supplied). It is in the light of the evolutionary process which molds an organ gradually so that it becomes increasingly apt for the performance of a given adaptive function that one sees clearly the advantage of replacing the historically overtoned term

selection operates are sufficient to guarantee a hierarchical arrangement of forms, albeit imperfect and susceptible of multi-

" teleology " with the modern term coined to denote precisely the phenomena of evolutionary adaption, " teleonomy." (The case is analogous to the substitution of "astronomy" for "astrology"). See Enrst Mayr, "Evolution and Causality."

Thus C. S. Pittendrigh remarks ("Adaptation, Natural, Selection, and Behavior," in *Behavior and Evolution,* pp. 396 and 393-4): "The refusal to admit that the turtle came ashore *to* lay its eggs was intended as a pious assertion that a causal analysis was the only proper course open to the biologist. But it is clear now that no organization-living or non-living-is ever fully explained by a causal," i. e. (as the author makes clear in context), physiological, " analysis of its operations." " Another way of putting this is to say that an exclusively causal explanation of life is possible but only if organisms are not abstracted from their concrete history." All in all, "today the concept of adaptation is beginning to enjoy an improved respectability for several reasons: It is seen as less than perfect; natural selection is better understood; and the engineering physicist in building end-seeking automata has sanctified the use of teleological jargon. It seems unfortunate that the term ' teleology ' should be resurrected and, as I think, abused in this way. The biologist's long-standing confusion would be more fully removed if all end-directed systems were described by some other term, like ' teleonomic,' in order to emphasize that the recognition and description of end-directedness does not carry a commitment to Aristotelian [?]teleology as an efficient causal principle."

And to these remarks we may append the interesting comments of Maritain (" Ontology and Empiriology in the Study of the Living Organism," in *The Degrees of Knowledge,* pp. *passim):* "It would certainly be foolish to ignore the role already played by physico-chemical analysis (and hence calculation) in biology, a role which is destined to increase daily - - - - As a matter of fact what is so studied is the material conditioning, the material means of life. And, since everything within the living organism is effected by physico-chemical means, this analysis can and should progress indefinitely." "Does this mean that some day it will exhaust biological reality? By no means. For if within the living thing everything is effected by physico-chemical means, everything is also effected by the soul (and its vegetative powers) as first principle - - - - Thus, for example, while the ontological concept of finality has its place among the explicative concepts of the Philosophy of Nature, *the facts of biological finality represent for physico-chemical analysis only an irrational that must be reduced as much as possible.* And, for the properly biological experimental analysis of which we have been speaking, *those facts come under an empiriological concept that may be designated by the same name of finality, but which should be completely recast,* and emptied of its philosophical significance. Here, *leaving aside any use of finality as a causal explanation, it will merely express that general pre-explicative condition,"* i.e., a condition of simple observation presupposed by the explanation and which itself plays no explicative role, " *that the functions of the living thing, and the use it makes of its own structure, serve for the continuance of life.* As for the concepts of the soul and of vegetative powers, they play an indispensable role in the Philosophy of Nature, but remain outside the domain of properly biological experimental analysis as well as of the physico-chemical analysis of the phenomena of life." On

linear arrangements.[240] "Indeed it can be argued," observes Nogar, "that in the evolutionary sequence of naturally related species, we find the same hierarchical order on the horizontal (space-time) plane that St. Thomas finds on the vertical plane of existing organisms."[241] It is clear from this that, even if we adopt a reductive perspective within the explanatory scheme of modern evolutionary science, the modern and traditional species problematics do interarticulate; but since "no set of terms which are constituted by diverse positive differences, rooted in diverse perfections, can be hierarchically ordered as *essentially* higher and lower *inter se,*"[242] it remains to show in what manner the perfect hierarchy of essential species may without contradiction exist within the imperfect hierarchy of genetic and morphological species, and how the former renders the latter more intelligible in its own line.

the metaphysical bases of the empirological formulation of finality, see the same author's *A Preface to Metaphysics* (New York: Mentor Omega, "The Principle of Finality: First Aspect," pp. 103 ff.; "The Principle of Finality: Second Aspect," pp. 107 ff. It was in this connection that Bergson was able to remark (though w'ithout anything like an accurate understanding of the factors providing his basis): " *The philosopher, who begins by laying down as a principle that each detail [of the evolutionary process] is connected with some general plan of the whole, goes from disappointment to disappointment as soon as he comes to examine the facts;* and, as he had put everything in the same rank, he finds that, as the result of not allowing for accident, he must regard everything as accidental." *(Op. cit.,* p. 116: emphasis supplied. Cf. Simpson, *The Meaning of Evolution,* pp. and 167). It is precisely in disclosure of a contingent substantial dimension in the 'world of necessary natures that the evolutionary concept strikes at the heart of nineteenth-century idealism (see G. W. F. Hegel's statements in *Enzyklopiidie der philosophischen Wi.ssenschaften,* ed. by F. Nicolin and 0. Poggler (Hamburg: F. Meiner, 1959], par. 249, p. and perhaps, at any Whiteheadian "philosophy of organism" as well. See Ashley, "Change and Process." See also Merleau-Ponty's critique of the reductionist conception of causality in biology, as sketched by Remy Kwant in *The Phenomenological Philosophy of Merleau-Ponty* (Pittsburgh: Duquesne, 1963), esp. pp. "The fundamental character of subjectivity."

[240] The main modes of selection can be reduced to four: 1) It determines the direction of evolutionary change (dynamic or directional selection); It diversifies living things along the available economic paths open to the forms at any given time or place (diversifying selection); 3) It maintains the level of existing adaptive improvements (normalizing, centripetal, or sta]:)ilizing selection, within the group; balancing selection between groups); 4) It " neglects," i. e., the absence or deficiency of adequate centripetal selective pressure allows degeneration.

[241] Nogar, " Evolution: Scientific and Philosophical Dimensions," p. 30.

[242] Adler, " Solution of the Problem of Species," p.

VIII. THE TWO HIERARCHIES

We have seen in all the foregoing that contemporary evolutionary science maintains the reality of substantial species both *secundum se* and *quoad nos,* and that this suffices to remove the direct contradiction between the scientific conception of nature and the hylomorphic conception. We have shown moreover that the scientific notion of species implies their hierarchical ordering, in an imperfect or multilinear sense. On the other hand, we have made reference to the fact that the traditional concept of species as essential kinds implies a hierarchical ordering in a perfect or unilinear sense.[243]

In order, finally, to show how these two views, far from being incompatible, are mutually illuminating, we shall have to establish four further points. First, it: will have to be shown how the genetic conception of the individual organism implies a doctrine of substantial form. Second, we shall have to show how the doctrine of substantial form set in the context of the possible modes of difference leads to a doctrine of essentially distinct " species," or, more exactly, of irreducible grades of being through which *any* process of anagenesis on *any* planet would have to pass if it were to continue. Third, we shall have to show how, in the existential establishment of these grades, there is room for the unforseeable and the undetermined-for chance and the opportunistic-without the phenomenon of progress being reduced to a mere contingent path. In other words, we shall see why the fact that " the fossil record shows very clearly that there is no central line leading steadily, in a goal-directed way, from a protozoan to man," that there has been instead " continual and extremely intricate branching," so that " whatever course we follow through the branches there are repeated changes both in the rate and in the direction of evolution," [244] is entirely compatible with and even implied by

[243] I consider the available literature on this point to be demonstrative. See fn. 124 above. If I am mistaken, I shall be glad to be so proven.

[244] Simpson, "The Nonprevalence of Humanoids," in *This Vi.ew of Life,* p. 265. Simpson develops this point thoroughly in *The Meaning of Evolution;* see esp. ch. X' "The Problem of Problems," pp. 123-9.

the fact that only the essential thresholds of ontological difference exhibit an apriori necessity and (in that sense) predetermination-a" hypothetical necessity": if there is a development of life, then there are only three possible levels which it can traverse.[245] Finally, we shall have to consider the causal possibility of the passage from " lower " to " higher " grades.

Then the influence of Darwin on philosophy and vice versa -the mutual implications of the modem and traditional "species" problematics-will be clear.

To begin with the first point, we are right back with the question of the difference between science and philosophy in terms of their relation to experience. In the particular case that concerns us now-the transition from genetic to substantial individuality-the medium is the organizational correlate of structure identified by Aristotle as " formal cause." We know that the " material cause " of the individual organism, the compositional correlate of structure, are DNA-RNA molecular groups, genes, chromosomes, etc. We know that what differentiates them is not only their different components but the way these components are arranged with respect to one another-their organization. This is summed up by Mayr and others by reference to " the unity of the genotype," the fact that, although the genes are transmitted as more or less discrete, unblending units, they function as interacting and cooperative sets in the organism's development, controlling the metabolic pattern as such which governs the development of the organism as a whole and establishing a "reaction range" outside of which the organism cannot be pushed without ceasing to be itself. Thus in the concept of the genotype as circumscribing both the capacity and the limitations for development of the organism there is a twofold element, an empirical, sensible element subject to observation and direct manipulation (the arrangement of the genotypic components with respect to one another) and an intelligible, non-empirical element, the *unity itself* of the genotype, expressible through

••• See De Koninck, *art. cit.,* p.

and demonstrable in the phenotype, which is inferred and without which the "organism as a describable object" would not be possible, but which is directly neither observed nor observable. Now that principle of unity, which is not that which exists but that by which the individual exists as a describable object identical with itself and distinct from all others, that intelligible ground of the prior possibility of a determinate being, is exactly what traditional philosophy intended by its notion of substantial form-" the first act of any material entity which determines its matter and gives it a constant tendency toward further completion." [246] (A parallel analysis of the intelligible apriori involved in the empirical composition of the genotype leads in exactly the same way to the traditional notion of primary matter as the capacity common to specifically or recognizably distinct unities to be converted one into the other.)

In my opinion, it may be going too far to say that here the concept of formal causality (parallelly, material causality) divides before the mind, so to speak, according to two specifically different modes of defining, one by resolution into the sensible, the other by resolution into the intelligible-the famous " perinoetic " and " dianoetic " intellections differentiating the " empiriological " realm of science from the " ontological " realm of natural philosophy-for the reason that the observable, manipulable organization and composition *themselves require* the inference of " form " *(materia actuata)* and "matter" *(materia actuabilis)* as intelligible principles of the intrinsic constitution of existing and genetically constituted individuals. Nothing more is involved in these two levels from the philosopher's point of view, it seems to me, than the distinction between first and second act.

However this may be, our point is clear: the genetic conception of individuality is not only not opposed to the hylomorphic conception, but from the standpoint of intelligibility it directly implicates it.

[246] Cf. John Wild, *Introduction to Realistic Philosophy* (New York: Harper, 1948), p. *506.*

Our next step is to demonstrate that the hylomorphic composition of natural units, the individuals or " substances " of nature, necessarily implies that if there are individuals which differ by reason of properties in the strictest ontological sense, properties rooted in the intelligible a priori constitution of possibly different beings as consequent on the form alone, these individuals are related by reference to these properties in a unilinear way.[247] This will require but an application of the logic of definition to the possible modes of difference.

Let us begin by restating the possible modes of difference.[248] Some things differ only in degree: the difference between the two things may be rooted in one and the same perfection possessed by both in different quantities, in which case it will be signified by a positive term with varying quantification that signifies more or less of the same. On the other hand, some things differ in kind: either the difference between the two things may be rooted in two " perfections " or determinations related by contrariety, in which case it will be signified by two positive terms, each signifying the possession of one of the two contrary determinations,-e. g., the difFerence between placentals as a class and marsupials as a class; or the difference between the two things may be rooted in one of two determinations related cumulatively (i.e., so related that whatever possesses X must also possess Y, but note *converso,* where X is the " cumulative " and Y the " accumulated " perfection, and this deficiency with respect to X may be a condition either of privation-simple indetermination-or of negation-determinate exclusion), that one or 'root' perfection being the cumulative determination or perfection, in which case it will be signified by a positive and a negative term, the former signifying the possession, the latter the rejection, of that on!'! perfection-e. g., a) whatever has wings (cumulative perfection) must have externally specialized organs (accumulated

[247] See Adler, *The Pwblem of Species,* pp. 110-111 and fn. 141, p. 111.

••• Here I am basing myself on and to a certain extent presupposing Adler's analysis in "The Hierarchy of Essences." Anyone who wishes proof that all the really possible modes of difference are being considered should consult this article.

perfection), but not everything with externally specialized organs need have wings, though it *will* necessarily have some positive alternative, paws, for example (coordinate perfections cumulative of the same determination) ; b) whatever has hoofs (cumulative perfection) must have externally specialized organs (accumulated perfection), but the ungulates or hoofed animals may differ among themselves as odd-toed-perissodactyls, or even-toed-artiodactyls (two contrary perfections cumulative of the same determination) ; c) whatever is capable of self-replication (cumulative perfection) must be a material substance (accumulated perfection), but not every material substance is capable of replication (supraordinate relation of cumulation) .

If we translate this analysis into the terms apparent, superficial, and radical difference in kind which we have used throughout our preceding phases of analysis, we get the following correspondence.

An apparent difference in kind is plainly a subordinate mode of difference in degree: when, between two things being compared, the difference in degree in a certain respect is large, and when, in addition, in that same respect, the intermediate degrees which are always possible are in fact absent or missing (i.e., not realized by actual specimens), then the large gap in the series of degrees may confer upon the two things being compared the *appearance* of a difference in kind; *really* they differ in degree.

Translating the superficial and radical' difference in kind is a bit more tricky. On the one hand, an observable or manifest difference in kind may be based on and explained by an underlying difference in degree, in which one degree is above and the other below a *critical threshold* in a continuum of degrees; such differences in kind are real, and are termed " superficial " only to indicate that what underlies and explains them is a difference in degree involving a critical threshold, so that a given degree is either above or below the threshold (e. g., icejwaterjsteam) correlated with either the presence or absence of the property in question with respect to which no intermedi-

ates are possible. On the other hand, an observable or manifest difference in kind may be based on and explained by the fact that of the two things being compared one has a factor or element in its constitution that is totally absent from the constitution of the other, in consequence of which the two things, with respect to their fundamental constitution or make-up, can also be said to differ in kind; such differences in kind, *no more 1·eal than the preceding one8,* are termed "radical " only to indicate that the observable or manifest difference in kind is itself rooted in an underlying difference in kind.

Now it is clear that, by the above definitions, two things may differ superficially in kind when their difference is rooted in contrariety *and* when their difference derives from cumulatively related perfections; all the examples given above to illustrate the contrary and cumulative modes of difference in kind could from a genetic standpoint be construed as superficial differences in kind. Nonetheless, among the examples of cumulative modes of difference, there is an important difference from the standpoint of logic which shall have to be looked at more closely, which is that, in all the examples given except in that involving replication as a root power, the differentiation of the two kinds involved three distinguishable perfecHons of which each species or kind possessed two. In the example involving reproductive capacity, the differentiation of the two kinds involved two, not three, distinct perfections of which one kind possessed both and the other only one.

Now, let us call all differences in kind which involve three determinations, or two contrary determinations, "differences according to mode Alpha"; and those which involve only two determinations or perfections cumulatively related," differences according to mode Beta." In terms of the logic of definition, [249]

[249] Adler, "The Hierarchy of Essences," p. 16: "A kind is a definable species of thing. The definition of a species or kind, whether it be accidental or essential, involves stating a genus and a difference. In order not to beg the question about the essential as opposed to the accidental, let us use these three terms-' genus,' 'difference,' and 'species '-in the following manner. Let 'genus' signify whatever is common to two kinds differentiated: i. e., let it signify one or more perfections

it is easy to see that all those kinds defined according to mode Beta will always and necessarily be related to one another unilinearly as subordinate and supraordinate, never as coordinate, contrary, or multilinear. "That differentiation according to mode Beta makes one species supraordinate to the other follows from the fact that one possesses the perfection or perfections possessed by the other and in addition possesses a perfection lacked by that other. This fact not only causes one species to be higher than the other, but also is the key to the hierarchical ordering of all species thus differentiated." [250]

We have here an antinomy.

Since Alpha and Beta exhaust the modes according to which things can differ in kind, since moreover from a genetic point of view (equivalenty: from an exclusive standpoint of material cause) things which differ according to *either* mode fit the definition of superficial difference in kind, whereas from a logical point of view only mode Alpha fits the definition of a superficial difference while mode Beta fits the definition of a radical difference, we are forced to ask ourselves whether the only differences in kind ontologically possible are not either apparent or superficial (" differences according to mode

which the things being differentiated possess in common. Let ' difference ' signify a perfection (or a set of inseparable perfections) possessed by one kind and rejected by the other. Let 'species' signify a kind as constituted by one or more perfections which it has in common with another kind, combined with the perfection, possessed or rejected, by which it is differentiated from that other. Hence whether the kind under consideration is essential or accidental, defining the species requires us to state its genus and its difference.

" So far we have used all these terms-' genus,' ' difference,' ' species,' and 'definition '-with systematic ambiguity, so that they are equally applicable to ail kinds, whether they are differentiated according to mode Alpha or mooe Beta. Now let us remove that ambiguity by seeing the altered signification of these terms as we pass from one mode to the other." (See the further discussion in fn. below.)

[250] Adler, " The Hierarchy of Essences," p. 18. The reader should beware of making any simple parallels between Adler's analysis in " The Hierarchy of Essences " of differential modes Alpha and Beta and my own analysis here; for, as the reader familiar with all three texts will have noticed, in order to correlate the analysis of the modes of difference in *The Difference of Man* with that in "The Hierarchy " for the present context, it has been necessary to define differential modes Alpha and Beta slightly differently than Adler did.

Alpha "), while the radical difference in kind represents a mere logical construct without application to the realities of the natural world.[250a]

[250]. Actually, to speak with absolute exactitude and strictness, since the "superficial difference in kind is one that can be explained by an underlying difference in degree," even though this fact "does not reduce that difference in kind to a difference in degree" *(The Difference of Man,* p. it would be possible for a geneticist or molecular biologist misconceiving the type of formal autonomy that is proper and possible within his diBcipline (see M. J. Adler, *The Conditions of Philosophy,* New York: Atheneum, 1964, pp. 38-9 and 81-9; cf. also David Bidney, *Theoretical Anthropology,* New York: Columbia, 1953, pp. 39-53, 106-113, and *115-6, inter alia)* and in view of the fact that a "critical threshold" as such is neither a genetic constituent, a gene, nor a combination of these, but something consequent on such factors, to argue that even superficial differences represent mere mental constructs and that in consequence there are *only* apparent differences in the natural world, but no real ones of any genre. Such a view would run counter not only to common experience and the known facts of speciation (see Part I, Sec. V above, esp. pp. 144-6), but it would entail the denial of the possibility of logical discourse grounded ·in the realities of nature, inasmuch as the law of the excluded middle would be reduced (insofar as it denotes something beyond the simple ontological identity of a thing with itself covered by the principle of identity and valid in a world devoid of non-apparent differences in kind) to the status of an *ens rationis cum fundamento in re;* and it would become in the end impossible to distinguish between differences introduced into our thought by being and differences introduced into being by our thought-exactly Quinton's dilemma. "The impossibility of intermediates [without reference to serial order] constitutes the discontinuity or discreteness of kinds; only things that differ in kind differ discretely or discontinuously. Another way of saying this is to say that the law of the excluded middle holds for things that differ in kind and *only* for things that differ in kind. Thus, for example, a whole number is either odd or even. There is no third possibility or *tertium quid." (The Difference of Man,* p. "When ... using the word 'continuum' . . . to signify continuous variation-" whether actual or possible, i. e.: "the mode of difference to which the law of the excluded middle does not apply-as contrasted with discrete differences, to which it does apply," one is in the order of physical rather than mathematical discourse. *(Ibid.,* p. "Just as the word 'only' is indicative of difference in kind . . . so the words 'more' and 'less' are indicative of difference in degree." *(Ibid.),* (See Aristotle, *Metaphysica,* X, 7, "When two things differ in *kind,* no intermediate is possible; the law of the excluded middle applies; and the two things can be said to differ discretely or discontinuously. Thus, for example, an animal either is able to fly or not; there is no intermediate between flying and not flying. When two things differ in *degree,* intermediates are always possible; the law of the excluded middle does not apply; and the two things can be said to differ continuously. Thus, for example, between any two species of reptile differing in length a third species, having an intermediate length, is always possible. The fact that no fossil or extant species may have this intermediate length does not remove the possi-

The answer to this question must be found in the tendency of the notion of formal cause to be reduced to an empirical arrangement, whereas beyond this it implies an intelligible principle of substantial unity. If this is well understood, it will be seen that any definition of the individual organism in terms of its genetic structure is not and cannot be an essential definition of what kind of organism it is simply, for the genetic structure is a " compound " inasmuch as it is in the Aristotelian sense at the level of *materia secunda,* i.e., *materia jam actuata* -otherwise, it would not be an empirical and directly manipulable arrangement-" and no compound as such can enter into the definition of a form." [251] Thus an organism *is* not a genotype, although every organism must *have* a genotype.

The difference between accidental form and substantial form is that whereas the former does not make a thing simply be, but only makes it be such or so much-as large or white or anything else of this kind-the substantial form gives it being simply. Hence the accidental form presupposes an already existing subject; but the substantial form presupposes only potentiality to existence, i. e., primary matter.

From this it is clear why it is impossible for one thing to have several substantial forms; because the first makes the thing an actual unity, and if others are added, inasmuch as they presuppose the subject already existing in act, they confer only secondary modifications. [252]

Three things follow from this. First of all, we may note that not only does an account of the individual organism in terms of genetic organization imply a substantial principle of

bility of there being one." *(Ibid.,* p. 22. Further exemplification with respect to the law of the excluded middle is given on p. 22-vertebrate/invertebrate, viviparous/oviparous, etc.).

Thus the very fact that irreducible differences occur at any level of biological reality-in phenotypical adaptations, for that they can be and are kno'wn to be such independently of our researches into them, is already sufficient evidence that it is untenable to contend that the world of nature consists of things which differ only in degree and in no other way beyond numerical existential diversity. See pp. 145-6 in Part I of this article.

[251] St. Thomas, *In II de anima,* lect. 1, n. 222.

[252] *Ibid.,* n. 224.

unity but to the extent it ignores that implication it inevitably slips into a mechanistic reductionism; for from an ontological perspective both the composition of a body and its empirical organization *qua empirical* (as counterdistinguished from what is proper to it as organization over against composition, namely, *to* bespeak unity of determination over against manifold determinability) are in the order of accidental material disposition, since " the matter of a living body," i.e., a living compound, "stands to the body's life as potency to its act, while this act according to which the body has life is precisely the soul." [253]

In the second place, we can now see why real differences in kind *could* appear from a genetic standpont as superficial, even if they were in fact radical. [254] For this it would be sufficient

[253] *Ibid.,* n.

[254] From this may be inferred also the reason behind the differing terminology employed in analyzing the modes of difference in "The Hierarchy of Essences., and in *The Difference of Man.* Since all the infra-human forms are material actualities *simpliciter dicta,* it is altogether impossible to demonstrate the radical difference in kind between plant and simple corporeal substance, plant and animal, except in terms of the hylomorphic conception of nature. Because this doctrine unfolds at the level of the *intelligible intuition* of the unity of the sensibly organized, there is probably no way to formulate an indirect argument for its truth susceptible of strictly empirical resolution (see *The Difference of Man,* pp. esp. p.

On the other hand, because the human form is a material actuality only *secundum quid,* it should be possible to structure an indirect argument leading to an emprical situation inexplicable on the suppositions of a metaphysical (as distinguished from a methodological) behaviorism (see *The Difference of Man,* pp. i.e., a situation which even from the genetic point view could no longer be defended as a superficially differential situation, and independent of the hylomorphic philosophical theory of nature. (E. g., this was exactly the thrust and exactly the standpoint of my article on " The Emergence of Man: An inquiry into the Operation of Natural Selection in the Making of Man," *The New Scholasticism,* XL [April, 1966], pp. 141-176; and why I could say that with man, " for perhaps the only time in the history of biological development, a specific discontinuity arose and could only have arisen between two individuals " [p. 170]; whereas from a strictly hylomorphic standpoint such a statement would have been inadmissable.)

The terminology of *The Difference of Man* was fashioned with this unique structure of human *esse* in view; whereas, to begin with the terminology of " The Hierarchy of Essences " and then precise it with respect to man's *secundum quid* materiality would have made the analytical apparatus of *The Difference of Man* impossibly cumbersome

to ignore or simply never see the intelligible implications of composition and organization in terms of determinability and determination.

> For matter certainly is that which as such is not a particular existent, but simply in potency to becoming such. Form, on the other hand, is that by reason of which a particular thing actually exists. While the composite is the particular existent itself; for that is said to be a particular existent (i.e., something you can point to) which is complete in being and kind. And among material things only the composite substance is such.[255]

From such a standpoint, empiriological in the reductive sense to the end, all that would or could appear would be varying genetic distributions yielding varying phenotypes, sometimes with novel traits, it is true, but traits always reducible to the underlying genetic organization of potentially infinite variation. This is inescapable from within an explanatory scheme which consistently subordinates intelligible implications to the sensible or empiric order, i. e., which never allows the intelligible implications of experience to work themselves out. " When one asks the empiricist what makes the thinking being different from the animal without reason, he can find nothing in the sensible order other than a different degree of organization. From the same point of view St. Thomas would have to reach the same conclusion. Since the empirical conditions are different in the two cases, the resultant phenomena differ: that is all the empiricist finds." [256] For "no composite as such can enter into the definition of a form." [257]

In the third place, we can see that things which differ according to mode Alpha are always kinds definable in terms of characteristics or traits which are rooted in the composite, whereas the things which differ according to mode Beta are always kinds definable in terms of a property which follows necessarily from the substantial form as consequent on it alone and due neither to the signate matter nor to the objective

[255] St. Thomas, *In II de anima,* lect. 1, n. 215.

[256] A.-D. Sertillanges, *L'Idee de creation et ses retentissements en philosophie* (Paris: Aubier, 1945), p. 147. See however the qualifications in fn. 254 *supra.*

[257] St. Thomas, *In II de anima,* n. 222.

circumstances of the thing's existence or operation.[258] In traditional terms, all definitions worked out on the pattern of mode Alpha may very well be real descriptive definitions which capture a distinctive life-style and syndrome of characters proper to a stable and unique population within the natural world, but from the side of the metaphysical composition of essence as an a priori established within a determinate grade of being by reason of a formal property convertible with its formal or " specific " difference, such definitions are not and could never become essential.[259] The former definitions are definitions of " accidental " unities in the sense that historical causality alone could determine the actual structure and function, for instance, of Pterodactyls; the latter definitions are of "essential" unities inasmuch as whatever the determinate structure of Pterodactyl populations, each of their constituents had to exercise an existence intrinsically determined to an irreducible substantial level or grade of being.

Thus everything which differs according to mode Beta will fit the definition of a radical difference in kind. And there will be as many such differences as there are substantial specifically different in the metaphysical sense.

We now see both why a radical difference in kind is indistinguishable from a superficial one from the standpoint of sensible verification, and how these two modes differ in reference to the hylomorphic composition of natural bodies; whereas the latter may or may not be implicated in the eduction of a new substance, the former always is. And as many true properties as there are in the ontological sense, radicated in the form alone (which never exists as such, of course), so many irreducible ontological species will there be in the traditional sense of the term. No one has ever been able to show that there are more than four such grades, and there is every reason to believe that only four definitions are possible which meet the requirements of mode Beta.[260]

[258] See *The Problem of Species,* p. 190 (cited in fn. 157 *supra).*

[259] See fn. 157 above, and *The Problem of Species,* pp. 179 ff.

[260] See Acller, " Solution of the Problem of Species" and "The Hierarchy of Essences."

From this point of view, the radical kinds alone are species, while all the other articulations of nature, " the class of the birds and the class of the fishes," are sub-species.

While in terms of an analysis of species as natural kinds distinguished among themselves according to the operation of proper causal networks, from the point of view of historical causality, the radical kinds are not species at all, but a priori levels or grades rooted in the intelligible necessities of being, which levels, moreover, can never exist as such but only as realized in genetic populations of substantial individuale.

For purposes of illustrating this idea, let us suppose a finite intelligence contemplating the universe at the period when there was no actually living thing. This intelligence would have been able to foresee with infallibility the emergence of man in this world, and also all those factors which condition absolutely the determination of matter in the line of the human composite: it would have foreseen the plant and the brute, but would have found it impossible to envision all the concrete modes according to which these natural species would be realized. These species, which are *quasi-genera* in relation to the sub-species, are fixed a-priori, because there is no intermediate point between " to be," " to live," " to know," and " to understand." . . . The inorganic, the plant and the animal are boundary-species and certain. But it is impossible for the determination proper to the sub-species which realize these natural species in a historical fashion to participate in this positive certainty. Otherwise, the modes according to which the animal or the plant would be realisable would be actually determined in matter ahead of time ... that is to say that there would not only be an idea of matter, but settled ideas.

The intelligence which we have imagined would know with certitude that matter would receive a human forih, but it would not be able to say much about the intermediate forms. The throng of sub-species possible is undefinable-between the highest forms of vegetative life and the lowest forms of animal life there is yet again an indefinable number of possibles-and consequently it belongs to the order of the unenvisionable. If one wishes to advance, one must straddle the intermediate forms, each step establishing a clear discontinuity without actual intermediates. Doubtless the structure of the ladder will be determined in a certain measure by the substances given at the outset. . . . But the number and the interval of the stages could not be given in advance. . . . The

surprises which matter reserves for us are undefined. One would have no way of discerning in the initial composite (or composites) a rigid plan of the hierarchy to be established, as if the universe were a multiplication table or matter a subject which received forms coming from without, as the Platonists imagined.

There is therefore a dimension of the unforeseeable in the order of natural determinations: All the sub-species belong at any moment in the existence of the world to the order of future contingents. The hierarchy of these species belongs to history. One understands then why the sub-species " cow " inasmuch as it is cow is philosophically indefinable. It has a determinate truth only a-posteriori, like the actual divisions of a continuum. [261]

All the essential concerns and decisive interimplications of the traditional and modern species problematics are faultlessly limned in these lines by De Koninck. Such is the true picture of the authentic influence of Darwin on philosophy. For "if the existential establishment of the hierarchy of essences is an *opus naturae,"* the irregularity of the evolutionary progression of the natural kinds such as science exhibits it is perfectly explajned. [262]

This brings us face to face with one further consideration, however, which it is impossible not to come to terms with: the passage from the lower to the higher grades of being, the root problem of evolutionary progress.

Actually, this question is not so difficult as is often supposed. In the first place, in terms of the hylomorphic composition of bodies, it is impossible to deny that it is " the degree of complexity in the scale of organization of organic structures and functions " [263] which is the true measure of ontological perfection and consequently the criterion of progress. It is a question of principle, and quite independent of the impossibility of deciding in the particular case whether a butterfly is " more complex " than a moth, an elephant than a mammoth, or an oyster than a clam:

> The number and diversity of activities complete in themselves varies in direct proportion to the perfection of the soul in living

[261] De Koninck, *art. cit.,* pp. 234-5.
••• *Ibid.,* p. 240.
••• Cf. *The Problem of Species,* p. 261.

things. The higher the soul the wider is the range of its activities; and the wider its active range the more, and the more distinctly diversified, organs or bodily instruments are required by it. So the relatively greater nobility of the rational soul calls for a greater diversity of its bodily organs, whilst the far lower soul of a segmented animal or a plant has only a narrow field of activity and therefore needs a body that is more uniform and less articulated, and in any part of which, taken separately, it can maintain its being.[264]

" In short, not every difference in degree of perfection makes a difference in species, but only such as involve grades of being." [2a5]

In the second place, from within the explanatory framework of evolutionary science, and as Darwin himself clearly recognized, adaptation to the contingent circumstances of a changing environment results inevitably in the preservation and development of natural kinds which tend in the long run to mutate in the direction of superior " accidental " (i. e., historical) embodiments of the irreducible grades of being, as a simple concomitant of the fact that adaptive versatility absolutely depends on a versatile (i.e., complex) physical organization:

As species have generally diverged in character during their long course of descent and modification, we can understand why it is that the more ancient forms, or early progenitors of each group, so often occupy a position in some degree intermediate between existing groups. *Recent forms* are generally looked upon as being, *on the whole,* higher *in the scale of organization* than ancient forms; and they *must be higher,* insofar as the later and more improved forms have conquered the older and less improved forms in the

[264] St. Thomas, *In I de aninw,,* lect. 14, n. The point is made equally clearly from an " empiriological " point of view (for the sense of this, see the discussion of reductionism in Section VII above) by Julian Huxley in *Essays of a Humanist* (Baltimore: Penguin, 1964), ch. " Higher and Lower," pp. 39-56. See also A.-D. Sertillanges, "La hierarchie des etres," in *Le Christianisme et les philosophies* ed.; Paris: Aubier, 1941), pp. See also Gredt, n. 519, p. 441 *Nota.* Moreover, I may add that the cited text from St. Thomas sufficiently indicates the manner in which Pere Teilhard's celebrated "law of complexity/ consciousness" is ontologically founded.

[265] Adler, *The Problem of Species,* p. fn. 208. Cf. A. G. Van Melsen, *Evolution and Philosophy* (Pittsburgh: Duquesne, 1965), esp. pp. 97-157.

struggle for life; they have also generally had their organs more specialized for different functions. This fact is perfectly compatible with numerous beings still retaining simple and but little improved structures, fitted for simple conditions of life; it is likewise compatible with some forms having retrograded in organization, by having become at each stage of descent better fitted for new and degraded habits of life.[266]

In the third place, it is not necessary to deny that " dogs give birth to puppies and not human infants," [267] nor to question the necessity of a proportion between an effect and its adequate cause, nor to adopt a view " according to which all animals (and plants) are but the transitory manifestations of one world-wide life-substance," [268] nor even to invoke " the intervention of causes other than the material energies at work in the starting point and in the environment," [269] in order to account rationally for the transition from the inorganic to the living to the animal. It is necessary and sufficient, in my opinion, to attend simply to one fact and one principle which in truth hold the key to most of the problems generated in philosophy by the evolution of life, whether they center on

[266] Charles Darwin, *The Origin of Species* (edition cited in fn. 13 *supra),* p. 364. See also J. Huxley, "Higher and Lower," in *Essays of a Humanist.*

[267] - The implications of evolution contradict our daily experience. When a fish comes out on dry land it dies. Evolution as commonly taught also involves a contradiction of the principle of causality. In our experience every cause is greater than its effect. Dogs give birth to puppies and not human infants. In evolution as so commonly taught every effect is greater than its cause, referring to the development of the major species. By a gradual process of perfection it culminates in the most perfect being of all, man. The world as we know it does n>Ot support this view." Carlo, *Philosophy, Science, and Knowledge,* p. 121. Compare with the view of de Finance, *Existence et liberte,* pp. 262-3 (cited in fn. 270 *infra).*

[268] A view which Joseph Donceel attributes approvingly to Teilhard de Chardin and Karl Rahner: "Causality and Evolution: A survey of some Nco-scholastic Theories," by Joseph Donceel, *The New Scholasticism,* XXXIX (July, 1965), p. 296.

[269] Donceel's own view, *ibid.,* p. 298. On p. 304 Donceel cites de Finance's position but seems not to have grasped its authentic implications. This is clear from his attempt to introduce via Pere Teilhard "a third intermediate notion, that of creative transformation " (p. 306) between the divine creative act and the actions of creatures-a very curious doctrine from one who claims to understand from within, as Fr. Teilhard did not, the theology and philosophy of St. Thomas. Cf. Sertillanges, *L'id6!;J d!;J creation !;Jt ses retentissements en philosophie.*

the relation of essence to existence or on the origin of " species." The fact is that the process by which evolution has taken place must be found in the individual generations of organisms. The principle is the involution and mutual activation of the causes: *causae ad invicem. sunt causae.*

Here it is a question of making explicit certain indications already touched on in Section VI above. There can never be any question of an effect as such exceeding the determination or " perfection " of its adequate reasons for being-a contradiction indeed; but the resason for being is never an efficient cause alone. " There is more in the cause and the effect than in the cause alone," notes de Finance.[270] To challenge the

[270] Joseph de Finance, *Existence et liberte,* p. 268. This passage (pp. 262-8) bears citation: " L'idee de causalite instrumentale est restee trop souvent liee a des schemes grossierement artificialistes (le marteau, la scie, le pinceau, etc.), qui empechent de voir en elle ce qu'elle est en effet: un essai pour repondre a cette question que pose !'experience quotidienne comment un etre peut-il donner ce qu'il n'a pas? Comment peut-il etre plus que soi? (Voir la-dessus d'excellentes pages du P. Labourdette, "Le peche originel et les origines de l'homme," *Revue Thomiste* 1950, III, pp. 496-505, ainsi que J. Maritain, *Raison et raisons,* Paris, Egloff, 1947, pp. 77-82.)

"Si l'on s'engage dans cette direction, on concevra les individus comme des instruments au service de la Cause universelle, qui ne cesse par eux d'amener a !'existence des etres en qui son idee s'exprime de plus en plus parfaitement. On peut aller plus loin et, rejoignant Lamarck par une voie imprevue, attribuer ce role instrumental au milieu lui-meme. Mais il ne faudrait pas que l'idee, forcement analogique et inadequate, de causalite instrumentale, nous donne !'impression d'une activite qui s'exercerait sur l'univers en lui restant exterieure. Non, dans la perspective ou nous nous sommes place, l'univers apparait travaille par une force interne qui le projette au dela de lui-meme. Cet au-dela n'est pas en lui a la fagon d'une perfection naturellement possedee, et cependant il est deja en lui d'une certaine maniere et cree en lui comme une inquietude, une distension metaphysique. Il est en lui d'abord comme la fin est dans le mouvement et c'est lui qui donne leur sens et leur elan a toutes les activites cosmiques. Mais le rapport du mobile a la fin n'epuise pas la signification de la presence intentionnelle. C'est l'efficience meme des agents naturels qui se trouve par elle surelevee et ordonnee a des effets qui depassent le niveau d'etre de ceux-ci.

"La chose paraitra moins etrange, si l'on observe que toute action de la creature est, par elle-meme, position d'un plus-etre ou, en d'autres termes, que la causalite de l'agent fini est essentiellement *synthitique* et *progressive.* Il ne pent, dit-on, y avoir dans l'effet plus que dans la cause. Soit, mais, a moins d'admettre que la cause s'appauvrit de ce qu'elle transmet ou que !'existence individuelle n'a aucune densite ontologique, il faut ajouter aussitot qu'il y a plus dans *la cause et l'effet* que dans *la cause seule.* Le cas est particulierement clair dans Ie domaine

evolutionary idea in terms of the relation of efficient cause to its possible effect considered, moreover, from the standpoint itself of efficiency, is to misunderstand the issue entirely, for it

de Ia vie. Le plus determine des fixistes n'a aucune peine a concevoir Ia propagation d'une espece a partir de quelques individus et nul dans !'Ecole n'a jamais vu la moindre difficulte dans !'extension graduelle de la vie sur la planete. Or, cette extension constitue bel et bien pour l'univers un progres dont il faut rendre compte. II y a, en toute causalite veritable, une antinomie qui differe moins qu'on le pense de celle qu'enveloppe !'idee d'evolution. Seulement l'experience quotidienne nons impose !'idee de Ia causalite, tandis que !'evolution ne repond a aucune donnee immediate. Mais l'une et !'autre sont progressives et ne s'expliquent en definitive que par Ia presence operante, en tout agent cree, de *l'lpsum Esse subsistens.* L'evolution ne serait un scandale que pour une conception strictement aristotelicienne du processus causal, ramene a Ia transmission d'une forme identique--l'existence individuelle de l'effet n'entrant pas en ligne de compte--; mais alors, contre !'intention d'Aristote, c'est Ia verite meme de l'efficience que l'on compromet."

This last line particularly is worth noting: "L'evolution ne serait un scandale que pour une conception strictement aristotelicienne du processus causal, ramene it Ia transmission d'une forme identique--l'existence individuelle de l'effet n'entrant pas en ligne de compte "; for this seems to have been the basis for Hegel's express denial of the possibility of an historical evolution such as Darwin argued for: " Die Natur ist als ein *System von Stufen* zu betrachten, deren eine aus der andern notwendig hervorgeht und die niichste Wahrheit derjenigen ist, aus welcher sie resultiert, aber nicht so, dass die eine aus der andern *natiixlich* erzeugt wiirde, sondern in der innern, den Grund der Natur ausmachenden Idee. Die *llietamorphose* kommt nur dem Begriffe als solchem zu, da dessen Veriinderung allein Entwicklung ist. Der Begriff aber ist in der Natur teils nur Inneres, teils existierend nur als lebendiges Individuum; auf dieses allein ist daher *existierende* Metamorphose beschriinkt.

"Es ist eine ungeschickte Vorstellung iilterer, auch neuerer Naturphilosophie gewesen, die Fortbildung und den Ubergang einer Naturfonn und Sphiire in eine hohere fiir eine iiusserlich-wirkliche Produktion anzusehen, die man jedoch, urn sie *deutlicher* zu machen, in das *Dunkel* der Vergangenheit zuriickgelegt hat. Der Natur ist gerade die Ausserlichkeit eigentiimlich, die Unterschiede auseinanderfallen und sie als gleichgiiltige Existenzen auftreten zu lassen; der dialektischc Begriff, der die *Stufen* fortle'itet, ist das Innere derselben. Solcher nebuloser, im Grunde sinnlicher Vorstellungen, wie insbesondere das sogenannte *Hervorgehen* z. B. der Pflanzen und Tiere aus dem Wasser und dann das *Hervorgehen* der entwickeltern Tierorganisationen aus den niedrigern usw. ist, muss sich die denkende Betrachtung entschlagen." (G. W. F. Hegel, *Enzyklopiidie der Wissenschaften,* neu herausgegeben von Friedheim Nioolin und Otto Pdggeler [Hamburg: Felix Meiner, 1959], p. :202, par. 249. See Stace's comments on this passage in *The Philosophy of Hegel* [New York: Dover, 1955], par. 434, pp. 313-315).

"Mais alors," nous disons encore, "contre !'intention d'Aristote, c'est la verite meme de l'efficience que l'on compromet."

is to make no allowance for the pre-existence of the " patient " and the repercussions of its own pre-existing organizational dispositions which may either reinforce or cancel out or modify in some startling way the dispositions which would have been established by the efficiency of the agent if its interaction partner had been a purely plastic material. Since the corruption of one form is the generation of another, and since all forms are corrupted only *per accidens,* it is to the final dispositions of the being corrupted that we must look if we wish to know the ontological species of the subsequent form.

This is clear from Aristotle's definition of the soul (the substantial form of a living being) through its proper subject: **"If,** then, we have to give a general formula applicable to all kinds of soul, we must describe it as the first grade of actuality of a natural organized body," [271] where the "natural organization" in question is simply the microstructural dispositions which will necessitate the eduction from matter of a form with the faculty of replicating itself-matter organized in such a way as to enclose the capacity for life. For " unity has many senses (as many as **'is'** has), but the most proper and fundamental sense of both is the relation of an actuality to that of which it is the actuality," [272] as the pupil *plus* the power of sight constitutes the eye.

The whole question turns on the problem of organization. The total range of diversity in the universe of physical beings is rooted in the peculiar disposition and composition of parts in each unity, that is, in the individuating disposition; but because there are four *irreducible* levels of material existence, this individuating disposition must also always include a specifying disposition.

Living bodies, as all natural bodies, are fashioned out of pre-existing matter, i. e., out of the potentiality in each thing to be converted, remotely or proximately, into something radically different. Thus, considered in itself, life pertains to

[271] Aristotle, *De anima,* Bk. II, ch. 1, b 4-6.
[272] *Ibid.,* b 8-9.

the potency of matter. *Per se,* the organization specific of life (realizable according to countless concrete modes) belongs to inorganic matter only after the manner of an inadequate or remote potentiality; *per accidens,* however, it may under given conditions pertain to it adequately, i.e., causally.

This is the basis for the prior possibility in principle of so-called "equivocal generation": the origin of living matter out of non-living matter by reason of a fortuitous dispositioning of the latter in a chance (or laboratory controlled) series of causes. That this is possible follows from the very nature of the soul as the first act of a body disposed through organization to sustain in being the operations of life. *It does not matter by what agencies this organization is effected:* the sole condition essential and primary for educing a soul (= for constituting a living being) is the production of an organization suited to life; the actual processes through which this organization is constituted are accidental and purely secondary considerations. A *univocal cause* is always proportioned to its effect, either in the sense of belonging to the same irreducible ontological level, or in the sense of belonging to a higher order, such that it contains the ontological species of its effect within itself eminently. An *equivocal cause,* on the other hand, need not be proportioned to its effect except *per accidens,* in the general way that any material substance is able to act on another by very reason of belonging to a common ontological genus. In this way, as the investigations of biochemistry sufficiently indicate, the structures of the living world are potentially latent throughout the whole of secondary matter; [273] for which reason again a concatenation of special circumstances could efficaciously though in a *per accidens* way disposition the specific (ontologically specific) organization of a living being which otherwise pertained to any one of the circumstanced

[273] E. g., consult N. H. Horowitz, "The Origin of Life," in *Frontiers of Basic Science,* E. Hutchings, ed. (New York: Basic Books, 1958); S. Huang, "Occurence of Life In the Universe," *American Scientist,* 47 (September, 1959), pp. 397-402, Albert Ducrocq, *The Origins of Life* (London: Elek) . Two works in this area are fundamental classics: A. I. Oparin, *The Origin of Life on Earth* (3rd ed.; New York: Macmillan, 1957); and L. J. Henderson, *The Fitness of the Environment* (Boston: Beacon, 1958). See also Gredt, fn. I p. 349, n. 408, pp. 342-3.

entities only potentially and indeed inefficaciously. In such a case, there would be no violation of the principle of causality and no need for a "special" divine concursus (still less intervention) , any more than there are instances of either of these in our everyday experience.[274] The soul is but the first actuality of a disposed physico-chemical structure.

From an experimental point of view, it is only a superficial difference in kind. " Since in the two cases the empirical conditions are different, the phenomena themselves differ: that is all that the scientist finds."[275]

From an explanatory and ontological point of view, it is a radical difference in kind, an irreducible ontological level or zone which will fill itself up with novelties until the opening of a still further zone is required by the very exuberance of the vegetative forms.

The fact that the relationship of the mechanistic to the autonomous process components is dependent upon, and therefore largely patterned after, the physical relationship of macrovariables and microstates has been the origin of many of the difficulties and misconceptions which have arisen in biological theorizing. The tendency of so many investigators who are concerned with specific macroscopic mechanisms to make short shrift of any organismic concepts, and to generalize mechanistic views too readily beyond their original limits, can no doubt be traced to this source.[276]

" We are equally far removed from a pat mechanism as from an intrinsically dualistic vitalism";[277] and yet, like De Koninck's imaginary intelligence contemplating the earliest

[274] De Finance, *lac. cit.* (see fn. !'l70 *supm).*

[275] Sertillanges, *L'idee de creation,* p. 147.

[276] Walter M. Elsasser, *Atom and Organism, A New Approach to Theoretical Biology* (Princeton: The Un'iversity Press, 1966), p. 106. On the preceding page, Elsasser exactly observed that " to consider the organism apart from its mechanistic components and functions is patently absurd. This is such a fundamental fact that one must be quite sure not to mistake it for an implicit guarantee that mechanistic biology will be successful by itself." C£. Jacques Maritain, "Ontology and Empiriology in the Study of the Living Organism," in *The Degrees of Knowledge,* pp. 19!'l-199. According to Maritain, the "ontological and philosophical knowledge of the living thing " has as " part of its task to root out the double illusion of mechanism and vitalism." (p. 198)

[277] *Ibid.,* p. 60.

stages of the process, we recognize the inevitability of life once constituted to rise-barring catastrophe--by the steps of historical novelty and by multifarious and weaving paths leading through a maze of natural forms through a taxonomic hierarchy to the rational animal; and we recognize within the 1,600,000 plus types of animals (including here the 800,000 plus types of insects which in an ontological no less than in a strictly biological optic are modes of animality: *sentire in sentibus est esse)* and 200,000 plus types of plants called by the taxonomist " species " another order of species and another hierarchy, the perfect hierarchy of essential forms.

We see, therefore, how the problem of the " higher " from the " lower " poses itself within the order of ontological grades. It is a mistake and a complete misunderstanding to state the issue in terms of dogs generating humans or butterflies generating mice. The authentic philosophical question is whether there is some form of physico-chemical organization which could under some circumstances be so disposed by the cosmic agents environing it as to require the eduction of a living form; and beyond that a question of whether there is any form of vegetative life which could under some circumstances give rise to some form capable in however imperfect and rudimentary a way of sensitive life. And from the standpoint of the definition of the soul through its proper subject and the involution of the causes, it is impossible to say that an affirmative answer to this question involves a contradiction. By reason of the fact that the ontological species can only be realized in individuals historically and contingently constituted, it is impossible to assign to these species absolute limits. This is the essential error in the distinction between natural and systematic species as it is commonly drawn by philosophers. "What De Koninck calls the absolute species are ordered hierarchically, but within each sphere of the hierarchy-which, because of the intrinsic indetermination and contingency of these forms is a zone of probability-there is a continuum of sub-species, varieties, or races which are only ' statistical entities.' " [278]

[278] Adler, *The Problem of Species,* p. 82.

Finally, we see just what are the philosophical dimensions of the origin of species. The principle of hierarchy, which governed traditional thought in this matter without all its main implications being recognized at once, stated that, since nature is of a hylomorphic constitution, there are a number of essentially distinct kinds in the world of physical things, and these specific natures are ordered in a perfect hierarchy by reason of the nature of essential constitution. This principle of hierarchy excludes a single all-embracing continuum, but it allows for a plurality of continua that permit a lower kind to approach the next higher by a scale of degrees. Nonetheless, the recognition that we not only know quiddities other than man but know them quidditatively, all that there are-this became possible historically only thanks to the massive labors of evolutionary research which forced the ambiguities and uncertainties of traditional discussions to the fore. Speaking from a traditional point of view and in strictly traditional terms, it became possible to say: " Every real [in the sense of essential] definition we possess has a natural species for its object; and for every natural species that there is we possess a real [essential] definition. Only singulars or accidental units escape our dianoetic intellection. These are truly infra-intelligible for the human mind, but no specific essence is." [279] Once the symbiosis of epistemology and ontology in the statement of the traditional problematic was recognized, it became possible to free the ontological analysis in its own line; and this, coupled with fidelity to the principle of parsimony, made it necessary to acknowledge that the question as to what are the several real essential definitions we possess is answered by naming the universal concepts which we can define adequately, immediately below which in the order of concepts occur those which we cannot so define; and that since our knowledge of such things as gold and mercury, lion and dog, oyster and elephant, by all accounts, goes no further than nominal and descriptive definitions within the order of

••• *Ibid.,* p. 41.

perinoetic intellection, since in addition it is impossible to arrange our real descriptive definitions of these things according to the principle of perfect hierarchy, it is impossible to respect the principle of parsimony and still contend that these things either are real species or that our knowledge of them justifies regarding them as approximations to and substitutes for the putative multiplicity of infra-human groupings of infima specific constitutions. In fact, there is no evidence for such multiplicity.

Contingency and dynamism are certainly central in the Aristotelian philosophy of nature. It is fundamentally a philosophy of change. Nevertheless, it must be admitted that Aristotle is primarily concerned with the dynamics of change in the individual subject, and not with the dynamism of nature itself, as having a career in which variegation occurs in time. To this extent, the post-Darwinian criticism is justified. Partly the failure is due to cultural circumstances, which made it difficult, if not impossible, to distinguish sharply enough between the two meanings of " species "; even if Aristotle and St. Thomas had explicitly drawn the line between Species and Race [i. e., sub-species in the ontological sense or species in the biological sense], they could not have fully appreciated its implications for the dynamism of nature, because they were ignorant of facts which have been discovered by later research. A real addition to Aristotelian truth is, therefore, possible, an addition which develops hylomorphism in the direction of its own central principles. The result is a richer and sounder philosophy of change, which embraces not only the careers of mutable individuals, but the temporal course of nature itself in all its infra-Specific variability. As there is growth and change in the individual between generation and corruption, so between creation and the end of time, there is the maturation of the world itself. Created nature has grown and developed, has flourished and decayed, in the course of generations; and the basic principles of this history, with its partially unpredictable future, are two: the potentiality of matter and the contingency of form.[280]

In the light of these clarifications and rectifications, and speaking within the matrix of essential principles and their implications rather than within the perspective of textual and

••• *Ibid.,* p. 278.

historical analysis alone, we must say that "for Aristotle, the fundamental *reality* is the hierarchy and discontinuity of species, though he also acknowledges the *appearance* of continuity in the ascending scale of degrees of vitality by which we pass from lower to higher forms of life; and, in addition, as an empirical biologist, he candidly confesses the difficulty of determining whether a particular specimen is to be classified as a plant or as an animal." [281]

To summarize. If by species you mean what is fixed in such a way as to be open to no differentiation beyond individual traits, then there are no species. If by species you intend existentially differentiated natural populations, then there are as many species as the conditions of genetic transmission, environmental stability, and historical interaction give rise to-well over a million at current count. Finally, if by species you understand a type or grade of being irreducible in a hierachy by reason of a formal difference, a type so related within the hierarchy as to be unilinearly situated as higher or lower than the ones immediately below or above by the addition or substraction of a unit difference peculiar to that one step of gradation in the natural hierarchy-an irreducible level of intelligibility which admits of no intermediate stage-then there are but four species: corporeal substance, living corporeal substance, sensitive corporeal substance, and rational sensitive corporeal substance; for only these four notions taken as types of being can be so defined inductively that their respective differences differentiate every inorganic composite, the highest (most active) as well as the lowest, from every plant, the lowest as well as the highest; and so on for plants and animals, animals and men.

But according to which of the two legitimate senses of species you have in mind, you must conceive of the hierarchy of nature differently, for it *is* differently on the two accountings: in the hierarchy of historically constituted populations differing really and substantially among themselves according to typical and (relatively) constant genotypic frequencies and phenotypic

[281] Adler, *The Difference of Man and the Difference It Makl U!,* p. 302.

syndromes, the least animal is not differentiated from the highest plant by the addition and substraction of a unit difference peculiar to that one step of speciation in the hierarchy-indeed the step as such is not there, and it is difficult or impossible to assign a sense to the terms here. " The terms ' higher ' and ' lower ' do not mean the same thing for the scientist and the philosopher. . . . They cannot be applied to the details of specific classification .... Consequently, he [the scientist] does not address himself to the question: how in evolutionary science, could the higher forms come from the lower forms? " [282]

On the other hand, even from the philosopher's point of view, this question, *if properly posed,* "though it offers some difficulties, . . . does not occasion a real stumbling block." [283] In the hierarchy of irreducible grades or spheres of being, each of the levels is not only different in the way it surpasses the activities of corporeal nature but also according to the unique and contingent way in which the historical populations sub-realized as statistical entities within these probability zones or levels (dimensions, even) exceed their proximate inferiors under one aspect and are exceeded by them under another; yet the hierarchical ordering of the ontological zones *a.s such interrupts* the ordering of the interaction-structured population species, for no population species *as such* is ever differentiated, so far as is known, by the addition and subtraction of a unit difference.

In short, it was at its time premature and is in our time hopelessly obsolete to subscribe to John Dewey's contention that, with respect to the traditional concerns of philosophy turned toward nature, "the greatest dissolvent in contemporary thought of old questions, the greatest precipitant of new methods, new intentions, new problems, is the one effected by the scientific revolution that found its climax in the ' Origin of

[282] Nogar, *The Wisdom of Evolution,* pp. 8!20-!'ll.

[283] George P. Klubertanz, "Causality and Evolution," *The Modern Schoolman,* XIX (November 1941), p. l!'l. See further Nogar, "Higher from Lower" in *The Wisdom of Evolution,* pp. 8!'l0-8!'l4.

Species.' " [284] The truth of the matter has been stated much less extravagantly and much more accurately by Raymond Nagar. Distinguishing sharply between natural species as essences and natural species such as are intuitively recognized in the sensible world, Nagar observes that "the divisions between substances and accidents, composed and simple bodies, the living and the non-living, the sensible and the non-sensible, the rational and the irrational, do not carry the analysis very far into the matter of natural species. They do not tell you the difference between the paramecium, the mollusk, the toad, the flamingo, the camel and the cat." [285] " Contemporary science does not use these criteria of higher or lower for the simple reason that they cannot be applied to the details of specific classification. Which is a ' higher ' form, the beetle, the grasshopper, or the honeybee? It is not that the metaphysical grades of perfection are not valid philosophical categories of the general divisions of being; the scientist just has not found them useful in his methodology." [286]

IX. CONCLUSION

What are we to conclude from the foregoing discussion? We began this investigation by posing for ourselves the question of whether the recent discoveries in science, especially the refinements on Darwin's theory of evolution, did not demand, as John Dewey and many other contemporary thinkers contended, [287] a radical change in the conception of the nature of philosophical thinking?

For many post-Darwinian thinkers, only a philosophy imperfectly aware of its nature and function would claim to be more than an intellectual expression of the aspirations and ideals of a particular culture. Philosophy was born and reared in the emotional and social life of mankind evolving, and that

[284] John Dewey, *art. cit.,* p. 19.
[285] *The Wisdom of Evolution,* pp.
[280] *Ibid.,* pp.
[287] See Philip P. Wiener's *Evolution and the Founders of Pragmation* (New York: Harper, 1949).

is precisely where it must remain. Thus " metaphysics " is the name of philosophy so close to the Greeks in (cultural) aspiration and (cultural) ideal that it has not gotten around to really meeting Darwin-or to realizing that any attempt to discern the fundamental structural features which the intelligibility afforded by the world postulates as its necessary condition ("its condition *a priori,"* as some would have it) is futile and unrewarding, to say nothing of culturally obsolete.

Now it is certainly true that ancient and medieval philosophy in its most formal reflections concerned itself with discerning evidence for precisely this last sort of inquiry. And it is equally true that the question as to whether or not there is a metaphysical dimension to man's awareness of the world is the same as the question as to whether or not this task is proper and possible. But, in the perspectives of these classic assessments, what was the focus, the specifying concern, as it were, of the general metaphysical problematic? In the Aristotelian-Thomistic tradition the answer to this is forthright:

> The question which was raised of old and is raised now and always, and is ever the subject of doubt, viz. what being is, is just the question, what is substance? For it is this that some assert to be one, others more than one, and that some assert to be limited in number, others unlimited. And so we also must consider chiefly and primarily and almost exclusively what that is which *is* in *this* sense. [288]

Dewey is not the first nor will he be the last to proclaim the futility of such a consideration, and to do so in the name of "evolutionary science"; and yet, in the light of the question as posed by Aristotle, it is incumbent on those who would relativize philosophy in terms of the cultural state of scientific progress and who would accordingly see in philosophy no more than an effort to draw out the ultimate implications of scientific theories in terms of "world-view," to *demonstrate* and not merely *proclaim* that the data of evolutionary science render

[288] Aristotle, *Metaphysica,* VII, ch. 1, St. Thomas, *In VII Met.,* lect. 1, esp. nn. and This, of course, is not to say that the formal subject of Metaphysics is *ens per se* or *substantia* rather than *ens commune:* see reference in fn. below, and the discussion in fn. 188 *supra.*

all question of being in terms of substance and all substantialist interpretation of nature radically inept. Only then would their position be a reasonable and not authoritarian or dogmatic one; for it can hardly be claimed that evolution renders metaphysics in the traditional sense " impossible " and outdated by time if an empirically sound assessment of the materials on which evolutionary thought is primarily based can be shown to be in accord with the basic insights of an act/potency analysis of substance. There is an alternative to the assessments current among many thinkers, no less fundamental, but less extravagant.

> We have only begun to see the implications of hylomorphism ... in the light of modern scientific research. We must estimate our intellectual responsibilities in terms of our concrete historic position in a developing culture. Certainly, the work of philosophy is not yet finished; on the contrary, there is evidence that we may be entering on a fresh historic moment when, after the frustrations and confusions of the first few centuries of modern times, we may be able to reap the fruits which belong properly to a culture in which science finds its place alongside philosophy and theology in the fulfillment of human enlightenment. A fruitful *rapprochement* between natural philosophy and the natural sciences is just becoming possible, after years of misunderstanding and destructive feud, and such promise bears directly on the remaining difficulties in the problem of species .... These very difficulties lie directly in the path of an advance in philosophical thought,-an advance which promises to be the characteristic achievement of our epoch in the centuries to come.
>
> We need not wait, however, for the burgeonings of time. There is immediate work to be done. . . . In all of these matters it may be too early to accomplish more than a partial clarification and a qualified resolution of the problems, but the more definitely we understand these problems the better we have performed the work that seems allotted to our day. We are living at a time when the main philosophical task is to clear away the accumulated underbrush which obscures the field of vision. . . . The problems are genuine, there is work to be done in philosophy; and at least, one can hope that the brilliant past of the traditional doctrine contains the secret which, if wisely read, will lead to an equally brilliant future. [289]

[289] Adler, *The Problem of Species,* pp. *passim.*

Is an understanding of the world at all possible which is not in every way bound to the cultural state of scientific progress, or, more generally, a pure function (more or less perfectly aware of itself as such) of the level of historic consciousness attained by a given cultural epoch? That is the larger question. This essay has not attempted to deal with it directly/ [90] except to make it clear that the problem of specific structures framed by modern biology is not a problem too dark to be illumined fundamentally by the essential principles of the metaphysics and natural philosophy of the scholastic tradition; so that, consequently, *whether or not* one considers it in the end impossible to transcend " even in thought " [291] space-time in general and the temporality and historicity of our socio-cultural existence in particular, *at least* there is nothing in the materials of evolutionary science which at the present time gives the lie to this critical contention of Jacques Maritain: " The whole structure of the experimental science of the ancients has doubtless crumbled and its collapse may well appear to anxious minds to spell the ruin of everything the ancients had thought. But in reality, their metaphysics and their philosophy of nature, in their essential principles at least (as they can be gathered from the Thomistic synthesis), have no more been affected thereby " [292] than the intelligibility of a

[290] I have however dealt with this "larger question" directly, or 'in its own terms,' in another essay, "Finitude, Negativity, and Transcendence: The Problematic of Metaphysical Knowledge," *Philosophy Today,* XI (Fall 1967), pp. 184-206; and it may be noted that this present essay is but the amplification and (to that extent) demonstration of two points mentioned in passing in this other essay, on pp. 191-2 ad fn. 30 and in fn. 32 p. 203, respectively.

[291] The view, of course, of Teilhard de Chardin, repeated throughout his works but here cited specifically from *The Future of Man,* trans. Norman Denny (New York: Harper, 1964), p. 214; a genre of view developed with marvelous incoherence and indifference to any requirements of strict logic-to cite but one prominent example-in Leslie Dewart's *The Future of Belief* (New York: Herder, 1966). (Other like examples from the " Death of God " movement are cited by Mortimer Adler in his recent study of *The Difference of Man and the Difference It Makes,* fn. 2, p. 363; cf. also pp. 284 and 292.)

[292] *The Degrees of Knowledge,* p. 60; cf. also fn. 1, p. 224. At the same time, we ought to note that, at one place at least in his writings, Maritain gives explicit indication as to how he thinks this cited contention ought to be verified in

manuscript is affected by being written first in pencil and then in ink.

Far from destroying the very possibility of metaphysics, it is possible-as the foregoing analyses have indicated-to illustrate and justify this contention in the very terms of the present state of research in the particular sphere of evolutionary science. It is even possible-if Sertillanges is to be trusted -to go as far as Pere Teilhard de Chardin, and consider that " Aristotelian hylomorphism represents the projection, upon a world without duration, of modern evolutionism. Rethought within a universe in which duration adds a further dimension, the theory of matter and form becomes almost indistinguishable from our contemporary speculations on the development of matter." [293]

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of evolutionary biology: see the section on " Substantial Forms and Evolution," pp. 35-8 of the essay " Philosophical Co-operation and Intellectual Justice," in *The Range of Reason* (New York Scribner's, 1951!), pp. 80-50. We ought to note this, because, so far as I am able to judge, although this present essay has come to share Maritain's conclusion, it has done so along lines of analysis largely at variance with and often opposed to those lines Monsieur Maritain himself would have pursued in seeking to illustrate the conclusion in question in the particular area of biological evolution.

[293] Teilhard de Chardin, *Oeuvres,* Vol. III, p. 181. Cited by A.-D. Sertillanges in *L'Vnivers et l'ilme* (Paris: Ouvrieres, 1965), p. 38.

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GEOMETRY AND CONVENTION: A CRITICAL DISCUSSION

A COLLECTION of essays/ together with the essays of George Schlesinger and the essay of Hilary Putman, replies to which are contained in this collection, provide contemporary philosophers of nature with a twentieth-century counterpart of the famous Leibniz-Clarke correspondence. Griinbaum levels an all-out attack on that form of spatial and temporal absolutism which holds that distances and durations are intrinsic features of space and time. He upholds a form of relativism according to which space and time have distances and durations only relative to physical devices such as rods and clocks and according to which a significant conventional element is involved in specifying how such devices determine distances and durations. Schlesinger claims that hypothetical empirical facts-the lengthening of the day as measured by a pendulum, the increase of the velocity of light as measured by rods and pendulum clocks-could force us to accept the view that everything has doubled in size overnight. But how can one be forced to accept nocturnal doubling if one is free to account for the hypothetical facts by supposing that the laws of nature have changed their dependence on lengths and hence that things have not doubled in size at all? By rejecting this alternative Schlesinger is made by Griinbaum to appear as a spatial absolutist who holds that space has an intrinsic metric and that this metric can change. Putnam's long criticism of the first essay in Griinbaum's collection is an attempt to show that Griinbaum has exaggerated the role of convention in regard to spatial and temporal measures. One should consider geometrical and chronological matters in the context of an

[1] Adolf Griinbaum, *Geometry and Ch1·onometry in Philosophical Perspective,* University of Minnesota Press, Minneapolis, 1968. Pp. 386. $3.45.

entire physical theory, and then, according to Putnam, it will be apparent there is little room left for convention. From this point of view, one can say that intervals in space and time have, in an objective way, magnitudes. In his 175 page reply to Putnam, Griinbaum denies he has been unaware of important theoretical and empirical constraints in the choice of a metric. But, granting the constraints, there is still an important element of convention since, he points out, space and time as mere sets of points and instants lack metrical properties. Such, then, in barest outline are the issues in this lengthy debate over the status of spatial and temporal magnitudes.

It is with considerable misgivings that I add to this already voluminous discussion. Griinbaum's essay in the third volume of *Minnesota Studies in the Philosophy of Science*- the substance of which appears again as Chapters 1-4 of his *Philosophical Problems of Space and Time* and is Chapter 1 of the present collection-sparked the discussion. This essay developed Reichenbach's emphasis, particularly in *The Philosophy of Space and Time*, on definitional or conventional elements in geometry and chronometry. Griinbaum finds the justification for the conventionalism Reichenbach advocates in the idea of Riemann that continuous manifolds have no intrinsic metric. In Griinbaum joins together replies to two of Schlesinger's papers, the first of Schlesinger's papers appearing in *Philosophical Studies (15,* 1964) and the second in *The Australasian Journal of Philosophy* 1967). Griinbaum's replies originally appeared along with these papers. The third and final chapter, published in the fifth volume of *Boston Studies in Philosophy of Science,* is the reply to Putnam's critique in the second volume of *The Delaware Seminar.* The thoroughness of Griinbaum's exposition and of his replies is accompanied by an undesirable amount of repetitiveness. And the polemical bombast, especially of the reply to Putnam, has interferred with the possibility of a clear statement of the fundamental issue between the two. The elaborate attempts to show how " Putnam flies in the face of my writings, is unmindful of an important caveat of mme,

and saddles me with" so-and-so's error could, without loss, have been saved for private correspondence with Putnam. Despite such attempts, the reply contains many valuable elaborations of points Griinbaurn made in the 1962 essay. The points made throughout the collection are driven horne with great intellectual power. As one would expect in a work of Griinbaurn's, the arguments turn on considerations deep within the foundations of science rather than on surface level appeals to the absurdity of opposed positions as judged by linguistic or conceptual familiarity. This seriousness of approach together with the power of its implementation make this collection an important addition to the relativist tradition.

I shall focus on the relationship between a metric's being extrinsic and its being conventional. These two factors are closely related in Griinbaurn's thinking. He argues that one can infer the conventionality of the metric from its being extrinsic. His argument is, I think, a failure. The way in which I shall attempt to show this shall be in the spirit of Putnam's basic objection to Griinbaurn.

Suppose a space were made up of points with immediate neighbors. Such a space would be different from the customary continuous space assumed by physics in which there are always points between points. The space with immediate neighbors is, by contrast, called a discrete space. In a discrete space we can define distance in terms of intrinsic features of that space. So the distance between *A* and *B* might be the least number of intervals between points between *A* and *B.* Whether or not there are alternatives to this metric, it is based on an intrinsic feature of the manifold-the cardinality of intervals-rather than on something extrinsic to the manifold such as a rigid rod.[2]

On the other hand, in a continuous space any two distinct

[2] It is to be observed that, even when the metric can be defined by intrinsic features, those features do not determine a unique metric (up to multiplication by a constant). One is not forced by the fact that *A* and *B* are neighboring points and C and *D* are neighboring points to say that the distance from *A* to *B* is the same as that from C to *D.* Suppose we decide that any point in a manifold has eight neighbors. We might adopt the following metric. There is a point *A* such

points have the same number of points between them. The cardinality of the points is the power of the continuum. Thus it is not open to us to define the distance between two points in a continuous space in terms of the number of intervening intervals between points. Nor is any other intrinsic feature of the space, considered merely as a continuous manifold with the property of smoothness, such as to provide a basis for defining a metric. So Griinbaum says that, as continuous manifolds, space and also time are intrinsically metrically amorphous. (p. 13)

How then does conventionality come in? No facts about the continuous manifold can alone be used to define whether or not the distance between *A* and *B* is the same as or different from the distance between *C* and *D*. Suppose then we reply on a rod taken as a unit and assumed to vary in some fixed way as it is transported from place to place. Apart from physical perturbations, it might be assumed the variation under transport vanishes and thus that the rod is self-congruent on transport. The choice of unit is a trivial kind of conventionality and it is not this that Griinbaum set out to emphasize. What he insists on is rather that the self-congruence of the unit rod is a matter of convention rather than a matter of fact. If instead of being self-congruent the rod varies its length in a specified way under transport, it would be this variation that is conventional.

that its neighbors are one unit away from it, their neighbors still further out from *A* are two units away from them and hence three units from *A*. As we proceed still further out we alternate between one unit and two unit intervals. Now, suppose space lacks such a " radial " topology and has instead a " boxlike " one. A given point might have only four neighbors. We might represent this space in such a way that any point, *A*, appears to be nested within eight points. The eight points would define a " square," with the four points which are neighbors to the internal point *A*, being on the sides and the remaining four points being at the corners of the square. The distance from *A* to a corner point, *B*, might be defined as the least sum of the number of intervals between neighbors and would thus be two (cf. Griinbaum, *Philosophical Problems*, p. 886). Alternatively, corner points of the immediately surrounding rectangle might be deemed to have the Pythagorean property of being $\sqrt{2}$ units from *A*. So it does not follow that if the metric is defined by intrinsic features it has no alternatives. Alternativeness does not have as a necessary condition the extrinsic nature of a metric. I owe the point that there are alternative intrinsic metrics to Clark Glymour.

"Vhat argument does Griinbaum use to show that conventionality must be involved in the matter of self-congruence? His argument is summarized in the following passage:

> The failure of the intervals of physical space to possess an intrinsic metric-a failure which compels recourse to an extrinsic transported metric standard to begin with-has the consequence that the continuous structure of physical space *cannot* certify the self-congruence (rigidity) of any extrinsic standard *under transport* ... an extrinsic metric standard is self-congruent under transport *as a matter of convention* and not as a matter of spatial fact. (p. 149; repeated on p. 217)

Before deciding whether this argument is successful, I wish to introduce three general considerations.

(1) Suppose a1, ... , *an* is an n-tuple satisfying then-place predicate *F,* not because of features of a1, ... , *an* alone but only because of those features together with some state of affairs *P.* Let us put this by saying that a1, ... , *an* have *F* in respect to *P. F* will not then be said to be an intrinsic property of the given n-tuple, but will be said to be a property of it in respect to *P.* Probability is not an intrinsic property of hypotheses but a property of them in respect to evidence. Time-like separation is not an intrinsic property of two space-time points but a property of them in respect to the causal connectibility of events located at those points. (c£. p. 301)

The respect *P* in which a1, ... , *an* has *F* may be a matter of fact or it may be a matter of convention. It does not then follow from *F* not being intrinsic to a1, ... , *an* that this n-tuple having *F* is a matter of convention. Only when *P* is a matter of convention is the n-tuple having *F* a matter of convention. An hypothesis does not have a probability just as a matter of convention even though it has its probability relative to some body of evidence. Grant that the interval between points *A* and *B* has a length in respect to a rod's being self-congruent on transport. It follows that the length is conventional only if the rod's self-congruence is conventional.

(3) There are three cases to be considered in regard to the testability of the respect *P* in which a1, ... , *an* has *F.* (i) *P*

may be testable in a context which does not include facts concerning $a_1, \ldots, a_n$. Call this "total outside" testability. An evidence statement not implying the hypothesis it is used to support is testable without assuming the hypothesis it is used to support is true or that it is false. In this case the hypothesis has a probability in respect to something with total outside testability. (ii) *P* may have only "partial outside" testability. Here *P* cannot be tested without reference to facts about $a_1, \ldots, a_n$ but outside facts are also involved in the testing context. (iii) *P* may have "total inside" testability in that no facts beyond those about the n-tuple need be involved in the context of testing for the truth of *P*. But if this were the case then the property *F* of then-tuple could be determined just by facts of then-tuple and no need to introduce a respect would arise. Now if the self-congruence of rods is untestable in all these ways, one might be prepared to say it is a matter of convention. In each of the three cases mentioned a distinction between direct and indirect testability is to be allowed for. Thus, from the fact that self-congruence is not testable by direct observation in any of these ways, it does not follow that it is not testable in any of these ways. It may be testable in one of these ways in the indirect manner of a high level hypothesis.

I want now to show that Griinbaum rests his case for conventionality on the premiss that self-congruence under transport lacks total inside testability. Only if lack of total inside testability implied failure of outside testability would his case for conventionality be a strong one.

Suppose the case for partial outside testability were put as follows. We assume a continuous manifold, we specify a unit rod and its self-congruence under transport, we adopt a certain metrical geometry, and we propose a number of physical hypotheses. We then proceed to check the empirical consequences of this theory. If, upon checking, changes seem called for, they could conceivably be made in any one of several places. In particular, we might change the assumption about self-congruence and thus say it was tested. It is then no more conventional than other parts of the theory. And should we ever be

warranted in saying any part of the theory is true as a matter of physical fact, we would under certain circumstances also be warranted in saying the same about the self-congruence assumption.

Against this case what does Griinbaum offer? There seem to be two strands of argument. The one deals with theoretical alternativeness, the other with empirically motivated changes of self-congruence assumptions. According to the first, we do not test a self-congruence assumption, for, as allowed for by metrical amorphousness, there is always an empirically equivalent theory embodying an incompatible self-congruence assumption. For example, a clock fixed on a rotating disk and one not on it furnish incompatible standards of self-congruence, in view of the non-linearity of the transformation relating the two. (p. There are reasons for adopting one standard rather than the other, but these reasons have to do with convenience of description. The rejected standard is not rejected because it is falsified by observations.

To argue in this way from alternativeness proves too much. Alternativeness of self-congruence is not the only kind. It is in principle possible to have empirically equivalent theories that differ as regards matters other than self-congruence. Are we then to argue that theories are conventional in every respect in which empirically equivalent theories can differ from them? Even in the case of two theories with incompatible congruences it will be impossible to say they are testable in respect to the ways they differ to compensate for their different congruences. Furthermore, phenomenal color properties would be conventional, since Goodman's grue and bleen would be alternative to the plain man's green and blue. Even intrinsic metrics would be conventional since empirically equivalent physical theories could be constructed on the Pythagorean and the non-Pythagorean discrete spaces of footnote

How does Griinbaum keep the argument from proving too much? Distances and durations are not intrinsic to manifolds of points and instants. So self-congruence does not admit of inside testability. **But** pressures (p. and phenomenal colors (p. are intrinsic to their respective domains. Thus

for them and other important properties there is inside testability. For them there is a decision among alternative possibilities by this inside testability. Conventionalism is thereby avoided for them.

Grant that other features are intrinsic to the objects they qualify. It simply does not follow that in testing for such features the only things to be considered are the objects they qualify. Outside testability is not excluded for instrinsic features. Even if pressure were intrinsic to gases, we still consider objects in or around a gas in determining its pressure. There is no assurance of access by inside testability to intrinsic features. But only with such access could alternative possibilities be conclusively eliminated. Without it, the needed distinction between self-congruence and other features disappears.

To avoid a sweeping conventionalism, we must recognize that having incompatible congruences in empirically equivalent theories is not a bar to the testability of a self-congruence assumption. The testability of one of the congruences becomes possible after the selection of a theory embodying it from alternative theories with incompatible congruences by general principles Griinbaum lumps under the heading of principles of descriptive simplicity. Without such selectivity it is hard to imagine there could be any confirmatory testing, even where alternative congruences are not involved.

The second strand of argument concerns cases where a standard of self-congruence is actually abandoned. Let the standard be a rod. Suddenly it gives different results from rods previously concordant with it. Have we tested the rod's self-congruence with negative outcome, or if we abandon it as standard, have we given up, as inconvenient, a conventional self-congruence? In view of the intrinsic metrical amorphousness of space, one is free to retain the old standard or to reject it despite the discordant results. (p. It would then seem there is no test of the standard, since one is not logically compelled to abandon it.

This is inconclusive for the following reasons. First, intrinsic metrical amorphousness implies freedom to retain or to reject

the standard as far as the manifold of points is concerned. Thus there is indeed no inside testability. But from this freedom it does not follow that there is a similar freedom as far as physical reality is concerned. And hence it does not follow that there is no outside testability. The case for conventionalism is again made to rest on lack of inside testability. This time, however, there is no indication how this might imply lack of outside testability. Second, we are here asked to accept the notion that, for a claim to be about a potential matter of fact, there must be potential observations logically compelling its rejection. This notion flies in the face of the fact that many, if not most, *prima facie* nonconventional claims are tested not alone but together with others, any one of which might be given up before a discordant experience.

To sum up. I have agreed with Griinbaum that spatia] and temporal continuous manifolds are metrically amorphous. They lack an intrinsic metric. I have tried to show, however, that this argument from metrical amorphousness to conventionality is a failure. I have held that the thesis of metrical conventionality is false if self-congruence of a rod under transport or of a periodic process under repetition is an empirically testable matter. Due to metrical amorphousness, self-congruence is not testable in respect to facts about the bare manifold of points or instants. Thus it lacks what I called inside testability. But the manifold is only the skeleton of the physical world. Is self-congruence testable in respect to the *metrical physical* world? Does it have outside testability? I examined two arguments for showing that it lacks outside testability. Both were attempts to derive failure of outside testability from failure of inside testability. Both were seen to be wanting. In fact, it would seem that a good case can be made for the non-conventionality of self-congruence, if a good case can be made for the non-conventionality of other features signified by physical theories. [3]

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[8] I am grateful to Professor Griinbaum for comments leading to significant revisions in this study.

THE LOGIC OF CREATION: A NOTE

RECENT DISCUSSIONS of the Christian conception of creation have made it clear that the relation between the claims of science and the claims of religion has been widely confused. It would be extravagant, indeed, to presume that in the course of this brief analysis the myriad difficulties surrounding the Christian view of creation will adequately be resolved. However, it is the purpose of the following examination to take one step toward clarifying what has seemed irremediably confused.

Presumably, the creation of the world has been explained in such radically different ways by science and the Judea-Christian tradition that many have concluded that the explanations are contradictory and thus one explanation must be admitted while the other rejected. Without describing the intricacies of either the Christian or the scientific view of creation, I think it can be demonstrated that the two divergent conceptions are not necessarily contradictory. Therefore, the appropriation of one conceptual scheme does not necessarily affirm the exclusion of the other. Moreover, I suspect that it is feasible for one to hold both the Christian conception and the scientific description of creation without logical contradiction.

Suppose that one could very roughly unpack the creation claims of science and Christianity into the following over simplified linguistic forms: A) The world was "created" *because of* an explosion (the Big Bang Theory). B) The world was "created" *because of* God (that is to say, God created the world). Surely, the grammatical structure of the two linguistic forms inclines one to accommodate the rather attractive, most simple form of contradiction as an evaluation here. It seems as though the same subject is being " explained " by two divergent theses, and thus one thesis must be incorrect. But one is obliged to be hesitant about being misled by

superficial similarities between certain forms of expression, and moreover, to avoid philosophical confusions, one must distinguish the " surface grammar " of linguistic forms £rom their " depth grammar " or logical structure. The following analysis may be helpful to elucidate the problem.

If two observers watch a bucket fall from a workman's ladder, in the particular context envisaged, at least the subsequent sets of statements might be proposed to capture the sense of what has been seen.

Set A) 1. A bucket is hanging on a workman's ladder.
9l. The bucket is subject to the law o£ gravity.
3. The bucket falls *because* it is subject to the law of gravity.

Set B) 1. A bucket is hanging on a workman's ladder.
Q. The bucket is knocked off the ladder by the workman.
3. The bucket falls *because* the workman knocked it off the ladder.

For the purpose of our analysis, careful attention will be given to statements *Q* and 3 in both of the represented sets above.

It is contended that statement 2 of set A, " the bucket is subject to the law of gravity," is not being used to report an occurrence. The law of gravity, in this context, cannot be claimed to happen at a definite time, and surely it would be logically odd to ask how long gravity took. The bucket is subject to the law of gravity whether it is hanging from the workman's ladder or is held in the workman's hand. The statement implies that, if the bucket is not supported by some means, then it will fall according to the law of gravity. Such statements as "the bucket is subject to the law o£ gravity" may be given the appellation, as Ryle suggests, " hypothetical statements" [1] to distinguish them from other statements which display important differences in terms of logical status. An

[1] Ryle, Gilbert, *The Concept of Mind,* Hutchinson, London, 1949.

example of a statement which conveniently differs in logical environment from the " hypothetical statement " is statement *Q* of set B.

Statement 2 of set B, " the bucket is knocked off the ladder by the workman," is a report of something being done or something that has happened. Such statements which are used to report an occurrence or occurrences are generally called "categorical statements," [2] and they logically entail the possibility of asking certain relevant questions. For example, in our case one might ask how the workman knocked the bucket off the ladder. Did he hit it with his hammer or kick it with his foot? It is important to notice that not all the answers to the revelant queries will necessarily be known, but this does not affect the tenability of the position, since the notion of the "categorical statement" that is entertained here assumes only that the answers to such questions *could* be known and that the questions themselves constitute meaningful moves in the language.

Since it is clear that the two statements, " the bucket is subject to the law of gravity" and "the bucket is knocked off the ladder by the workman," do not perform the same logical function, it follows that the two derivative statements, "the bucket falls *because* it is subject to the law of gravity" and "the bucket falls *because* the workman knocked it off the ladder," also perform different logical functions and thus belong to different logical categories. Although the grammatical form of the latter two statements may seem to imply a contradiction between the statements, an analysis of their logical status makes it obvious that no logical contradiction obtains.

To say " the bucket falls *because* it is subject to the law of gravity" is not to deny that "the bucket falls *because* the workman knocked it off the ladder." If one explains the fall of the bucket in terms of gravity, then the sense of the statement is best understood by reference to a law, specifically,

[2] *Ibid.*

the law of gravity. On the other hand, if the fall of the bucket in statement 3 of set B is to be explained, then the occurrence must be explicated in terms of " cause " which is categorically distinct from the notion of "law." Thus, it is not a contradiction to maintain statement 3 of set A and B simultaneously, since the predications of the statements function in a logically different manner from one another. It has even been suggested that one statement can only be explained in relation to the other, which is a more complex question that can only be mentioned here.

The point of the discussion is that the examination illustrates an accurate account of what is meant by logically different categories. Therefore, the two observers of the bucket falling could explain and interpret the situation differently. If one of the observers were a physicist, he might explain the falling bucket in terms of gravity; the other observer might give the explanation of natural cause. Whatever the case, the assertion of one explanation does not exclude the other explanation, and both explanations could be maintained simultaneously by either observer, without contradiction.

Although only a cursory account of category distinctions has been viewed, the application of the notion of different logical categories seems clearly relevant to the problem of creation. The assertion that "the world was created by an explosion " and the Christian claim that " the world was created by God " are of logically different categories. That is to say, the two claims have quite distinct logical functions; they are not being used in the same way. Moreover, the scientific claim should not be construed as occurring in the logical environment of " explanatory statements." The scientific assertion *describes* a presumed state of affairs, but it does not necessarily *explain* them. That is, the claims of science about the creation of the world do not explain the occurrence of the state of affairs science is describing. The scientific claim may describe *how* a state of affairs obtains, but it does not necessarily explain *why* a state of affairs takes place. That is to say, science presupposes a state of affairs and then proceeds to describe it.

The Christian claim, on the other hand, attempts to explain the state of affairs that science describes. The Christian claim does not presuppose the creation " event," but rather it endeavors to explain the occurrence of the event by affirming a Creator in whom all states of affairs are grounded. Thus, the Christian assertion that " there is a God who created the world " does not imply that the assertion itself merely describes a particular or another state of affairs. Rather, the claim entails that God is the source of states of affairs but not one of them.

In the final analysis it is evident that the assertions of the following form are not contradictory, and furthermore one could hold both claims without being involved in a self-contradiction: A) The world was " created " *because of* an explosion. B) The world was "created" *because of* God (God created the world). In statement A) it is asserted that the world was created because of an explosion and in statement B) that the world was created because of God. These two uses of " because of" belong to two different logical categories. In A) the creation is described in terms or an empirical cause; in B) the creation is explained in terms of the source of states of affairs. To treat statement A) as if it belonged to the same logical category as statement B) is to make a category mistake which would commit one to answering senseless questions like how long the creation took and what was God doing before he created the world. Thus, to treat statement A) as though it belonged to the same logical category as statement B) leads to absurdities and entangles one m the linguistic confusion that I have wished to avoid.

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BOOK REVIEWS

The Doctrine of Merits in Old Rabbinical Literature and *The Old Rabbinic Doctrine of God.* By A. MARMORSTEIN. New York: KTAV Publishing House, Inc., 1968. Pp. and pp. 163. $14.95.

Many Christians, even in our own time, tend to regard Judaism as a religion whose development was terminated with the establishment of Christianity. Even many priests and scholars who know better on an intellectual level often disregard this knowledge on a popular level. Many Christians still see Judaism as a forerunner of Christianity. There is too little appreciation of Judaism as a developing religion. The way Judaism is true for the Jew, the way it validates itself, its role in the world, its response to challenges, and its ability to adjust and to survive have been of little or no concern to the Christian community.

A. Marmorstein's *Doctrine of Merits in Old Rabbinical Literature* illustrates the manner in which Judaism survived, adjusted to new conditions and responded to contemporary events, challenges, slander and calumnies. This response is indicated by the therne of the book, i. e., the Doctrine of Merits, which teaches that it is possible for man to acquire merits before God, a concept which concerned rabbinic authorities. The author also depicts the action-interaction technique which was utilized by the Tanaaim and Amoraim during the rabbinic period. This technique encouraged creativity and speculation which made this period so productive and helpful in reorienting, redefining and purifying Judaism. It created a new framework which enabled Judaism to survive after the destruction of the Second Temple. Another aspect of the response and development of Judaism is related by indicating the ability of Judaism to react to charges levelled against it and the manner in which it did so.

Marmorstein's theme is drawn from the Agadic material in rabbinic literature. He utilizes the Mishnah and the Talmud as well as the Mekilta (the halakic midrash to Exodus), the Sifra (the halakic midrash to Leviticus), the Sifre (the midrash to Numbers and Deuteronomy) and the Tanhuma-Midrash (the name given to three different collections of Pentateuch Agadot). He cites many other sources including various midrashim. The nature of the study does not involve the use of halacha or halakic concepts, i.e., the religious legal concepts of Judaism.

The book is very useful in illustrating the completeness of Judaism. By depicting the use of parables and religious philosophical concepts Marmorstein adds an awareness of a new dimension. Too often Judaism has been viewed by the non-Jew, particularly the Christian, as a system of dry

legalism. It has been forgotten that proverbs, anecdotes, parables and allegories were important rabbinic teaching devices. Since the material for Marmostein's work is drawn from the Agada, the relationship between law and lore in Judaism should be obvious. As Chaim Nachman Bialik, a modern Jewish poet, observed, Halacha and Agada are two sides of the same coin. Although the requirements for legal observances and responsibilities have played an important role in the unfolding of the religion of the Jewish people, the tradition also drew from the wealth of human experience, rarely negating any source of truth and human instruction.

The development of the Agadic method is depicted with regard to the development of the Doctrine of Merits. Contemporary events in the third century saw the metamorphosis of the teaching that the world was created for the sake of the Patriarchs and the righteous to the teaching that the world was created for the sake of Israel. This development, the author informs us, was connected with the polemics of the day.

> The church and the porch, the cathedral and the temple, revived the half forgotten and totally ill-founded abuses against the Jews. The Jews are a useless nation which had done nothing for the good of humanity. The Jews, so the Agadists reply to the Church, are something more than witnesses of the veracity of the Church; they are the source of every blessing and happiness. (p. 27)

Basically, the concept of the Doctrine of Merits teaches that certain benefits accrue to the individual, the Jewish people, the world, mankind, the generations, or a particular generation as a result of individual worthy deeds, merits of past generations, merits of particular individuals (especially Abraham and Jacob, a particular deed or deeds, or for other individual observances, goals or deeds.

Judaism has often had a tension within it regarding various aspects of its teachings. It has evolved a normative structure, but it has not been monolithic. The manner in which the Doctrine of Merits evolved is illustrative of the many dimensions of Judaism. Thus, for example, Shemayah and Abtalyon presented opposing concepts with regard to the Doctrine of Merits. The former taught that God divided the sea for the Israelites because of the merits of Abraham, while the latter taught that God divided the sea for the merits of the generation that stood by the sea itself. Hillel attempted to resolve this conflict (as did some of the Amoraim in the third century) by combining both ideas, i.e., the merit of personal faith and deed with the merit of the fathers. Other Tannaaim and Amoraim in the early centuries of Christianity emphasized one or another of these choices.

There are many variations on the theme of merits. There are, however, several basic ideas regarding merits, which are accepted with more or less agreement. Merits exist; they are based on the principles of faith, works and love. Merits justify here and now; the world itself was created for merits; it is sustained for merits and they will help man to achieve a share in the world to come. God gave the Law for man to obtain merits;

by not using merits they will be available for future generations; both Jews and Gentiles acquire merits for good works. The righteous can justify the existence of a group and even of a generation. He who brings others to good deeds attains merits. He who causes others to do unrighteous deeds is as guilty (if not more guilty) that he who performs them.

Group responsibility and the responsibility of the individual to the group is also emphasized in the Doctrine of Merits. A man or a woman cannot sin or do good without influencing someone else for good or for bad. This is true of the family, the tribe, the Israelites and the Gentiles. The innocent suffer for the wicked through the totality of human experience. The latter also receive blessings because of the former.

1'he Doctrine of Merits in Old Rabbinical Literat1tre exhibits Mamorstein's impressive depth of scholarship. The author explores the labyrinth of Talmudic and rabbinic sources in order to present his themes and his documentation. He cites both the Babylonian and Palestinian sources, various halakic and midrashic commentaries and various works in Hebrew, German, and English. Although the volume is significant and worthwhile, there are several drawbacks. It is regrettable that the structure of the book was so poorly conceived. Concepts are not presented in an orderly manner that progresses from section to section but are often introduced wherever there seems to be an opportunity. This process sometimes results in the same ideas being presented two, three, four or even more times. Sometimes what should have been the initial premise or statement is made well into the discussion of a particular merit. Dr. R. J. Zwi Werblowsky in a valuable prologue to the work makes the well-founded observation that it would have been preferable to have been able to produce a new work on the theme of merits because of improved rabbinic texts now available to the scholar rather than to reissue the present book which was first published in 19BO. However, the paucity of scholars capable of doing work in this area, balanced against the scholarly labor of Marmorstein and the abundance of the material he collected, justify the reprint of the earlier studies.

The value of this work is enhanced by including with it two other works by Marmorstein. Both of these were originally published under the title *1'he Old Rabbinic Doctrine of God.* The first book in this section is subtitled *1'he Names and Attributes of God* and was originally published in 19B7, and the second subtitled *Essays in Anthropomorphism* was first issued in 1937. These works should prove of interest to the Christian theologian as well as to the Jewish scholar.

Marmorstein's purpose in *1'he Names and Attributes of God* was to portray the historical development of the concept of God as reflected in the names used for God. Many of the names are descriptive terms or else depict attributes of God. This is sometimes accomplished by treating adjectives as nouns. Many of the names of God are attributes which man is to emulate. The very name by which God is addressed directs the

thoughts of man to the nature of God and to his responsibilities with respect to the Diety.

The Jewish people have been extremely interested in God, the names of God and God's attributes. A phrase often used to comment on this preoccupation is the designation of Israel as a " God intoxicated people." Since there is no systematic theology in Judaism, Marmorstein had a tremendously difficult task in researching these theological concepts, being obliged to delve into many hundreds of folios of old rabbinic literature.

The Old Rabbinic Doctrine of God is an impressive, erudite work based on the multiple sources of rabbinic literature and Hellenistic literature. The value of the book is furthered through the list of abbreviations used in rabbinic literature. This list should be valuable, helpful, and usable. The scholar, familiar with rabbinic literature, will have no difficulty with the abbreviations, but there may be some problems for the uninitiated. B is used, e. g., to indicate both the Babylonian Talmud and also Buber (editor of the Midrash Psalms). Since Bah. is also used to indicate the Babylonian ralmud, the editor could have adopted this abbreviation consistently.

There is a more serious lack in the editing of the book, if it is intended for interested priests and laymen who are not scholars in rabbinic literature. There are a number of statements which are quoted in the Hebrew. Some of these passages (many of which are quite lengthy) are translated by the author. Most of them are not. Since the book is interesting, readable and informative, in general, the editor would have done well to provide translations of the Hebrew material.

The third work in the current book deals with anthropomorphic concepts in rabbinic literature. There were two conflicting tendencies in Judaism regarding the human characteristics of God as depicted in the Bible. There were rabbinic teachers who insisted on the literal translation. God hears, listens, responds, says, etc., and these ideas are to be taken literally. Other rabbinic teachers went to great lengths to understand and explain the Bible in an allegorical manner. The Bible uses human terms, describes God in human form, etc., because this is the way man thinks and can comprehend God's works. But God is not to be thought of as a human person.

The problem that man faced in the Talmudic age was how does man adjust contemporary knowledge with Biblical teachings. Is the Bible to be accepted literally or figuratively? The literalists were balanced by the allegorists, who reinterpreted through the use of new methods or incorporation of new ideas to teach ancient truths. As in so much of Jewish life, both concepts continue to function, and both continue to be accepted as valid aspects of a living tradition.

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Paul and Qumran. Studies in New Testament Exegesis. Ed. by JEROME MuRPHY-O'CoNNOR, O. P. Chicago: The Priory Press, 1968. Pp. *$5.95.*

The volume under review is a collection of essays compiled (and translated, where necessary) from various scientific journals, under the editorship of the Irish Dominican exegete, Jerome Murphy-O'Connor. These essays (nine in all) concentrate on the institutions, words and ideas found both in the writings of Paul and of the Essences.

In the opening essay the Director of the Ecole Biblique, Pierre Benoit, O. P., lays down solid principles on which should be based any fair attempt to draw parallels or to conclude to real contact between the New Testament and the Qumran Scrolls. While Essenism had some direct influence on Christianity, this was not at the very beginning, but later. "The contacts with Qumran come less through John the Baptist and Jesus, than through Paul, John and the faithful of the second generation." Benoit also points out that, while the New Testament can share with Qumran certain themes and expressions, yet everything has been transformed from within and endowed with a new significance. Joseph Fitzmyer, S. J. shows that the Scrolls cast light on the obscure and seemingly incomprehensible mention of the angels in 1 Cor. 11 : 10-Paul's admonition to the Christian women of Corinth that they should wear a veil during public worship "because of the angels." We learn from two Qumran texts that bodily defects offend the sight of the angels who are present at public worship. Paul argues that the unveiled head of a woman is like a bodily defect which should be excluded from the sacred assembly.

The passage 6:14-7:1 has long been regarded as an interpolation; now it is seen to have a remarkable affinity with the Qumran literature. Joachim Gnilka concludes, however, that it cannot be an Essence document but a document penned by the hand of a Christian author. He holds the view that Cor. represents a collection of Pauline letters or letter-fragments; the editor of the collection believed the passage in question to be a fragment of a Pauline letter. The passage 1 Cor. 6 : 1-4 leads one to presume that the church of Corinth had instituted courts for the benefit of the faithful. It has seemed to Mathias Delcor that a more adequate idea of the probable organization of the courts of the primitive Church can be obtained by studying those of the community at Qumran rather than those presented in the rabbinical writings. His conclusion is that, despite important differences, what is apparently the same judicial system existed in the courts of Corinth and at Qumran. The long article of Walter Grundmann studies the doctrine of justification by faith as proposed by the Teacher of Righteousness and by St. Paul. Both have a personal experience as their starting point, and both found the notion of salvific justice in the Old Testament. But the former made a connection between justice and

grace and scrupulous fulfillment of the Law which was not open to Paul; for him the place of the Law is taken by Christ. The faith in Christ, which saves a Christian, is faith in the crucified and risen Christ. This study offers a striking case of the similarities and the very great differences between Christianity and Qumran.

Both Karl Georg Kuhn and Franz Mussner consider the light thrown on Ephesians by Qumran. Kuhn first examines the language and style of Ephesians and concludes that the relationship of the language and style of the epistle to that of the Qumran texts can hardly be explained except on the basis of a continuity of tradition. Then he turns to the origin of the paraenetic tradition of Eph. 4:1-62:20 and shows that a part of these admonitions comes specifically from the tradition of the Essence paraenesis as we find it in the Qumran writings and the late-Jewish texts that are closely connected with them. Mussner investigates various recurring themes, concepts and patterns of thought in the Epistle. He treats of "mystery"; the bond between the community and heaven (Eph. 2:6, 18); the community as temple and city (2:20-22); re-creation (Eph. 2). It transpires that the Scrolls throw much light on Ephesians, especially on the central section formed by Eph. 2, where we find a common thematic association of ideas. This strengthens the belief that the thematic material of Ephesians has its roots in a tradition that is also represented at Qumran. For the rest, the outlook of Ephesians is very different from that of Qumran, for it sees everything in the perspective of the Christ-event.

Joseph Coppens studies the term "mystery" in the theology of St. Paul and notes the usage of the term in Qumran. In its strict and religious sense the Pauline "mystery" (generally in the singular) appears principally in the Captivity Epistles. Whereas in his earlier epistles Paul does not restrict the term to a single reality, in the Captivity Epistles the mystery is Christ in all his dimensions, insofar as in him the divine mystery is realized. This Christological emphasis marks the most obvious contrast to the Qumran "mysteries" (almost always in the plural)-all the wonderful works of the divine plan from the beginning. Yet some at least of the Pauline texts do become clearer in the light of the Qumran evidence. And, of course, it is no longer needful, nor even admissible to seek the origin of the Pauline doctrine of mystery in Hellenism.

In the final essay of the collection the editor himself examines the concept of truth in the Pauline and the Essene writings. The Essene concept of truth is homogeneous with that of the Old Testament; and this factor, of course, would explain marked similarities both of thought-content and terminology between Paul's concept of "truth" and that of the Essenes. Contacts are significant, therefore, only in the measure that they are on points peculiar to Paul and Qumran. A matter of particular interest is the fact that three passages from the *Hymns* very strongly support the view that in 1 Tim. 8:15 it is Timothy (not the Church)

who is a "pillar and bulwark of the truth." In general, it emerges that the most characteristic aspects of the Pauline concept of truth are almost exclusively associated with definite blocks of Epistles and not scattered throughout the corpus. The theme of truth, as it occurs in Ephesians and the Pastorals, in marked affinity with its occurrence in the Qumran writings, suggests that those who penned these epistles, secretaries or disciples of Paul, were converted Essenes.

It is inevitable that further research will modify some of the views put forward in these essays. Some suggested contacts may seem less likely, whereas others may be discerned. At any rate, a strong case is made for the influence of Qumran on Pauline language and concepts. Two points emerge clearly, nonetheless: the originality of the Christian message and the fact that the influence of Essenism on Christianity took place in its later development rather than during its early years. An important feature of many of the essays is that, in working out parallels between Paul and Qumran, they develop Pauline doctrine and explain texts in a manner that is illuminating, whether or not one accepts the proposed Qumran affinity. One can instance Grundmann's treatment of justification and Coppens' synthesis of "mystery."

Paul and Qumran must be given a special place among the scholarly writings about the Scrolls-and the scholarly output in this area is immense. Father Murphy-O'Connor was conscious of a communication gap between the scholars and others who are interested in the progress of their research and decided to do something about it: "My sole object in compiling this book was to bridge this gap by rendering more accessible some of the more significant articles devoted to study of the contacts between the Pauline writings and the Essene documents." His own splendid essay assures us of his competence for the task. All serious students of the New Testament owe him a real debt of gratitude.

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Summa Theologiae, Volume 33 (Hope). By Saint Thomas Aquinas. Translated and Edited by WILLIAM J. HILL, O. P., (New York: McGraw-Hill, 1966). Pp. 226. $6.75.

The meaning and implications of Christian hope are being contemplated and appropriated these days as seldom before in the history of the Church. Quite as remarkable as the present concentration on the " great forgotten " doctrine of hope is the diversity of persons (and ideologies represented) in dialogue. Not only are pioneering Christian theologians, such as

Jiirgen Moltmann and Johannes Metz, focused on hope but traditionalist and progressive Catholics, fundamentalist and liberal Protestants, political conservatives and radicals, Marxists, members of the " new left," and many people yet unlabelled by these " catch-all " categories, are all finding common ground in its consideration. At its core, the " theology of hope " movement is both extremely radical-in its reinterpretation of temporality, eschatology, and history, for example-and deeply committed to such traditional sources of authority as Holy Scripture and the Church.

Saint Thomas found in the doctrine of Christian hope an essential ingredient for his theology, and he telescoped many of the" contemporary" discoveries and issues as he meditated. Thus with real pleasure we welcome Volume 33 of the new *Summa Theologiae,* which offers forcefully Saint Thomas's major articles on hope together with those subsequent, related questions about fear, despair, presumption, and "precepts." The translator and editor of this volume, William J. Hill, 0. P., has framed his English version (facing a Latin text) with an introduction, some notes of reference and explanation, and index, a glossary, and nine appendices.

The six questions of the *Summa* which Hill has included form a *conditio sine qua non* of most Catholic appropriations of the Biblical doctrine; and Saint Thomas's spiritual sensitivity regarding hope offers illumination for all other men as well. Saint Thomas carefully delineated the theological virtue of hope from the more mundane, yet not totally disanalogous, hopes of men. He found reasons for hope in the creation itself, in the teleological cosmology which he found all-pervasive, in the redemptive purpose of God, and in the person of Jesus Christ. He unfolded Biblical references to hope with an exuberance seldom approached in Christian history, at least until the present day. He linked hope inseparably with fear, as does the Bible. He weeded negative from positive hopes and the spurious from the true. Saint Thomas also warned against the twin violations of hope-in despair and presumption-a necessary corrective in his own day (and perhaps even in ours) to any preoccupation with despair alone. In brief, Saint Thomas balanced a joyful theology of hope with correlative warnings to the *viator* on its deceptive potential.

Father Hill is to be roundly congratulated for performing, in excellent fashion, the difficult tasks to which he set himself. Evident from the notes and appendices is the fact that Scripture's first and final words occupy the same focal place for the editor that they did for Saint Thomas. Moreover, as his numerous citations to Biblical passages indicate, Father Hill has attempted to retain the " utmost importance " of Scriptural data. His first appendix, " The Revelation of Hope in Sacred Scripture," serves to reiterate Biblical priorities and to guard against imbalanced readings of the *Summa.*

Father Hill's honesty is refreshing also. He is unwilling to distort by simplistic, neat designations the profound and very subtle insights provided by Saint Thomas. On the incredibly complicated *concursus* of causalities,

for example, he has warned (p. xix) of its possible injustice to contingency. Again, he has provided assistance in viewing Aristotelian "four-fold" causality (p. 14) but has not tried to explain the entire relationship of final to efficient cause, a seemingly essential ambiguity on which the saint meditates (II-II, q. 17, a. 4). He has not "rationalized-away " the enigmatic quotation by Saint Thomas of Ben Sirach 25 :16. (p. 66) On the matter of relating time to hope, he has chosen to illustrate from art rather than from logic.

Most enjoyable, however, are the consistent invitations for contemplation on Christian hope which Father Hill offers. His presentation, as well as this portion of the *Summa*, proves " open to organic growth." (p. xx)

Realizing that everything about hope cannot be provided in a single volume and that additional, secondary information might clutter the volume's present forcefulness and clarity, nevertheless I would certainly have appreciated further remarks in several areas. The relationship of this section on hope to that on hope among the angels has not been discussed by Father Hill. Since Saint Thomas seems to have found true for angels much of what applied to men, this word may be peripheral. On the other hand, perhaps I, q. 59, a. 4 (see Volume 9, "Angels," p. 183) and other references can shed light on the present discussion. Again, the notes and Appendix 2, "Historical Context: Crisis and Clarification," make no mention of Joachim of Flora, whose contributions to a medieval theology of hope were certainly profound and perhaps even provided a part of the immediate context for the views of Saint Thomas.

Secondly, I find the notes and appendices innocent, in large measure, of the contemporary dialogues. Marxist categories, the mention of Ernst Bloch's *Das Prinzip Hoffnung* (Frankfort, 1959), detailed words about the prophetic Gabriel Marcel (pp. 127, 143), and some indications of the work of Moltmann, Metz, and others would have been most welcome.

Thirdly, and most serious, I miss any but stereotyped (albeit gentle) hints at non-Catholic " dislocations " of hope. Luther's position is caricatured; Calvin is ignored; Easterners have been omitted altogether, excepting early ones. Only Paul Tillich, whose contribution concerning hope can scarcely be termed signal, has been cited seriously in discussion. (pp. 156, 178)

Even considering these criticism of omission, Father Hill's efforts and his successes in proffering a serious commentary on Saint Thomas's theology of hope must be considered extraordinary. The new English *Summa*, which evidences a uniformity of excellence rare indeed among multi-volumed endeavors, is undeniably enriched by Father Hill's editing and translating of Saint Thomas's central section on hope.

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Faith in the Face of Doubt. Ed. by JoHN P. KEATING. New York: Paulist Press, 1968. Pp. 173. $1.45.

This book is a collection of eight talks given at the Catholic student center at the University of California at Berkeley. The five contributors are Jesuits. They make a gallant effort to show an understanding and sympathy with students whose studies and environment may breed a challenge to their faith. Generally, the case for faith is ably stated. But, to create sympathy with a critical audience, some uncritical and challengeable assertions are made. I quote a few. Fr. L. Patrick Carroll writes: " Biblical criticism has demythologized the historical facts related to the gospels and reduced much of our knowledge of the man Jesus Christ to the fact that a particular group of people in a particular time experienced something that dynamically orientated their lives, and this ' something ' was Jesus Christ." (p. 78) We are not told whose biblical criticism or which historical facts. Is such a sentence capable of leading a young man from doubt to certainty?

Fr. John A. Coleman, writing on grace and St. Augustine's reply to Pelagius, says: "St. Augustine reaffirmed man's entire dependence on the gracious God. Unfortunately, Augustine muddied the waters by making grace seem like a thing. At times he portrays God as very choosy about his friends, demanding of man an abject, infantile stance of dependence." (p. 96) Yet, strangely enough, it is from these " muddied " waters that the Council of Orange draws its teaching on grace.

The same author, speaking of the change God brings about in us, says: " Some theologians choose to call this change in us by the name of grace." It is not merely some theologians but the Church itself that uses this word to describe the healing and complete readjustment of our nature which God brings about. The Church does not use this word to describe only " loving initiative, respectful of our freedom." Grace is not just God's graciousness. (Cf. Denz. 821, can. 11 on justification.)

Is it fair for Fr. Roger J. Guettinger to suggest that in I Cor. 6 :16 " St. Paul is saying among other things, that the sexual act-even when it is performed with a prostitute-can express either love or something less than love and can be a source of either growth or dehumanization "? If St. Paul values fornication so positively, why does he say: "Fugite fornicationem "?

Several statements are unfairly critical of the Church and of its members. Fr. L. Patrick Carroll, writing of the challenges of non-belief, says: " The men who challenge or ignore religion are not naive, or sophistic, or even uninformed. They are honest men who know much about religion in general and Catholicism in particular. We have fostered whatever misconceptions they entertain." (p. 117) Has the Church preached a misconception of God's true self? There is still room for the sin of rejecting the light, and

especially among intellectuals whose temptation is pride. Indeed, it is strange that in this book nobody mentioned the need of humility, except in the act of ridiculing St. Augustine for demanding " an abject, infantile stance of dependence." In a book on faith, even to college students, one would have liked to hear quoted: " unless you become as little children."

In the same essay it is stated that: "we must admit the obvious morality of many non-believers and must assent to the fact that their approach has often flowered in more concrete loving activity in the world than has been furnished by a trans-temporal Christian faith." (p. 121) But, why should we foul our own nest in this way? After all, it is God's Church. Has Fr. Carroll reflected on the complete failure of the unbelieving world even to tackle the problem of poverty and disease? Is it just to make such a statement without mentioning the martyrs of charity in the Catholic Church?

I put these questions not to damn a book of many merits but to express my disagreement with these loose and inaccurate ways of speaking. Perhaps they gain the passing sympathy of a particular audience, but they do not witness to the truth. In the end, that is what matters.

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The Beginning of Eternal Life: The Dynamic Faith of Thomas Aquinas, Origins and Interpretation. By JAMES A. MoHLER, S. J. New York, Philosophical Library, 1968. Pp. 144. $4.95.

Students always need exposure to solid learning from the Christian tradition by their contemporaries. Father Mohler steps forward with his offering to satisfy this need. The scope of his work is highly restricted. He is presenting here only the teaching of St. Thomas on faith, bagically the content of the first seven questions of the *Secunda Secundae.*

Each of the four expository chapters begins with a sketch of the sources used by St. Thomas (generally by indicating the thought of a few significant Fathers, and digesting the thought of the earlier scholastics); he then concentrates on summarizing the thought of St. Thomas on the subject matter. The main points exposed are the definition of faith in Hebrews 11: 1; Augustine's description of faith as *cogitare cum assensu;* the object, act, and habit of faith; and faith as a virtue. Each chapter concludes by inquiring into the peculiarity of St. Thomas's contributions to the theology of faith. These are seen to be: an appreciation of the dynamically eschatological dimension of faith, i. e., faith already introduces us into the

dimension of the eternal by uniting us to the First Truth; a refreshing and original balancing of the cognitive and affective elements of faith; and a precising of the relation of charity to faith. The final chapter provides a brief summary.

Much of the work amounts to a re-organized and interwoven translation of the *Summa* and the *De Veritate,* with the addition of a fair sprinkling of the *Commentary on the Sentences.* On the whole, the book is not remarkable for its originality. It is basically a paraphrase of St. Thomas (and, on occasion, an overly literal one). It is valuable for making accessible in a usable English form the teaching of Aquinas, and for providing the original version of the texts cited. Users of the book are presumed to have some background for handling the baldly presented scholasticism. Terms such as agent intellect, possible intellect, end in common, and formal reason of the object (a distressingly inadequate translation of *ratio formalis object·i)* are used, for the most part, without a word of explanation. A notable contribution of the work, however, is the thorough documentation and the Latin texts (especially for the early scholastics) in the forty-seven pages of footnotes, plus a good bibliography.

This work would be a valuable source for a course on faith. Students could cover much of the basic course information by reading, and lectures could then focus on interpretation. All in all, a useful product.

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Evolution and the Doctrine of Original Sin. By STEPHANUs TROOSTER, S. J. Glen Rock, N.J.: Newman Press/Paulist Press, 1968. Pp. 138. $4.95.

The Sources of the Doctrines of the Fall and Original Sin. By. F. R. TENNANT. New York, N. Y.: Shocken Books, Inc., 1968. Pp. 390. $7.50 cloth, paper.

These two books may sell because they cover the lively and currently controversial subject of original sin. But there are several far better books treating the same matter already on the market.

Trooster's book is almost completely derivative, according to himself. This fact will discourage the teacher of theology who only has time to read the best of modern theology and prefers to read the primary sources. The author also remarks: "It is certainly not difficult to analyse and write critical commentaries on the attempts of others to arrive at new solutions, especially if such attempts have not as yet completely matured." (p. 41)

This is not true of his work. It is extremely difficult to make an assessment of it, favorable or unfavorable. It is a torturous work, with an abundance of qualifications at all the crucial points in his arguments. Like his acknowledged theological mentor and compatriot, Peter Schoonenberg S. J., he lacks the charisms of simplicity and clarity. In fairness, however, his labyrinthine thought and ponderous expression stem to a great extent from the very nature of the difficult task he has set himself.

Trooster tries to reformulate the *dogma* of original sin in terms of the modern and scientific evaluation of man and the cosmos. In practice he tries to square evolution and closely related disciplines or theses with divine revelation concerning original sin. He writes: "To place an extremely gifted and highly privileged spiritual man at the beginning of human life on earth appears in complete contradiction to modern scientific thought on this matter." (p. 18) Nevertheless, the author does make a brave effort to salvage something of the teaching of the Church on original justice after it has been torpedoed by the dogmatic assertions of modern science. The spirit of the book is captured in another similar passage. "Acceptance of the modern viewpoint, however, eliminates the possibility of accounting for the genesis of evil in the world on the basis of sin committed by the first man. After all, how could so primitive a human being have been in a position to refuse God's offer of salvation; how could such a primitive being have been capable of a breach of covenant with God?" (p. 18) These are, of course, legitimate questions. But it seems to me that the modern theology of original sin as presented by Trooster is bristling with as many imponderables as the traditional theology.

Perhaps the modern difficulties are more real and acceptable to the modern man. Still, I feel that Trooster should have followed the guidelines for research set down by Pope Paul in attempting to achieve a formulation that is compatible with modern science. Theology is essentially ecclesial and cannot make any lasting progress without the positive effort. to keep in vital continuity with the Magisterium. The student of theology would benefit more from a book like "Christ and Original Sin" by Peter De Rosa, if he wished to keep abreast of the latest and most balanced developments in the theology of original sin.

F. R. Tennant's book was first published in 1903. He was one of the giants of the English Protestant theology of his day. One admires his intellectual integrity and enjoys his literary style, even though one cannot often agree with his conclusions.

In the introduction by Mary Frances Thelen we read: "Tennant presented three arguments to show that there is no such thing as original sin: (1) there was no literal historical fall. There is no bias toward sin. (3) The racial solidarity or racial inheritance, whose recognition was the fruitful part of the doctrine of the Fall, is to be located in the material of sin, not in sin itself." (p. iii) However, when he explains himself, he is as

close to the Catholic teaching on original sin as Trooster is. His difficulty is the perennial one that original sin cannot be sin at all because there is no personal responsible action. Any Catholic student could have told him the answer to his difficulty by making the necessary distinctions.

However, this book will be of interest to the historian of the non-Catholic theology of original sin. Old Testament scripture students will be interested in his interpretations of Genesis. It is disappointing in its scanty reference to possible parallels of the Fall story in Indian religions and philosophy. (This, of course, is a personal regret because a fuller treatment would have been helpful for one teaching the theology of original sin in India!) One wonders how great the contribution to theology by a man of Tennant's obvious intellectual stature and culture would have been had he the positive and certain guidance of the Magisterium to encourage him. I feel he would have made a splendid attempt to reconcile evolution and the traditional teaching of the Church. His attempt, such as it is, anticipates many of the best insights of present-day Catholic theologians. Of course, he was a scientist and a theologian and not just one or the other, or worse, neither,-which seems to be the case with some contemporary writers on original sin.

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The Church and the Body Politic. By FRANKLIN H. LITTELL. New York: The Seabury Press, 1969. Pp. 175. *$5.95.*

Every adult Sunday school class and study group will find much to discuss and to challenge them in *The Church And the Body Politic* by Dr. Franklin H. Littell, eminent educator, historian and President of Iowa Wesleyan College, Mt. Pleasant, Iowa. Churches must stop expecting government, schools, public welfare agencies or the medical profession to be official organs of Christianity, he warns. Two-thirds of the world are under communism; Europe is no longer a secure base for Christianity, and the Supreme Court of the United States has at last faced up to the First Amendment of the Constitution which established America as a society of many faiths-none of them connected with the government. Yet, Dr. Littell sees no cause for despair if Christians and churches, armed with new programs and direction, realize that the present situation provides unparalleled opportunities to get about the Lord's business. " After all," he says, " Christ died for the world, not for the church! "

He questions those who would train church members to be lay clerics, urging the dignity of the laity as such. He urges churches to make

membership more difficult and cites examples of the accomplishments made by those who demand effort and commitment above attendance and donation. To those who say the church should stay out of politics, Dr. Littell shows that, historically, in cases where the church stood mutely by. totalitarianism took over-as in Russia and Nazi Germany. He says the time has come to abandon the over-emphasis on mass evangelism-which has brought American church membership from 6.9% in 1800 to a constituency of 96% of the population today-and get down to work. In conjunction with higher membership standards he feels work-study groups should be organized around members' vocations so that religious ethics can be strongly and boldly advocated where they are needed most-in every part of and at all levels of a community's daily life.

A former professor of church history at The Chicago Theological Seminary, Southern Methodist University and Emory University, Dr. Littell avoids preaching in his book and relies on examples, statistics and a broad base of historical fact to call American churches to action. The church should take a strong position on public issues and in politics, he says, and not let government and technicians direct American life. " The most awful figure of the modern world is," he states, " the technically competent barbarian-the master of persuasion who sells his services to the highest bidder or the careful bookkeeper who counted dead bodies at Dachau and Auschwitz."

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John Knox. By JASPER RIDLEY. New York: Oxford University Press, 1968. Pp. *596. $9.50.*

Against the turbulent background of the sixteenth century, Jasper Ridley has written a comprehensive exciting biography on " the light of Scotland," John Knox. A man of mysterious character and high achievement, this Scot is pictured in all the controversy which surrounded him but without the false slanders. The author is essentially concerned with Knox's revolutionary ideas, activities and his mentality, which viewed the world in essentially political terms. Mr. Ridley pictures this political-religious thinker as " one of the most ruthless and successful revolutionary leaders in history," and as one rather to be encountered in history books than in the flesh. Dictators and mobs might murder an opponent whom they considered dangerous or for the purpose of revenge, but Knox is the onlv revolutionary " who proclaimed that it was sinful not to kill their
The author traces the development of Knox's thought from the Berwick

congregation, where he taught that the monarch must be obeyed, until the accession of Queen Mary when his views changed radically. Rule of women, in Knox's opinion, was contrary to nature, a view in which he became more hardened.

A pragmatist of the highest caliber, a successful strategist, he could another. His passions did not seem to be limited to the cause of Scotland against the rule of women, yet appeal for help from Queen Elizabeth I. A powerful individual by temperament, yet one whose strength lay in the organization that he built, he could uphold one murder and yet condemn another. His passions did not seem to be limited to the cause of Scotland and religion, for in the last seven years of his life, when he was fifty years old, he married for the second time a girl of the age of seventeen.

As a theologian, he certainly was not a John Calvin, Martin Bucer, Peter Martyr, or, for that matter, a Thomas Cranmer. It was not in his nature to enter into subtle analysis of deep theological questions. He never formulated "his opinions on the nature of the [Real] Presence with any clarity " until he went to Geneva where he accepted Calvin's and Bullinger's. In fact, he seemed more like a renaissance political pamphleteer than a theologian, being bitter and invective in " vilifying and ridiculing the mass [sic] and the adoration of the Host." He could label and attack any of his religious opponents with the ability of a nineteenth-century politican.

In an age when success is the measure of greatness John Knox cannot help but be appealing. A regime which has lasted over four hundred years cannot be considered anything less than successful. The Church of Scotland worships today essentially as it did in Knox's time. The order of worship is still that of Geneva, and communion is still received sitting. This is Knox's achievement. "He was, after all, a religious leader, and although all his life he was absorbed in political struggle and would never have accepted the idea of a non-political Church, the daily and weekly religious service was the central thing in his life. This still remains."

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A Marriage Manual. By DR. WILLIAM LYNCH. New York: Pocket Books, 1968. Pp. 807. *95¢.*

Sex in Marriage: Love-Giving, Life-Giving. By the Archdiocese of Washington, 1968. Pp. 40.

Dr. Lynch's book is a physician's practical guide to marriage. The author tells us that it has been his privilege as an obstetrician-gynecologist " to see people who are involved in happy marriages find the power of

their love in their own lives and the meaning of the expression 'count your blessings'." He speaks for the normal marriage, not the abnormal. As surveys of the normal are difficult to come by, this manual is particularly valuable, because one whose knowledge of human nature is gathered largely from dealing with normal people inevitably gets a more balanced view of marriage than another whose chief concern is the pathology of marriage, no matter how orthodox his moral principles.

The author treats of the Catholic concept of marriage, the Catholic family, and every aspect of marital relations from dating and engagement to menopause and death, in a very readable and nontechnical manner. Indeed, this manual is remarkable for its clarity and completeness. If there is one criticism of this otherwise excellent pocket edition, it is that nothing has been added to the text since the appearance of the original, high-priced edition in 1964. Consequently, no mention is made of the relevant statements pertaining to marriage as found in the documents of Vatican II. It would be incorrect, however, to conclude that the rich insights of the Council have not been anticipated by the author. They certainly have, as is evident from his chapters on the meaning of marriage, the Catholic family, and the limitation of the family.

It has been said on good authority that there is no group of men in contemporary society more responsible for discrediting the Catholic concept of marriage than the medical profession. Of course, there is no doubt that for them, more so than for any other professional group, moral principles can pose very acute and painful problems, particularly in the field of marriage. Still, it must be insisted that the moral conscience of the medical profession is a most vital factor in any community. The great merit of the book under review is that it has been written by one who, in the words of Pope Paul VI, values above every human interest the superior demands of his Christian vocation. *A Marriage Manual for Catholics* should prove of considerable assistance to married couples and a valuable aid and encouragement to the Catholic medical profession to take up enthusiastically the call to help those in need of direction " so as to be able to give to those married persons who consult them wise counsel and healthy direction, such as they have a right to expect" *(Humanae Vitae,* pp. 27). This should be the object of the Catholic medical profession's most enlightened concern today.

The booklet, *Sex in Marriage,* treats of many questions asked since the appearance of *Humanae Vitae* in a very clear and unambiguous manner. It succeeds admirably in counteracting much of the intemperate comment that has tended of late to bewilder the popular mind. Although the Encyclical raised a number of fundamental questions which theology is only still in the process of clarifying, the replies in this booklet nonetheless provide the broad lines for an ultimate satisfactory solution.

Particularly valuable and timely are the distinguished author's replies to

such questions as: the relation between authority and conscience; the relation between the Magisterium and the natural moral law; the fundamental difference between contraception and rhythm; the apparent parallel between the condemnation of Galileo, usury and contraception; the unbreakable link between the life-giving and the love-giving aspects of sexual intercourse; the reception of the Sacraments on the part of those who practice contraception. With regard to this last problem, a pastoral directive of great understanding and compassion is given. Married couples, we are told, who " honestly try to stop using contraception and who fall into sin should not despair, even if it happens over and over. Such couples should go to confession and then return to Communion. They should stay close to Christ in the Eucharist by receiving Him often, even-or especially-when they are struggling with temptation - - - - In going to confession, people should not demand more of themselves than God is demanding of them. But this does not mean being sure one will never fall again. . . . We believe that God rewards those who keep seeking Him, no matter how unsuccessful they seem to be in their own eyes."

This booklet was primarily written for the benefit of the faithful of the Archdiocese of Washington. However, it has already been widely appreciated in many places far removed from its immediate intended destination. It should continue to enable all who read and study it to realize that Pope Paul VI has certainly benefitted mankind by issuing his Encyclical.

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The Religious Dimension in Hegel's Thought. By EMIL L. FACKENHEIM. Bloomington: Indiana University Press. *$8.50.*

To the average university student today Hegel's thought seems unintelligible. It has little connection with the world of science and technology. Its theories, if they are not simply fantasies, seem arbitrary constructions of existential facts. Its core dialectic, although somewhat corresponding to an emergent evolutionary model of the world, nevertheless seems strange, *a priori*, and enigmatic.

And yet this peculiar speculative construction was created from beginning to end precisely to explain and justify the modern mind. It is a closely reasoned off-shoot of Kantian and post-Kantian thought whose point of departure is the defense of the modern scientific world-view. This has perhaps never been presented with greater penetration and detail than by Johann Erdmann, the Hegelian of the right of the last century, in the second volume of his *Outline of the History of Philosophy.* With vast erudition and deep insight he shows how Hegel arose step by step

from the original Kantian endeavor to bolster the claims of Newtonian science. But the point to which Hegel was eventually led in this process seems remote from its beginning and even in conflict with it. This is in good part what makes him unintelligible.

And yet, contemporary thinkers cannot escape from him. He has laid down their terminology and for many, if not for most, this is indispensable. Existentialism's debt to it is well-known. Hegel's terminology is to contemporary philosophy what scholastic terminology was to modern philosophy after the Reformation.

But his influence is more than this. The content of his thought also emerges every once in a while to command renewed attention. I suspect that this is because the steps that led to it, taking their point of departure in the modern scientific mentality, have not yet been overcome. Every thinker who moves from the same beginning tends to follow the same path and, sooner or later, to become once more fascinated with the great German.

In the past few years theologians have shown this interest in him and probably for the same reason. An interesting article by Peter Henrici, S. J. documents this, "Hegel und die Theologie," *Gregorianurn,* No. 4 (1967), 706-746. Professor Fackenheim's book is part and parcel of this new interest. He agrees with the common opinion that Hegel's thought was fundamentally Christian. Hegel, he thinks, took his beginnings from the Christian religious consciousness and from that passed to philosophy. This seems to be supported by Hegel's own statement: "Religion can exist without philosophy. But philosophy cannot exist without religion. For it encompasses religion" *(Encyclopedia of the Philosophical Science,* second preface). This means for him that religion, under the impulse of the dialectic, gives rise to philosophical consciousness.

Entering into considerable detail, Professor Fackenheim tries to show exactly how this occurs. The exposition is highly competent. The author knows his Hegel. His chief problem, however, is one common to all Hegel's commentators. He is burdened with the enigma of the dialectic. This is not elucidated in any way by describing its stages. The reader wants always to know what is its proper meaning and justification. If it is viewed simply as a phenomenological presentation of an evolutionary process, it seems intelligible enough. But when it is presented in Hegel's terms as a peculiar relational structure of position and negation, it seems to disappear into thin air.

The reason for this unintelligibility, it seems to me, is the lack of knowledge of ancient and medieval thought among our contemporaries. They cannot therefore grasp its presence in the Hegelian dialectical triad. Professor Fackenheim is quite right when he points out that Hegel is as much a " response to Aristotle " as he is to Kant, Fichte and Schelling. (p. xii) He "shatters the context of German idealism" by this. *(ibid.)* It is the presence of Platonic and Neoplatonic relations in the dialectic,

totally neglected by the contemporary mind, which creates the unintelligibility of Hegel. As Professor Fackenheim so trenchantly puts it, this lack of a Platonic dimension would make A. N. Whitehead seem to Hegel an anachronistic and inferior Plato. (p.

Hegel was unique among the leaders of modem philosophy because of his penetrating appreciation of at least some profound themes from antiquity. It is no accident that he closes his *Encyclopedia of the Philosophical Sciences* with a quotation from Aristotle's *Metaphysics.* He cites this without commentary, as much as to say that all the preceding is simply to give it meaning and that it gives meaning to the preceding. The reference is to the doctrine of the *Nous.* In view of this it is difficult to see how anyone could attempt to interpret the Hegelian dialectical triad without first clearly stating the Aristotelian and Platonic doctrine of the *Nous.* Hegel is truly a response to antiquity as much as to Kant. Radically, it is this which creates his greatest obscurity to the modern mind untutored in the ancient metaphysics.

The student of Neoplatonic metaphysics who compares its fundamental axioms with Hegel's statements concerning the elements of the dialectical triad cannot help but be struck by the similarity, even identity.

But this dialectic poses two problems. The first has to do with its own inner structure and relations; the second has to do with the more or less factual expose of the stages through which it gone in history. These two were never strictly interconnected in Hegel's thought. This makes the particular triadic structure through which religion gives rise to philosophy at least problematical. And it also makes it impossible logically to attack the validity of the dialectic in itself simply because it does not follow tho particular concrete historical steps which Hegel ascribed to it. Here, it seems to me, Professor Fackenheim is on shaky ground. And his statement that Hegel, if he were to return today and see what has happened to the flow of history since his time, would no longer be an Hegelian, (p. identifies too closely the dialectic in itself and the actual historical process.

The root attitude which gave rise to Hegel's thought has not yet been transcended. We are in a post-Hegelian age chronologically but not conceptually. And our age will return in puzzlement to the German master as long as it still adheres to the mentality which grounded his enigmatic thought.

Professor Fackenheim's book is a valuable contribution to the present renewed interest in the religious dimension of Hegelianism. The reviewer will look forward with anticipation to the follow-up volume on Kant, Fichte, Schleiermacher and Schelling.

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The Mirror of Language: A Study in the Medieval Theory of Knowledge. By MARCIA L. COLISH. New Haven and London: Yale University Press, 1968. Pp. 427. $10.00.

Marcia Colish has selected a fascinating theme for this work, the way in which the classical liberal arts tradition of language theory combined with the Christian theologies of the Divine Logos to influence the epistemological theories which lay at the basis of scholasticism. Too often this liberal arts tradition is considered only as an item in the history of education, and its deeper philosophical implications are passed over.

After an introduction in which she expounds the general issues, she selects four key authors to illustrate these, St. Augustine, St. Anselm, St. Thomas Aquinas, and Dante. Very neatly, and in my opinion quite justly, these four authors exemplify respectively the differing influences of rhetorical theory, grammatical theory, logical theory, and poetic theory of language on philosophy and theology. Each of these authors stands for a whole tendency to use one or the other of these dialectical instruments, to construct a philosophical or theological system. Thus St. Augustine is constantly influenced in the way he states or solves a theological question by his own bent of mind which had been so disciplined in the rhetorician's concern for the effect of language on the hearts of his audience and the various "figures of speech" and modes of discourse by which this is achieved. At the same time his Christian conviction that God has revealed himself to man both through the Scriptures and through the Creation, and finally through his Son, the Word entering into the created world, gave to this rhetorical point of view a profound metaphysical and theological depth. Similarly St. Anselm, living in a period when the Aristotelian logic was not yet very well known, tended to use the more familiar techniques and categories of grammar to state and solve questions that would be given a logical formulation by Aquinas.

In my opinion the most original and helpful of the sections is that on St. Augustine. It is very revealing to trace, as the author does, the theme of the truthful word and the lie through Augustine's account of his own mental and spiritual development in the *Confessions.* This approach helps to explain the relevance of many otherwise rather puzzling passages in the *Confessions.* We see why Augustine so carefully analyzes the phases of his infancy and boyhood in terms of his learning to talk and his learning to lie. It also casts light on the important role which memory plays in Augustine's thought. Finally, the author helps us to understand how for Augustine human speech must be *redeemed* by the Word of God in order to speak the truth, and even then it must end, after the theological attempt "to express the Inexpressible" in the words of prayer.

The least successful section is that on Thomas Aquinas. I have the impression that the author is uncomforable with Aquinas and does not quite know how to fit him into her scheme. To tell the truth, St. Thomas is too Aristotelian in his method to be reduced to a single mode of discourse,

since it is precisely the Aristotelian method to insist on the multiplicity of modes of discourse and their special functions. Of course, it is correct to say that St. Thomas largely occupies himself with the *logical* approach, but within this he carefully distinguishes *dialectical argumentation* from *demonstration.* It would have been very interesting if the author had examined the interplay of these different modes in St. Thomas's thought.

She centers, instead, on the topic of analogy, which is, of course, of great importance in the *Summa Theologiae.* However, she adopts the view, with which I do not agree, that analogy is a purely logical problem. It would have been more revealing if she had showed how St. Thomas uses the logical theory of analogy as an instrument to develop an ontological theory of the order of knowledge. I found her discussion of the topic neither very clear nor illuminating.

In her view "the principal reason for the inclusion of the proofs [of the existence of God] is didactic; it is to train his students to cope with Thomas's criticism." (p. 196 f.) Is St. Thomas's purpose apologetic? Or is it rather that the *qttinque 'Viae* establish by an *a posteriori* method proper to Aristotelian empiricism the ground for the metaphysics which St. Thomas intends to use as the instrument of his theology? Since throughout the *Summa* St. Thomas uses the basic principle of the identity of essence and existence in God and their distinction in creatures as the very basis for the analogy between creatures and God, he has to establish this principle philosophically. St. Thomas is emphatic *(Summa* I, q. 1, a. *5,* ad £) that sacred doctrine as founded in revelation does not depend *ex necessitate* on philosophy, but it can profitably use it. But if it uses philosophy, its philosophical premises must be established philosophically.

The statement that " epistemologically . . . he holds that all knowledge, with the exception of intuited first principles, enters the mind through the senses," (p. 181) is, I believe, mistaken. It is true that certain modern Thomists believe that St. Thomas holds for some *a priori* element in knowledge. This would, if true, prove that he, like most medieval Aristotelians, was really a Platonist at heart. It seems to me, however, that it is clear enough that for St. Thomas first principles are known by intellectual intuition into sense experience. Aristotle deals quite explicitly with this point in the *Posterior Analytics* and St. Thomas, both in his commentary on this work and in his very frequent use of its doctrine on the principles of demonstration, shows himself Aristotle's convinced disciple.

As a whole, however, this book will open up interesting vistas of research for philosopher, theologian, and literary theorists of language alike. The philosophy of language which occupies such an important position in current philosophy can greatly profit from works of this sort which reveal the historical dimensions of the issues with which it must deal.

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Dominican Self-Appraisal in the Light of the Council. By VALENTINE WALGRAVE, O. P. Chicago: The Priory Press, 1968. Pp. 369 with appendixes. $10.00.

Primarily this is a familial book. The Dominican Order, like all religious families in the Church, is engaged in the work of adaptive renewal. The Order must acknowledge a debt of gratitude to one of its friars, Valentine Walgrave, for having brought to the task of self-evaluation a clarity of vision and the basic erudition requisite to situate the problems which must be resolved if the Order is to continue as a vital force in the life of the Church.

Since it is a familial book, there are many details and applications which, apart from the members of the Order, would be of interest only to those who are irreformably curious. However, the core concept developed by the author is of value not only for all religious who are called to " combine contemplation with apostolic love" *(Vat. Cone.* II, *Perf. Car.,* n. 5) but inferentially to all who seriously seek to orient themselves in relation to the whole of reality.

To acquire an appreciative understanding of reality, the seeker must assume a posture of openness or receptivity much as the craftsman must be sensitive and responsive to the lineaments of his material if he would produce a masterwork. It is the author's thesis that the climate of contemporary Western civilization is inimical to the easy assimilation of the contemplative attitude which he understands as " a psychological predisposition which inclines us to be receptive to the grace of contemplation . . . ." (p. 105)

Two factors operate as obstacles to the acquisition of this spirit. The first is a closed humanism, not yet incorporated into an authentic Christian form, characterized by a " socialization " devoted to involvement for the sake of personal fulfillment which further generates an " horizontalism " that excludes the transcendant. This work of humanization, being committed to temporal values, repudiates the ascetical attitude as an obstacle to spontaneity and accepts only that asceticism connected with service-oriented activity. Further, despite a clear linguistic commitment to eschatology, the movement of humanism for the most part empties the concept of all transterrestrial values.

The second obstacle to the acquisition of the contemplative attitude, one which is prior to and related to the first, is the predominance of the active consciousness, that is, a primary concern with actualization. Modern man is above all else an "achiever," a "realizer" who is attracted not by the transcendental but is challenged to re-create himself and the world in which he lives. Such activism necessarily excludes or makes very difficult the attitude of listening which is the beginning of the dialogue with the transcendant. In a word, the requisite openness to divine reality is viewed

as a passive sterility which makes no efficient contribution to the accomplishment of actualization.

Father Walgrave concludes: "To recover a receptive form of consciousness which is willing to live in silence and awareness of God, we must develop a concept of man that is in complete opposition to a closed form of humanism." (p. He believes that a providential trend is at work in the world which may serve to liberate man and bring him to accept himself as one of" the poor of Yaweh." A recovery of the dialogie sense of contemplation has been manifested in the lives of such influential figures as Dietrich Bonhoeffer, Dag HammerskjOld and Pope John XXIII.

It is the author's unassailable premise that the Dominican concept-the ideal incarnated in Saint Dominic-contains a contemplative dimension that has a value in itself and an ultimate relationship to the apostolic and doctrinal mission. Authenticity demands a practical reaffirmation of this by the Order. The ultimate criterion which must be applied to evaluate experiments engaged in concerning the housekeeping details of the Dominican life-form is neither the norm of efficiency nor that of self-realization but whether or not the process is contributory to the development of the contemplative attitude. If this is assured, all else will follow.

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Miscellanea Andre Combes. Rome: Libreria Editrice della Pont. Universita Lateranense, 1967-1968. I (Pp. 896, L. 4000), II (Pp. *500,* L. 5000), III (Pp. *500,* L. 5000).

Friends and colleagues of Monsignor Andre Combes joined together to offer a massive tribute to him in the form most characteristic of his own career, scholarly writing. The three large volumes of *Miscellanea* honor the man who, after a distinguished scholarly career in his native France, came to the Lateran in Rome at the threshold of its academic renewal, which coincided with the opening of the pontificate of John XXIII. In 1968 he became the founder of the Chair of St. Thomas at the Lateran, with the purpose of recapturing the long history of Thomistic teaching going back to the former Apollinare and of bringing Thomistic thought to bear on the area of contemporary Catholic culture. From this sprang the series "Cathedra Sancti Thomae" (which also includes this *Miscellanea)* and the later "Studi e ricerche sulla rinascita del tomismo." Combes was also the founder of the Institute of Higher Studies of Spirituality, which publishes " Spiritualitas."

A disciple and collaborator of Etienne Gilson, student of the spirituality of Gerson, dedicated follower of St. Therese of Lisieux, lifelong admirer of St. Thomas Aquinas-these various interests among others indicated in the prefatory "Life and Works of Msgr. Andre Combes" are reflected in the sweep of articles relating to every epoch in the life of the Church.

The three volumes are divided into eleven sections beginning with Biblical Themes and ending with Thomism and Modern Science. We can merely list the major contributions which would offer direct interest to Thomists. " Comment Le Premier Moteur Meut L'Univers," by Paul Siwek, S. J. (I, ; " Berenger de Tours dans les ecrits de Saint Thomas d'Aquin," by Godfroid Geenen, 0. P. (II, 43-61); "Un aspect de la notion de verite selon Saint Albert le Grand auteur du ' De Bono,'" by Abbe Francis Ruello (II, 149-160); "Elementi per una dottrina tomistica della partecipazione," by Cornelio Fabro, C. P. S. (II, 163-190); "Animadversiones thomisticae in argumentum ideologicum pro existentia Dei," by Humbertus Degl'Innocenti, 0. P. (II, "S. Tommaso, 'De spiritualibus Creaturis,' art. 10, ad 8," by Msgr. Giorgio Giannim (II, " Significate e valore della IV Via nella Somma Teologica di San Tommaso," by Toshiyuki Miyakawa (II, "La finalita dei miracoli secondo S. Tommaso d'Aquino (Contra Gentes, III, 99) ," by Prof. Vladimiro Boublik (II, "Il pensiero politico di Tommaso d'Aquino," by Prof. Umberto A. Padovani (II, " Due grandi ascesi della carita: S. Tommaso e S. Francesco di Sales," by Prof. Luigi Bogliolo, S.D. B. (II, 479-497); "Marginalia alia storia del Neotomismo," by Clemente Vansteenkiste, 0. P. (III, "Sur un argument de Saint Thomas," by Joseph de Finance, S. J. (III,

This work not only honors an illustrious master of the Lateran University but also offers helpful material to serious students of the sacred sciences.

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The Bond of Marriage. Ed. by WILLIAM W. BASSETT. Notre Dame, Ind.: University of Notre Dame Press, 1968. Pp. *$6.95.*

To appreciate *The Bond of Marriage,* one must first look at this topic in retrospect. To go back to the Fourth Session of Vatican Council II, September *1965,* where we find this topic described as a "bombshell" when it was brought up by the Eastern-rite prelate, Archbishop Elie Zoghbi, who urged that the Church should cast a merciful eye on the plight of husbands and wives who have been abandoned and left to live lives of perpetual continence. " Could not the Church dispense the innocent party

from the bonds of matrimony according to the practice of some Eastern churches? " he declared, emphasizing the fact " that heroic virtue cannot be imposed upon all." The Archbishop's talk stunned most of the prelates present. The *Council Daybook* describes the scene by saying that the "council Fathers listened in earnest attention, but remained stolidly in their seats, and the coffee bars, which usually do a bustling business, were virtually deserted."

After Vatican Council II, in 1967, another "bombshell" hit (the American Catholic Church in the form of *Divorce and Remarriage* (Towards a new Catholic Teaching), by Very Rev. Msgr. Victor J. Pospishil, who maintains, and attempts to substantiate logically, "that the Church possesses the authority to permit the remarriage of all divorced persons. While accepting as self-evident that the institution of marriage was ordained by God to be a permanent, enduring association between man and woman, and *ideally* should last till death of one spouse dissolves it, it is necessary to distinguish two related concepts: permanency and indissolubility."

Monsignor Pospishil maintains that the doctrine of the absolute indissolubility of a consummated sacramental marriage is a part of the ordinary magisterium of the Catholic Church, *but,* nowhere is there an *infallible definition of it,* even thought it is a doctrine *proxima fidei* or at least *certa.* He goes on to say that " for all practical purposes, a Catholic is obliged in his conscience to give his assent to this teaching, but this does not preclude the possibility that such a teaching might be changed; moreover, serious theological research is permitted and its findings are allowed to be published contrary to this teaching."

This second "bombshell" in America had an effect upon many of the members of the Church through the *New York Times, Time* and *Newsweek* magazines, and other periodicals. It stirred up the American hierarchy. Surprisingly, in due time the Conference of American Bishops requested the Canon Law Society of America to do some scholarly research in this field. The Symposium held at Notre Dame on the *Bond of Marriage* was the result. Father William Bassett of Catholic University arranged and directed this symposium and later edited the papers of this symposium in this book, *The Bond of Marriage.* Like its forerunner, *Divorce and Remarriage,* this book is an ecumenical and an interdisciplinary study. It is most timely and apropos to a sick and ailing society. Having interviewed almost 8,000 marriage cases personally, I find this study another honest attempt to find a way to heal and mend a cancerous society in a very sick world.

Regarding absolute indissolubility, proof from Scripture is the weakest link, and Father Dominic Crossan, O. S.M., does not explain the passages of Scripture on divorce but has placed them in perspective by relating them to each other and to the overall teaching of Christ. The conclusion

of his talk explains rather well his views on the matter when he says: "that the categorical imperative of Jesus can never be used as a casuistic absolute but only as a categorical ideal. The New Testament itself recorded two exceptions (Matt. 19, 9; I Cor. 7 : 12-16) as its experience of life progressed. There will be, unfortunately, many more exceptions, many more cases where divorce and remarriage must be sorrowfully accepted as part of our human weakness and our failure to form community before Christ is all in all." The prohibition of Matt. 5 :81-32 against divorce is given a new perspective here, when examined in the light of the Sermon on the Mount.

John Noonan treated a chapter, entitled" Novel 22," of a larger work he has 'in preparation in which he speaks of the liberal legislation of the Christian Emperors from Constantine to Justin II. Their main endeavor was to provide adequate legislation to protect the rights and property of individuals. During this time " there was in Roman divorce law no assertion that Marriage was indissoluble or irrevocable by the law of God, nature, or man; no assertion that marriage was a mystery or sacrament; no assertion that a valid first marriage was any barrier to a valid second marriage. Divorce was regulated not only as a matter of property rights, but the crucial question of remarriage was treated by the law, and where divorce was admitted, remarriage at once or after a period followed as a consequence which the law explicitly allowed." For this reason, the milieu in which we find this epoch of history regarding marriage and divorce is very perplexing to historians. As one author Gaudemet puts it: " the legislation of this period was intended to assure the triumph of the Catholic faith." All of Justinian's work took place within a framework in which he accepted the human malleability of the law on remarriage. This appears in his Novel 22 in which he says: "Of those things which occur among men, whatever is bound is soluble."

Alexander Schmemann offers his views in the line of the categorical imperative of Jesus (similar t.o the views of Crossan) implying that it could never be used as a casuistic absolute but only as a categorical ideal. He feels that the conflict of divorce and remarriage, traditionally held by the Eastern church, is a realistic solution to the problem; the East handles this unique paradox of ideal and reality in a more humane manner. He claims that " within the orthodox tradition there is no such thing as divorce. The Church can no more remove the sacramentality of marriage than she can remove the consecration from the Eucharistic Host. The Church simply grants the right to remarry in certain cases."

" What about the previous marriage? " He goes on to say: " Thl' ontological status of that first marriage is simply never made a matter of question. To ask the question supposes a static view of reality. Within the dynamic action attributed to the Holy Spirit by Orthodox theology, marriage can exist only while people actually live a marriage. If a marriage

is not lived, it is dead. It is nothing. The real problem is not the abstract, (Aristotelian essence that might remain) but what is to be done in pastoral terms with the existing situation. This is where the mechanics of canonical procedure in allowing remarriage are rooted."

Louis and Constance Dupre present their findings of marriage as an institution closely related to the common good. They, however, evaluate uniquely the conflict and tension existing between the institutional and personal aspects of life regarding marriage. Since personal responsibility is greatly emphasized today, they indicate that the common good cannot exist without the inalienable rights and freedom of the individual; they further suggest that justice and rights are the necessary ingredients to make the necessary changes. "Yet when it comes to the actual recognition of these individual rights," they say, "Canon Law remains exactly where it was hundreds of years ago. In cases where an annulment is sought, the presumption is still entirely on the side of the institution, that is, of the existing contract .... In the Pauline privilege, for centuries (even today) the Church has recognized the right of the individual over the institution with respect to the full exercise of his supernatural gifts." Could not the Church extend the application of this same principle to other deserving cases? The Dupres cannot understand why the rights of the individual must be placed *secondary* to the maintenance of the institution. "What does the inalienable right to marital fulfillment mean when the marital relation is invariably subordinated to the institution contract, however weak the grounds are which support the contract?" They answer this question by eliciting help from Father Schillebeeckx who, in his book on marriage, justifies the Pauline Privilege by declaring the communion in faith an essential element of Christian marriage. In other words, for Schillebeeckx, the Pauline Privilege is merely the acceptance of the self-dissolution of marriage in the interest of the baptized partner's life of faith. Yet, no matter how important the elements of faith may be to a Christian marriage, other elements (e. g., prolonged adultery which strikes at the heart of the marital relationship) are even more essential to marriage itself. Therefore, may we not apply to fidelity what Schillebeekx says about faith, namely, that it forms such an indispensable element in the marital relationship that without it this relationship practically ceases to exist?

Marvin Sussman and John Higgins discuss the sociological and psychological problems of matrimony respectively. Marriage is viewed psychologically with the contemporary situation as a continuous process with vicissitudes, aiming toward a state of mutual integration. Because of the difficulties and problems surrounding the married life, they present some ways and means of solving them.

William Bassett's topic, " The Marriage of Christians " *Valid Contract, Valid Sacrament?,* comprises two important questions. He develops his thesis by the traditional canonical position regarding the juridic nature of

marriage and its relationship with the Church. Later he asks the question *why* and *how* did the Church ever become involved in adjudicating the validity or invalidity of marriage. It is possible, he answers, that " in probing at the deepest level the rationale for the practice that may have arisen from the exigencies of historical circumstances" it continues in our days at variance with other kinds of religious experience. Instead of " Go (ing) teach all nations," the Church is trapped in a net of its own making through the paradox that underlies the procedural impasse of the present day due to that extremely tight and intricate system of procedure. And how did the legal procedure come about? It has been elaborated from deductive principles derived from legal meaning of consent to a contractual exchange of rights and duties.

Bassett asks some more very interesting questions. For example, "If the sacrament of matrimony implies also a kind of contract, does it follow necessarily that the validly given consent to marry by two baptized persons must always be sacramental? Must the marriage of two baptized people be both sacrament and contract? Furthermore, must the relationship of the Church to the sacrament of matrimony find its disciplinary expression only within the logic of contractual law?" In answer to such questions he indicates that we must probe more deeply into two specific areas of this position: the exclusive competency of the Church over the marriages of the baptized and the meaning of the contractual theory of marriage. He then develops this historically.

Bassett further elucidates on Canon 1118 which states: The marriage of two validly baptized persons is termed a sacramental marriage *(matrimonium ratum)* and if the conjugal act has been completed, marriage cannot be dissolved by the Church nor by any cause save death. This is the law of the Church today. But does the Church have power from Christ, a vicarious power, to dissolve such a marriage? Bassett refers to W. R. O'Connor who says: " There is nowhere in the Gospels an absolute prohibition of all dissolubility, extrinsic as well as intrinsic, for all cases of marriage." O'Connor also found that there is nothing in the New Testament which would justify the distinction between *nonsacramental* and *nonconsummated sacramental marriages,* for which the Church grants divorce, and the sacramental consummated marriages. Since we must assume that the Church coulil not have erred in dissolving the former ones by assuming a power not explicitly mentioned in Scripture, it is inferred that she possesses the same power in respect to all marriages. Other studies have also concluded that the New Testament exclusion of the dissolution of marriage could at the most establish a *moral ideal,* but there was no intention of formulating a legal norm.

Furthermore, " from principles of the present law there is no intrinsic reason to prohibit dispensation from divine law as such. But, by vicarious power, bishops now dispense vows (Canon 1313). Dispensation from a vow

is certainly not a dispensation from merely ecclesiastical law. This involves a relationship to God, which is a divine law. Pope Gregory XIII in the constitution *Populis* gave Ordinaries, pastors, and Jesuit confessors the faculty to dispense marriages contracted in infidelity, so that one partner could remarry after baptism in the Church without the necessity of interpolating the former spouse. This delegation of authority certainly extends beyond the limits of the Pauline privilege. Thus," says Bassett, " there seems to be no intrinsic reason to deny the ability to dispense nor the delegability of such power to bishops."

Traditional canonical theory has attached sacramentality to the ratification of marriage and indissolubility to a very narrow biological understanding of consummation. Moreover, to accept the simple equation of contract-sacrament is to accept only one way-a very narrow way-of understanding sacramentality and marriage. An examination of the canonical tradition and practice of the past few centuries on the practical and positive level gives ample reason to question the assumptions upon which they are based. From what is said here, the Church seems to be a stumbling block to many morally crippled Christians in the world today. Marriage is to be a lasting convenant of love proven in enduring fidelity; it is the sign of that relationship that exists between Christ and the Church as expressed in *The Constitution on the Church and the Modem World.*

In conclusion, we can ask the question: On what grounds should decisions of nullity be based to be most responsive to the truth of this greatly complex human and sacred relationship? Surely it can be said that marriage is more than consent, more than a moment of commitment, a happening that marks only the beginning, the "matrimonium in fieri." A marriage is more than a valid contract of marriage. Thus decisions must look beyond the moment and conditions of consent toward an appraisal of married life and love in continuity. Even St. Augustine avoided an equation of marriage with either consent or contract, as this was understood in Roman law of his day. In Scripture marriage reflects a *covenant* of life with life. Marital affection in pre-Tridentine canonists is what characterized both the consent and the union of husband and wife. Consent to marriage is much more than consent to those acts which are united to reproduction. Marriage involves the deepest kind of commitment. Unfortunately, the exigencies of proof confine the use of marital affection in judicial procedure.

What is meant by saying that marriage is a " sacrament "? History of theology suggests that the awareness of the sacramentality of marriage emerged only gradually. As a result marriage still remains one of the most difficult of sacramental realities to grasp.

In this section dealing with the sacramentality of marriage Father Bassett entertains some fine questions such as: Where is the sacramental reality in marriage located? When one speaks of the " sacrament " of

marriage, to what exactly is he referring? If it is reality, in what does this reality consist? Is sacramentality located in the religious character of the marital " vows "? If one suggests that the sacramentality of marriage consists in its having been instituted by Christ, then further questions must be asked to avoid begging the issue. If Christ " instituted " marriage as a sacrament, what precisely did He effect in doing so? In what does sacramental reality consist? It cannot be an absolute degree of indissolubility, because unconsummated "sacramental" marriages are dissolved. So what is it? The judicial process, as a human means for arriving at truth, always falls short in its approximation of reality. This essential imperfection of human law and human judgment should be plainly acknowledged in canonical procedure to temper the meaning of moral ceritude, and in many cases even to alter the object of decision itself. Marriage as a human reality cannot be completed in a single moment of time. Indeed marriage is a state of life and a permanent sacrament. The difficulty is in the current canonical practice in the persistent determination to fix the fullness of sign and sacramentality upon a moment of consent. Fixation upon particular moments to discover when the sacrament comes into being is a judicial compulsion. The static and departmentalized, however, is but a single mode of comprehension of the dynamic processes of life. Bassett holds that " a sacramentalized way of life rings a truer note than a sacramentalized contract for the meaning of marriage."

The *Bond of Marriage* is a compilation of talks representing the serious deliberations of research scholars involved in the pursuit of the best principles of pastoral care for the common good regarding the marriage of Christians " in the light of the Gospel and of human experience " *(Pastoral Constitution on the Church in the Modern World).* The value or ideal of the permanence of marriage is not challenged here; it merely considers the significance of the bond from various aspects in order to evaluate better the canonical discipline surrounding it in the Church today. It points out how marriage is closely interwoven into the strands of human life, and it assumes with the changes of history and culture different modes of form and fulfillment, while at the same time there endures a constancy of ideal.

In its evaluation it looks into the moral theology of the past, which deals with states of life, of officers, canon law of debts and obligations . . . analyzing static categories . . . the contract, confining the framework of evaluation to lines of contract. Marriage is much more than this. Marriage is dynamic, evolving, a lived relationship of persons. There is no answer to the question of what marriage really means. For society and its legal opposition, it means one thing; for the Church, it means another; for the husband and wife, yet a third. Marriage enables sexuality to become a catalyst of human personality. It is the normal and natural ambit of self-realization. Marriage is an image, an icon of the kingdom of God. Thus it is holy and a sacrament.

But to speak with conviction about the permanence of the bond of marriage, however, does not exhaust its meaning nor preclude the possibility of relaxation of ecclesiastical law surrounding it. Church law and discipline are largely a human response to a human need. w·e know that attitudes are derived from cultural and historical circumstances which find their way into the making of law. Thus canon law is derivative and dependent. Therefore it is a practical instrument for the good of individuals and the common good, a prudential measure that takes its sanctity from the purpose it serves and fidelity to truth it reflects. But canon law cannot mirror reality perfectly. As society evolves and develops, the principles reflected in canon law must be examined again and again to see if they come up to par. This age definitely is the time for such re-examination and revaluation because our present canon law rests very heavily upon the foundation of post-Tridentine theology, in terms of Aristotelian science and method, marked by the certainty, necessity and universality of the world-view that is so little shared by men today. The handwriting is on the wall. The Decrees of Vatican II contain the necessary ingredients for updating, because they speak of an imperative to renew the pastoral ministry by building a new law on a much better vision of law, a new vision.

Why a new vision? Here in our own country, thousands upon thousands of souls cease to share the communion of their Church because they cannot due to matrimonial difficulties hinging upon the permanency of marriage. In many countries of Europe, as many as 70% of mixed marriages are performed outside the Church, and many who do this, leave the Church. Marriage failures are many and frequent, so much so that the Church with its system cannot cope with the situation adequately.

Can the Church change its basic laws of marriage so that the evangelical mjunction concerning the permanence of marriage can be observed as an *ideal* rather than as a legal absolute? Should this be done? The very importance of marriage for men and the tragedy of its failure demand an unflagging pursuit of the best principles of pastoral care for the greatest good, supported by faith and reason.

With all due respect to the teaching of the Church, we all know that our present structure of dogma, moral and canon law does not contain the last word to this honest question. The talks of the Symposium contained in *The Bond of Marriage* began at the bottom; they began with the New Testament discussing the first meaning of the permanence of marriage in that primal source. Historically speaking, the first few centuries give us very little to work with, but the legislation of the early Christian emperors, when taken together with the ancient and canonical traditions of the East. gives us much food for thought.

Today the notion of the common good is identified with the good of persons, not above or beyond them. Pope Paul VI noted in his first encyclical letter *Ecclesiam Suam* that for Church and Society this is the

thinking of man in a new way, and in a new way also of man's life in common. What does this understanding of the common good now indicate for canonical reform? There is a theory that a change in ecclesiastical law would set off a chaotic chain reaction of divorces; however, the canonical reform necessary to protect the innocent few need not be prejudicial to the attitude of the majority. This is exactly what Popes Gregory IX and Paul VI are against, if we read them correctly. The common good is their goal. Ours should be the same.

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Absolutely Null and Utterly Void: The Papal Condemnation of Anglican 01·ders, 1896. By JoHN JAY HuGHES. Washington: Corpus Books, 1968. Pp. 348. $7.95.

The Church of England-to alter Sir Winston Churchill's famous comment on the Kremlin-is a theological enigma within a paradox. When it finally emerged from the Elizabethan Settlement, it retained much of its medieval constitution and found itself in possession of a version of the Book of Common Prayer which enshrined in splendid English, and unresolved juxtaposition, various and diverse theological elements drawn from patristic, medieval, Lutheran and Zwinglian sources. Six different versions, if one counts those of 1604 and 1637, of this remarkable document have, as the Anglican scholar Gregory Dix remarked, proven to be " incompetent to provide for the Church of England a tolerable method of doing that which is the very center of its life for every Christian Church."

Father John Jay Hughes, the author of what is the most recent in the very long list of works dealing with the enigmatic and paradoxical problems associated with Anglican orders, is evidently highly qualified for the exploration of just such problems. He comes from a distinguished clerical family; both his father and his grandfather were prominent among the clergy of the Protestant Episcopal Church in the United States of America. He himself was ordained a priest in that body in 1954. Six years later, however, he became a Roman Catholic and a teacher of theology in Germany where, in 1965, he was invited by the Bishop of MUnster to begin work for the doctorate in theology at the University of MUnster. Three years later he achieved what may very well be the first thing of its kind since the Reformation: he was conditionally ordained to the Roman Catholic priesthood in the diocese of MUnster.

This event, it should be observed, has no direct and immediate bearing

upon the question of the validity of Anglican orders. It was technically possible because an Old Catholic bishop was involved in the episcopal succession of the Protestant Episcopal bishop from whom Father Hughes had received his Anglican ordination in 1954. But it does put the author of *Absolutely Null and Utterly Void* in an unusual, if not enigmatic, position in current ecclesiastical life, just as it affords him a somewhat unique perspective with which to view the questions upon which he has chosen to write.

Cardinal Newman, who knew more than a little about the matter, is quoted by Father Hughes as follows:

> The enquiry into Anglican Orders has ever been to me of the class which I must call dreary; for it is dreary surely to have to grope into the minute intricate passages and obscure corners of past occurrences in order to ascertain whether this man was ever consecrated, or that man used a valid form, or a certain sacramental intention came up to the mark, or the report, or register of an ecclesiastical act can be cleared of suspicion. On giving myself to consider the question, I have never been able to arrive at anything higher than a probable conclusion, which is most unsatisfactory except to antiquarians, who delight in researches into the past for their own sake. (p. 276)

Father Hughes has done more groping " into the minute intricate passages and obscure corners of past occurences " than many who have ventured into the incredibly complex undertaking of dealing with the enigmas and paradoxes of Anglican ordinations. His present volume is primarily concerned with the history of Leo XIII's judicial sentence in the bull *Apostolicae Curae*, which declared on September 13, 1896, " . . . ordinations carried out according to the Anglican rite have been and are absolutely null and utterly void." Father Hughes, quite properly, does not attempt to settle the question of validity, although his own views are not. altogether omitted. And it is clear that he intends to develop them in a theological work which we may await with some interest.

The present volume opens with a clear enough exposition of the origin of the Anglican hierarchy in the sixteenth century and disposes of the corpse of the "Nag's Head Fable," together with the remains of other legends, in a thoroughly decent fashion. Some might argue, however, that he fails to dispose of what Sir Maurice Powicke says in *The Reformation in England:* " The one definite thing which can be said about the Reformation in England is that it was an act of State. The King became the head of the Church, the King in Parliament gave a sanction to the revised organization, formularies, liturgy, and even in some degree to the doctrine of the Church."

But this is, perhaps, not the kind of thing with which Father Hughes is especially concerned. His own original historical research, which is not without importance, centers around the very unhappy, if not dreary, tale of the attempt by Charles Lindley, the second Viscount Halifax and the Abbe Etienne Fernand Portal to promote reunion between Rome and

Canterbury through joint theological discussions which were to begin with the question of Anglican orders.

The narrative is well documented; yet this is a book which is also interestingly dramatic in its presentation. In this respect it differs from the learned style of what remains as the most complete scholarly study of the subject of Anglican orders in modern times-Father Francis Clark's *Anglican Orders and Defect of Intention* (1956).

Father Hughes presents colorful, witty, and occasionally penetrating portraits of his protagonists and antagonists. He has an evident feeling for the drama of ecclesiastical intrigue and an equally evident capacity for bringing back the atmosphere of the late Victorian world with a sense of immediacy. The reader is led from the first meeting of Halifax and Portal on the island of Madeira in the winter of 1889-90 through the development of their campaign for reunion between Rome and Canterbury and on to the unfortunate proposal that a series of theological discussions should begin with the question of the validity of Anglican orders. This idea, urged by Portal and strengthened by the published opinion of the distinguished ecclesiastical historian Duchesne that Anglican orders might be valid, was pressed by Halifax in Rome. Opposition to the Anglican claims arose, as might have been expected, most strongly among English Roman Catholics. Consequently, the antagonists opposing Halifax and Portal in Father Hughes's version of the drama were: Cardinal Vaughan, the Archbishop of Westminster; Dom Francis Aidan Gasquet, who had gained some fame as a writer of Roman Catholic historical apologetics; and his scholarly friend, Edmund Bishop.

The activities of Halifax, Portal. and their friends and opponents stirred up a great deal of agitated discussion over a subject which had not been the center of so much attention since the end of the seventeenth century. Portal published a provocative article in *La Science Catholique* in 1893; the Anglican scholars, E. Denny and T. A. Lacey, produced a Latin defense of English ordinations, *De Hierarchia Anglicana*, in 1895; and a whole flood of other publications, marked by various degrees of learning and acerbity, swirled through the theological world of Britain and the Continent. Meanwhile, Halifax and Portal managed to visit the Archbishops of York and Canterbury; they were also individually received in private audience by Leo XIII, who obtained contradictory pictures of the Church of England from almost everyone whom he consulted. His Cardinal Secretary of State, Rampolla, was clearly impressed by the High Church version; while his protege, Mgr. Raphael Merry del Val, Dom Gasquet, and Cardinal Vaughan were zealously at work persuading the aged pontiff of quite different interpretations of the truth about Anglicanism.

Certainly, the atmosphere in England itself was really anything but ecumenical. The Roman Catholic hierarchy had been reconstituted in 1850, which many regarded as a threat and an affront; the most articulate

English Roman Catholics were converts, who, like Cardinal Manning, felt little sympathy for the Church of England, some of whose clergy had been subjected to legal penalties for their efforts to restore Eucharistic vestments and devotion. Indeed, Manning had even been somewhat suspicious of his fellow-convert, Newman, and had written to Rome: "I see much danger of an English Catholicism of which Newman is the highest type. It is the old Anglican, patristic, literary Oxford tone transplanted into the Church. . . . In one word, it is worldly Catholicism, and it will have the worldly on its side." (See J. J. O'Connor, *The Catholic Revival in England,* N.Y., 194fl).

Bitter religious controversy had, in fact, marked the life of much of the Church of England during the whole Victorian time. As Margaret Maison remarks in *The Victorian Vision* (1961):

> If England escaped the horrors of a revolution in the Victorian age her National Church did not. The history of the Church of England during this time is a stirring record of warfare, struggle, persecution, agonized secession and fiercest conflict, differences of religious belief causing hostilities not merely confined to verbal clashes, lawsuits and imprisonments but extended to the level of actual physical fighting.

As the Reverend Thomas Mozley, who was Newman's brother-in-law, remarked in his reminiscences, " The Church of England was one vast arena of controversy. Ten thousand popes ... laid down the law and demanded instant obedience."

Father Hughes establishes the fact that Halifax, who was the lay spokesman for the "highest" and the High Church minority, had an ecumenical intention of the noblest kind in his efforts to obtain a favorable judgment from Rome on Anglican orders. But it was inevitable, under the circumstances, that this effort would be misinterpreted both in Westiminster and Canterbury, to say nothing of Rome itself, where England has never been the Vatican's best developed area of informed judgments. Consequently, one feels that whatever may have been Gasquet's deficiences as an historian, he was right when he told Halifax in Rome that it was utterly futile to expect the Holy See to affirm the validity of Anglican ordinations. In fact, as one reads Father Hughes's account, one cannot quite escape the impression of Halifax, with all his real piety and romantic attachment to his personal vision of Anglicanism, as another man from La Mancha-a melancholy and devoted self-appointed knight errant who was born out of due time.

As a result of Portal's work with Halifax, the ground was laid for the appearance of an ecumenical journal, *Revue Anglo-Romaine,* the first number of which appeared in Paris in December, 1895. This publication reflected Halifax's desire for joint theological discussions conducted in an irenic spirit. But Halifax had emphasized the idea that such discussions

ought to beg\.• with the question of orders, and beiore the controversial *Revue* began its publication a movement was well underway to clear up what Merry del Val described as the " confusion " being created by all the talk and writing on the question of Anglican orders. The outcome of this was that Cardinal Vaughan called for the fullest investigation of the question and was able to announce in September, 1895 that a special commission would be appointed at Rome to investigate the validity of Anglican orders.

Father Hughes devotes much of his book to an attempt to reconstruct the narrative of the work of this commission, which met for the first time on March 9!4, 1896. Its proceedings were secret, and the record of them regrettably remains so to this day. The historian is, consequently, deprived of his primary source and compelled to depend upon diaries, letters, memoirs and recollections of those who were involved. On the evidence which he has been able to present, Father Hughes finds that the twelve meetings of the commission-at none of which any Anglicans were permitted to present a case-gave the subject something less than the careful analysis it deserved. Yet, in spite of a massive *votum* presented by Cardinal Vaughan's representatives and the absence of any fully qualified spokesmen for the Anglican side, the vote, as reported by Merry del Val in a letter written in 1910, was not exactly overwhelming. According to his best recollection, there were only four members of the commission who voted for invalidity, and they were known to represent this negative opinion before the sessions considered the case. Two, or possibly three, of the eight members voted for validity.

The cardinals of the Holy Office met under the personal presidency of Leo XIII on July 16, 1896 and concluded that the question of the validity of Anglican orders had previously been submitted to the Holy See in individual cases in 1684 and 1708 and had been fully determined in the negative. It was further concluded that the enquiry of the recent commission had shown the previous judgment to be correct. The drafting and promulgation of *Apostolicae Curae* followed.

Father Hughes rightly insists that, " The consideration of the Bull's theological arguments lies beyond the scope of this book." Nonetheless he concludes that there may well be reason not only to re-examine these arguments, which have to do with defect of intention and form, but also to re-evaluate the historical precedents of the cases of 1684 and 1708.

But there is a crucial point which would appear to be a serious difficulty, at least for many Roman Catholic theologians; and it does not have to do with the liturgical history of ordinals nor with the intentions of individual bishops. As Father Hughes himself points out, ". . . apostolic succession means more than the mere maintenance of an intact series of episcopal consecrations. There may be an essential change at some point . . . which means that after this point the consecrations do not have the

same theological significance they had before." (p. And this may very well be what has happened in the case of Anglican orders. To quote Father Hughes again: " There can be little doubt, after Clark's work, that the English reformers rejected contemporary notions of 'sacrificing priesthood'." (p. 292) In short, the Church of England rejected the contemporary doctrine of the Church of Rome and profoundly altered the significance of what had been the meaning of priesthood for English Roman Catholics for generations.

It is, of course, not impossible that future theological developments may so alter Roman Catholic teaching about the priesthood that the Anglican departure from what was currently the Catholic position in the sixteenth century may be re-examined and seen in a more favorable light. But it does not seem that such a development is very likely to take place in the immediate future. Meanwhile, it may be noted that the Anglican world has its own problems about how to treat the orders of ministers of non-episcopal churches. In the case of the Church of South India, for example, there is some reason to believe that the concept of apostolic succession among Anglicans was, to say the least, compromised. In any event, it is quite possible that, as Anglicans continue to seek a basis of organic unity with non-episcopal denominations, they may move even further away from the Roman Catholic view of orders than did their sixteenth-century ancestors. There is always the extreme position of men who, like Bishop Pike, believe that all orders are " partially invalid " in a divided Christendom, which does seem a bit like talking about eggs that are "partially fresh." This view may yet prevail if Anglican ecumenism continues to take the direction of the South Indian" merger," in which Anglicans joined with and initially recognized the orders of non-episcopal denominations, even though provisions were made for an episcopate to be part of the future life of the new church in that part of the world.

One closes Father Hughes's book with the feeling that, however noble their motives, Lord Halifax and the Abbe Portal unwittingly performed a disservice to the cause of Roman-Anglican relations by pressing the wrong subject at the wrong time. The 1896 condemnation really could not have been otherwise under the circumstances of the period.

The question of Anglican orders is not really about the problem of whether there was a time when certain " medieval " ideas were not a part of the theology of the rite. The problem is that of authority. When the Roman Church states that a valid ordinal must contain certain forms and be governed by certain intentions, it claims to be stating what has always been the case; for teaching that was at one time not explicit, nor universally understood, is regarded as nevertheless something which was always implicit when such teaching is formulated and stated by the *magisterium* of the Church. Consequently, those who admit the authority of Rome and who look to its approved teaching to provide sure guidance in matters of

sacramental theology may take the view that the issues suggested by Father Hughes's book are not really about the question of Anglican ordinations but fundamentally about the authority of the papacy itself.

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Psychotherapy and Religion. By JosEF RuDIN. Translated by Elisabeth Reinecke and Paul C. Bailey, C. S.C. Notre Dame: University of Notre Dame Press, 1968. Pp. 9.40. $5.95.

Rudin states in the Foreword that his book is not intended primarily for a few professionals but is aimed toward a larger group who wonder about the relation between psychology and theology. This book is a collection of essays on selected topics more or less in psychotherapy and religion. Although Rudin promises " a conversation seeking clarity " between these two areas, the book tends to be a series of psychological and theological monologues rather than a dialogue.

Part one is an explication of certain fundamental views of man. An analysis of" The Normal Man" is so simple that it tends to be simplistic. The author does not explicate his basic assumptions, succinctly define terms, or present original thinking. The following four chapters deal with soul-anxiety, development, freedom, and personal life. Although Rudin tries to point to the value of " soul anxiety," he ultimately considers anxiety in terms of problem-centeredness rather than growth-centeredness. Furthermore, Rudin does not give the structure and dynamics of this basic anxiety. The essay on development is simple and clear. Although the analysis of unauthentic modes of identification are interesting, it lacks in originality and synthesis. Furthermore, religion, as in most of the book, is used too much as a *deus ex machina* instead of as an integral part of the thesis.

The analysis of freedom is one of the most extensive and creative efforts of the author. The main point-freedom is the goal of therapy-is well taken particularly in the total context of the book. Rudin tries to explicate the emergent and transcendent dimensions of freedom which are considered to be necessary for authentic spirituality. Finally, the author presents views on personal life and on being a person. This presentation tends to be incoherent and unclear; for instance, the term person is used with various meanings.

The purpose of part two is to investigate authentic and unauthentic

religious experience in light of the preceding and new psychological and theological insights. In chapter six, Rudin gives a clear account of the conscious and unconscious factors in religion. He rejects the Freudian theory of religion and begins to consider religion in terms of Jungian thinking. The following chapter is a reflection of Jung's book, *Answer to Job*. Rudin is at his most passionate and scholarly best when he interacts with Jung. Under the influence of Jung, Rudin almost transcends the projection theory of religion and begins to consider religious experience as a function of a fundamental structure of man. Unfortunately, Rudin does not sufficiently develop this theme. In fact, in the last chapter on prayer Rudin admits the critical importance of distinguishing between God as a wish-fulfilling projection and as a transcendent experience. However, he says that this topic seems to be inaccessible to psychological investigation. This admission is perhaps the most serious deficit of the book, for psychotherapy is little benefit to religion without it being able to differentiate religion as an unhealthy illusion or as a legitimate transcendent experience. Fortunately, there are a number of psychological approaches to this apparent dilemma. For instance, the consequent changes in behavior differ in the authentic and unauthentic religious experience. Or, religion as an illusion lacks certain psychodynamics which the authentic religious experience has. These and other insights into the religious experience are available to the psychologist as psychologist.

In the final chapters, Rudin gives a good and readable account of the "neuroticized God-image." His analysis of unhealthy conceptions of God are primarily in terms of a Jungian framework and are rather original. Rudin also gives some concrete advice to the person who is involved in the areas of psychotherapy and spiritual guidance. Although the presentation lacks originality and depth, he delineates their common and different grounds in a simple and clear way. Both these approaches-psychotherapy and spiritual guidance-are somewhat different ways to "help man to form his life integrally and meaningfully and to lead it beyond relativities toward an absolute" (Rudin, 1968, p. 201). It is pointed out that Rudin considers psychiatry and psychotherapy quite differently than most professionals in the United States. He sees the domain of the psychiatrist to be psychoses, while psychotherapy is the treatment of the neuroses. Consequently, Rudin does not mention the fruitful and fascinating realm of psychosis and the religious experience.

Psychotherapy and Religion lacks in unity, coherency, and conciseness, and it tends to regress into the psychologism or theologism it tries to transcend. On the other hand, there are simple and refreshing analyses of psychopathology and some attempts at original thinking. Its greatest import is the use of Jungian thinking in the analysis of religion. Although only in its seminal stages, the proposal that God is dynamically and structurally related to man has much heuristic value.

At worst, *Psychotherapy and Religion* is a psychotheological potpourri, and at best it points out new horizons in psychotheological investigation.

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Le Retour a saint Thomas, a-t-il encore un sens aujourd'hui? By FERNAND VAN S'l'EENBERGHEN. Conference Albert-le-Grand 1967. Montreal: Institut d':Etudes :Medievales, 1967. 61 pp.

Philosophy in the 20th Century: Catholic and Christian. Ed. by GEORGE F. McLEAN, 0. M. I. Q vols. New York: Frederick Unga.r Publishing Co., 1968. Vol. I. An Annotated Bibliog.raphy of Philosophy in Catholic Thought 1900-1964, xiv + 371 pp. $9.00. Vol-. II. A Bibliography of Christian Philosophy and Contemporary Issues. viii + 31Q pp. $7.50. Set *$15.00.*

The seventeenth in its series of public lectu.res, this brief though magisterial work of Fe.rnand van Steenberghen raises a question that touches the very life of the Institut d'Etudes Medievales, viz., whether continued studies of medieval thinkers like St. Thomas Aquinas make any sense today? The answer provided by the celebrated canon of Louvain to his crucial question, happily, is affirmative. It cannot help but encourage medievalists to continue their patient researches on Aquinas and his intellectual milieu, assured that their work is bearing fruit both in the Church and in the intellectual world of the late 1960's.

To make his point, van Steenberghen uses the simple device of retreating back into history to sketch the crisis that was facing the Church at the beginning of the nineteenth centu.ry. Immediately following the French Revolution and the Napoleonic wars, with strong and influential currents in philosophy-stirred up by the Encyclopedists in France, by Kantians in Germany, and by Humeans in England-sweeping away the foundations of metaphysics and theology, the intellectual futu.re of Catholicism looked bleak indeed. Those who, at the time, might have wished to write a blueprint for Catholic intellectual life in the nineteenth century could offer a simple plan. What they really needed was a true philosophy, not a disguised theology; they needed a flexible instrument for dialogue with their contemporaries, a living synthesis in harmony with mode.rn science; and they needed a teacher who would be commonly accepted in the Church,

one around whom all segments of a scattering flock could rally. Actually, such a plan never materialized. After several abortive starts, Catholic intellectuals finally centered on this man with his system of thought that lacked *all* of the desired characteristics. Paradoxically, very little of his philosophy was originally his own, and what could be identified as such derived largely from his Catholic faith; far from being up-to-date and alive, his thought was medieval and scholastic, couched in the dead, sterotyped language of the Schools; and rather than being a common champion, he had always been at the height of controversy, rejected by many both during his lifetime and after his death.

Unlikely though Thomism must have appeared as the Catholic answer in the nineteenth century, van Steenberghen argues, the fact is that it provided the intellectual basis for meeting successfully the challenges of rationalism, idealism and empiricism and for opening up dialogue with the new philosophies of the twentieth century. If studied and developed intelligently, he concludes, Thomism is far from dead, and it may well prove to be the Church's most valuable asset in the years ahead. There have been mistakes in the past, of course-and here van Steenberghen elaborates on some of the celebrated controversies between Louvain and Rome, generally holding (in vindication of Louvain) that a liberally progressive Thomism should have been encouraged long ago, in place of the stultifying conservatism that was officially imposed by the Roman Curia. Despite these mistakes, however, he acknowledges latent strengths in Aquinas's teaching that are still to be exploited. Among these he lists its historical value, as solidly anchored in the Church's tradition; its philosophical value, as being able to transcend the details of history and philology and arrive at a type of knowledge that is stable and enduring; and its theological value, as being well adapted for synthesizing new discoveries in theological sources, particularly in the biblical sciences, in a coherent and meaningful way.

In describing the phenomenal growth of Thomistic studies since Leo XIII's *Aeterni Patris* (August 4, 1879), van Steenberghen notes that a Thomistic bibliography of 1920 lists some 2200 titles written between 1800 and 1920. Within the next twenty years, in one-sixth the time, he points out that this number was more than doubled, to some 4800 titles by 1940, and that at present it has almost octupled, to some *15000* titles by 1967. His figures are based on European bibliographies, but a corraboration of his findings will readily be seen in the two volumes of American bibliography recently edited by George F. McLean, which can conveniently be reviewed in the context of van Steenberghen's study.

The first of these volumes is an annotated bibliography of the most significant books on Catholic philosophy that have appeared in English between 1900 and 1964. The listing includes about 1800 titles, and comprises, apart from the bibliographical data, a succinct description and

evaluation, a grading on the level of difficulty, and an indication of the significant reviews of the work. The evaluations have been checked by a large number of professors in Catholic colleges and universities, and they are remarkably objective. Since this volume includes textbooks and scholarly studies, it is an invaluable teaching aid as well as a reliable reference work.

The second volume is wider in scope than the first, since it includes articles as well as books and is not restricted to English titles. It includes about 4000 entries, divided according to schools and themes such as man, person, love, freedom, culture, value, ethics, language, law, and God. Many of the titles listed have appeared within the last thirty years, although more recent studies are in the majority. There are no annotations, because of the sheer volume of the materials listed; this reviewer can attest, however, that all of the works are significant in their fields. At the end of the volume is a complete listing of all doctoral dissertations in philosophy presented in Catholic universities and pontifical faculties in the U. S. and Canada.

Father McLean can only be thanked, and congratulated, for the patient years of research that went into the preparation of these valuable reference tools. They attest to the remarkable productivity of Catholic scholars in current philosophical movements. And even a casual perusal of both volumes will reveal the extent of both Catholic and Christian interest in, and indebtedness to, the thought of St. Thomas Aquinas.

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Christian Spirituality East and West. By JORDAN AUMANN, O. P., THOMAS HOPKO, DONALD G. BLOESCH. Chicago: The Priory Press, 1968. Pp. *$5.95.*

This slim volume is the third in a series of special lectures delivered at the Institute of Spirituality conducted by the Aquinas Institute of Philosophy and Theology, River Forest, Illinois. The lectures published here were delivered during the 1967 session; a fourth volume, *The Church and the World,* was in preparation when this book went to press.

In the opening essay, "Trends in Catholic Spirituality," Jordan Aumann traces the history of Christian Spirituality in eighty-nine pages, the last ten of which are devoted to "Contemporary Catholic Spirituality." It a good, pedestrian introductory approach to a course in the history of spiritual theology and depends on the usual well-known sources, such as

Pourrat and Leclercq. One notion which is constant throughout is the use of the label " monastic " to denominate post-Constantinian spirituality, a popular convenience which surely overlooks the predominance of apostolic activity in the Church of the fourth and fifth centuries. The best and most original section is that devoted to contemporary trends. However, like so many other glances at the future, it has a slightly triumphal sound, as if the oversights of the past are certain to be corrected in the new age on which the pilgrim Church is about to enter. On page 90, for example, the impression is given that the monastic spirituality which " always prevailed " is finally and forever done away with. Following this, the anticipated sanctification of priests through the works of their ministry (apparently *alone)* sounds most promising indeed. Enthusiasm for what the author calls " the contemporary spirituality of involvement " inspires him to reflections which call for much further explanation. " Sanctity," he says, " is of the supernatural order of grace and the infused virtues, but the achieving of it by the modern Christian demands that he first achieve maturity as a human person and cultivate the natural virtues." (p. 87) One wonders how far this is to go and whether Donald Bloesch in the third section is not closer to the reality when he cites what he calls the " evangelical view " that " grace does not build upon nature: rather it brings to men a new nature." (p. 170) Does sanctity lie beyond the compulsive neurotic? The insistence that the Christian "first attain maturity as a human person " seems to place a dangerous importance on the human contribution to sanctity. Is the so-called "narcissistic spirituality " to be replaced by a spirituality of superman and the examination of conscience to be revised by way of manuals of mental hygiene?

The second essay, "Orthodox Spirituality," by Thomas Hopko, is disappointing. While it discusses a number of never-questioned fundamentals of the spiritual life, the promise of the title seems unfulfilled. No history of Eastern spirituality is offered, and no features characteristic of Orthodox practice emerge from the study. There are three sub-titles: Theology and Spiritual Life; Liturgy and Spiritual Life; Prayer and Spiritual Life. In the third section the author lays some stress on the lack of any appeal to the imagination in the Eastern Church despite its colorful liturgy, but, aside from this consideration and the relatively copious bibliography of Orthodox works, the study might be entitled "Catholic Spirituality." The author's few pages (150-54) on the "Jesus prayer" are enlightening and inspiring but hardly especially Eastern. He speaks of a " veritable technology of the inner spiritual activity of the individual soul " (p. 154), but he nowhere presents an Orthodox view of it. A reviewer should not criticise a work that is not there, but he may be excused for expecting what the title promises.

The best part of the book, and a significant production, is the final essay, "Evangelical Spirituality," by Donald Bloesch. Honestly and perhaps

courageously he reflects on a condition which-all unconsciously on the author's part-may contain a warning to Catholic theologians! " The spirituality of Protestantism is not obvious, partly because of the secularization of our churches." (p. 166) He then proceeds to unfold his view of that real if hidden spirituality in its foundations, the means to achieve it, and its ultimate object, sainthood.

To one whose entire background is Catholic it is impressive at how many points Catholic and Evangelical spirituality (at least Evangelical spirituality according to Bloesch) coincide. While emphasizing that the Reformers recognized the distinction between the sacred and the profane, the author insists that Luther held that even the most menial tasks can be made to redound to the glory of God, even as did Tauler before him. (p. 167) To say the least, this suggests that the occasional reader of Luther can not know all that he says or all that he believes, if he confines himself to what Luther said about superstitious practices in monasteries. Surely, if the most menial tasks can be made to redound to the glory of God, they can also serve to strengthen man in God's grace. "In Evangelical theology," the author says, "grace is essentially the personal favor of God towards men." It is not " the power by which we make ourselves acceptable to God, but the act by which He makes people acceptable to Him. Grace is the holy God in action." (p. 170) St. Thomas would have no conflict with the meaning beneath those words. For him grace certainly implied something in the soul but " something bestowed on man by God " (I-II, q. 110, a. 1). Luther, I think, did not grasp, or at least he does not show that he grasped, the utter gratuity of grace as it was understood by St. Thomas and his tradition. For Aquinas the soul, changed by that " something " which grace put into it, still requires a further divine help, a grace, in order to act supernaturally. If Tauler perceived how the most menial task could redound to God's glory, it is because, like St. Catherine of Siena, he saw God's helping grace as always and everywhere influencing the soul, even as the enveloping water of the sea influences the fish.

Bloesch strikes another Catholic chord when he reflects on the dualism between light and darkness as fundamental to Evangelical spirituality, if it is a chord not often sounded by contemporary writers in Catholic spirituality. "The very meaning of the atonement," he says, "is tied to a dualistic understanding of reality." (p. 173) And, as he had noted earlier, " this is not a metaphysical dualism of nature and spirit but a moral dualism of light against darkness." (p. This doctrine of the two kingdoms extends much farther than Evangelical spirituality. The conflict between the kingdom of Christ and the kingdom of the Evil One is at the heart of the spirituality of St. Ignatius Loyola. He understood it, I submit, far more realistically than Luther or Calvin. It dominates the *Spiritual Exercises* as it dominated the insights of St. Paul and the insistent teaching of the *Didache*. This conflict, this *war* to the end, is also

at the heart of evangelical spirituality (with a small *e)* and is not to be reasoned away by identifying the sacred and the secular. There can never be any question in Christian thought about the possibility of baptizing the temporal, and the very least part of it, but neither can there be any question that it needs baptism if it is to redound to God's glory through man's use of it. Bloesch is not teaching "Evangelical Spirituality " but is echoing the spirituality of all the Christian ages when he reflects that "the material can be a channel of God's revelation but it can also be a barrier to the grace of God." (p. 169) Realization of that fact explains the spirituality of the Desert Fathers, every manifestation of authentic monastic spirituality, as well as every other phase of man's struggle against the powers of darkness which, as Vatican II remarks "pervades the whole history of man" *(The Church To-day,* par. 37). Bloesch reflects that "it is man's perpetual misuse of material things that makes Protestants wary of pan-sacramentalism." (p. 169) And so it should make all men of good will wary. It is by the dedicated use of good things in God's service, through and with God's grace, that the good things He has made are restrained in their ability to lead away from the way of grace.

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BOOKS RECEIVED

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the Recognition of Guilt, by Arnold Uleyn. (Pp. *255,* $5.95); *Priest for Tomorrow.* A radical Examination of Christian Ministry, by Ruud J. Bunnik. (Pp. 238, *$5.95)*

KTAV Publishing House, Inc: *The Teachings of Maimonides,* by Abraham Cohen. (Pp. 383, $8.95)

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Northwestern University Press: *Two Logics.* The Conflict Between Classical and Neo-Analytic Philosophy, by Henry B. Veatch. (Pp. 288, $8.00)

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Sheed & Ward: *Is Original Sin in Scripture?* by Herbert Haag. (Pp. 127, $3.95); *The One Bread,* by Max Thurian. (Pp. 159, $4.50)

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