Preface

Continuity, Quantum, Continuum, and Dialectic: The Foundational Logics of Western Historical Thinking

I consider this text a contribution to the Critique of Historical Reason begun by Wilhelm Dilthey.

Dilthey wrote in his 1883 *Introduction to the Human Sciences*:

Out of these premises emerges the task of developing an epistemological foundation of human sciences and then of using the instrument developed in that foundation to determine the inner connection between special human sciences, the limits in which knowledge is possible in them, and the relation of these truths to one another. One could designate the solution of this task as a critique of historical reason, that is, of man's capacity for knowing himself and the society and history he has fashioned.¹

The human sciences for Dilthey were the study of human intentions as they generated not only human history, but the other arts and sciences which examined human interactions. Yet, in this text which is indebted to many of Dilthey's ideas, I must extend the role of human intention to its influence upon how organic and inorganic nature has been studied. While my major focus is upon historical judgment, I will show in the spirit of Dilthey and those thinkers who strongly influenced his thought, beginning with Immanuel Kant, that all judgment of nature or the human spirit is by dint of its temporal-spatial generation 'historical' reason.

As Dilthey, I find the root of the concepts that inform historiography and other sciences within the temporal-spatial "lived experience" of human perception and judgment. As Dilthey, I explore the stylistics of human expression to discern in the rhythm of sentential judgments how time is generated and known by individuals. Dilthey foresaw a phenomenological historiography where a present or historical person's "lived experience" could be concretized for discernment by a hermeneutic that examined the linguistic artefacts of that person's sentences as they reported perceptions or asserted judgments. Dilthey realized that reflective phenomenology, if it was to examine the manner in which an individual's "lived experience" generated a distinct orientation towards the formulation of ideas concerning the world out of that "lived experience," required the linguistic artefacts of sentential judgment as evidence of how one experienced time and

consequently, judged of experience, informally as well as through formal disciplines. Dilthey wrote between 1907 and 1908:

whereas a fixed delimitation was not possible for lived experiences, this could be found for expressions and objectifications....This indirect procedure that uses expressions (to reconstitute lived time) has to some extent been applied by Brentano and Husserl...²

. Since Immanuel Kant, a phenomenological understanding of how time is generated in the immediacy of a judgment has been pondered. Kant elucidated how human cognitive experience is ceaselessly temporal, each predication as mere perception or verbal judgment being a succession of attentive moments. What is perceived or pondered is a sequentially aligned series of attentive moments that are composed of how one divides what is cognized into their related moments. Kant called the aligned interrelationships "extensive magnitudes," and held that one's actual experience of time is the "flowing" of these predicated parts and wholes in the movement of cognitive attention as one perceived or judged.³ As all of waking life is that of perceptive or ideational judgment, time is measured as a rhythm of attention by us constantly. Edmund Husserl, a younger contemporary of Wilhelm Dilthey, augmented Kant's inquiries into time constitution with his attention to the grammar that conveys the "lived experience" of this ceaseless "flowing." Husserl spoke in his Logical Investigations (1900) of the time-stretches of each moment our cognitive experience, time-stretches that grammar manifests as one divides an episode of perceptive or verbal predication into the aligned and related parts and wholes which are cohered in that predication. The timestretches by which we order experience, generating its temporal rhythm, are conveyed phrase by phrase, clause by clause, cohering into a "temporal concretum" design that is the sentential judgment. ⁴ Husserl refined and sharpened understanding of how the part-whole flux of attention formed the temporal concretum. Logic itself was seen at its root as derived from the kinds of dependent and independent relations posed by how the part-whole sequences of a perceptive or verbally predicated state-of-affairs was aligned in the flow of attention (Logical Investigations, 1970, 2: 435). Attention to the sequence of parts and wholes that convey the judgment is the immanent experience of time, one's actual "lived experience" as one judges.

Phenomenology since Kant has recognized the significant role of grammar in conveying

Judgment. The rules of grammar were recognized as stemming from the logical operations of the mind. In the age of Dilthey, Husserl, and one of his students, Anton Marty, philosophers began to recognize the differences between grammatical rules and the logic of judgment; nonetheless, they also recognized that thought was conveyed and shaped by grammatical possibilities. Contemporary thinkers still maintain the distinction, yet the necessity for comprehending grammatical possibility in thought's articulation. Comprehending the logical-grammatical interplay is fundamental to the hermeneutic I develop for elucidating styles of historical reason in persons. Aristotle's notion of the grammatical "period" of the well-formed sentence as a logopoetic, melopoetic, indeed phanopoetic medium for conveying a thought can arguably be considered the beginning of 'stylistics' as a necessary purview in comprehending the meaning of judgments. Stylistics' are central in my conception of a hermeneutic for discerning the differences in historical judgment among individuals. Increasingly, the role of 'styles' of grammar as a vehicle of judgment and its contribution to differing shapes of time has been probed by historiographers. Hayden White, Paul Ricoeur, Peter Gay, F.R. Ankersmit, and others have reflected upon the semantic and syntactical styles that convey differing event-structures of states-of-affairs.

Coupled to the recognition that judgment is the genesis of one's "lived" temporality since Kant was the understanding that reflectively formed concepts were derived from the actual time-design of aligned parts and wholes. One's reflections naturally abstracted from the way the data had been aligned in the flux of predication. Kant, in the final chapter of the Critique of Pure Reason ("A History of Pure Reason"), and later Dilthey and then Husserl realized the reflective formation of concepts relied upon the 'periodic' flux that generated time as the basis of any abstractive understanding. An epigenesis of ideas that stemmed from the stylistic temporal-spatial order of that person's judgmental statements could be a new foundation of the human sciences, a critique of historical reason, which demonstrated the centrality of "lived" temporal-spatiality as the basis of the kinds of concepts derived in a person's judgment. Indeed, great polemical contests of thought concerning how mathematics or physics are conceived, as well as those that recur in every generation in historiography, can be traced to the fundamental differences of how the particular scientists

knew temporal-spatiality in their own experience, and how they reflectively developed concepts in accord with that experience which differed from another inquirer's. My text will take up such controversies, and while I will focus primarily upon historiographical differences in the thinking of well-known historians and historical agents, I will make my case by taking up scientific controversies as well, such as that between Gottlob Frege and Bertrand Russell, elucidating their thought through a discernment of the style of historical-logical judgment in each man's ideation.

Yet, this text is not solely a critique of historical reason meant for the level of ideas that contributed to and changed culture. Since Dilthey, and even Husserl, linguistics and cognitive psychology has explored the genesis of ideation in infancy, early childhood, and adolescence. I draw from that literature to support my own findings in the study of adolescents that each person has a style of sentential judgment that is an artefact of that person's "lived experience," which helps explain their still immature concepts, and even how their proclivities in learning grammar becomes a foundation for their later thought and judgment. As a critique of historical reason, I begin with the evidence of ordinary youth, and locate my findings in research that corroborates the notion of an individual style of judgment.

What I have discerned as the four foundational historical logics of continuity, quantum, continuum, and dialectic, is not merely of this time, although my study of adolescents and practicing historiographers is of this time and recent history. I also show the presence of these historical logics in past ages, studying Tudor personalities and the Framers of the American Constitution. I do not dismiss sociological differences of generation and century, and the values and themes taken up by past persons. Rather, I show how within the content of judgment, styles of judging and concepts related to those styles emerge that are the same over time, even with differing content.

My discernment of four historical logics was stimulated by an age-old truism held by many contributors to Western historiography, namely that one's vision of historical events is conditioned, even shaped by one's personal experience of time. As Thomas Hobbes stated this premise in his riddle of the ship of Theseus, one's vision of a succession of events is generated by the manner in which one judges the

continuity, discontinuity, change, or duration of the facts of the event. Personal time is the distinctive flux of these continuities and discontinuities in one's experience. One's vision of history informally or in more formally defined concepts bears a direct relationship to this personal temporal experience. This text takes up the threads of Dilthey and Husserl, augmenting their studies and sketches of the effects of the logic of grammar upon historical and other conceptual perspectives. I discuss thoroughly my relation to historiographical theorists such as Hayden White, and a scientific philosopher Stephen C. Pepper, whose four "world hypotheses," the mechanist, the formist, the contextualist, and the organicist, served White as well as myself as a confirmation of the role of cognitive style in generating what I term "event-arguments," that is the distinctly differing ways of constituting and explaining a state-of-affairs. Pepper argued that each of the four styles of event-argument he discerned when judging the same state-of-affairs highlighted differing content and ways of constituting relations within the content. I write a chapter on Pepper's four forms of event-argument, showing their correspondences with my own findings of what I have termed the historical logics of continuity, quantum, continuum, and dialectic.

Since the Enlightenment, Western culture has developed the principle of a historical world in common that can be described by any inquirer in similar terms if adequate objectivity and sound method are employed. The scholastic heritage of individuative difference, where each soul knew the world according to its particular rational appetite disappeared with Leibniz's generation. In the emerging common world of historical time Chladenius (1710-1759), one of the modern initiators of historical hermeneutics, was an unheeded voice when he stressed that "Different people perceive that which happens in the world differently....it is generally accepted that there can only be one correct representation for each object and that if there are some differences in description, then one must be completely right and the other completely wrong. This principle is not in accordance...with the more exact perceptions of our soul (1742)." With reason such diversity was ignored as the new secular vision which today is called modernism became the cultural norm throughout the West. The new sciences demanded a common world, and secular history likewise had to assume its discoveries contributed to an ongoing understanding of how what had been in

culture led to the shared present. Although there were scattered voices between then and now that argued historical understanding was always limited by standpoint, the span of the past two hundred years in the conceptions of the arts and the sciences has been based upon one objectivity in common into which every insight and theory had to be integrated. This objectivity in common presumed a neutral sameness. Western culture seems ready to reopen avenues into comprehending diversity in perspective as a boundary that may disallow the historical vision given to us by modernity. This willingness is based upon the secure sense of what knowledge has contributed since the Enlightenment. Western culture seems ready to risk a locus of uncertainty in its new deconstructive methodologies that question the bases of history "wie es eigentlich gewesen war" "as it really was."

The phenomenological historiography I offer with the logical-grammatical hermeneutic I develop that focuses upon the characteristic sentential judgments of persons addresses the aporia articulated by Paul Ricoeur in his third volume of Time and Narrative: how can one's personal experience of time in its singularity, that is phenomenological time, be distinguished evidentially as distinct from one's location in and awareness of cosmological time, that is the in-common time by which one measures personal and public events? With the tools of linguistics, cognitive psychology, stylistics, symbolic logic, phenomenological philosophy, and the historicist tradition in my own field, I address Ricoeur's question and relativistic solution. My answer hinges on the recurrent logic and grammar of the sentential judgment, a style of expression that allows one to differentiate the personal construction of historical time from the normative public understandings of historical time that may enter the literal claim of the sentence. My findings resolve univocal history into the history of "multiple objectivities," exploding the notion of a commonly objective world. My work associates me with contemporaries who are of the postmodernist viewpoint insofar as this deconstruction of univocal history. However, I accomplish this analysis with the foundation and tools of the modernist. The modernist project since Leibniz and Kant had always seminally intuitions and methods that with augmented development could substantiate the objective diversity in judging what was in-common. The richness and promise of the Leibnizian-Kantian 'Copernican' revolution in knowing the human spirit as its

own source of creative understanding and action, recognized in that seminal richness by Wilhelm Dilthey and Edmund Husserl, does not cease to be pertinent because of the postmodern epistemological skepticism of our age. Rather, postmodernism in itself is but a move towards the 'multiple objectivities' that inhered in epistemological nuances of the founders of modernist objectivity.

Hayden White is a mentor for me, who like myself, combines the modernist reliance upon the intergenerational search for the rules of cognition, with the postmodern emphasis upon the diversity of historical meaning created by language forms and narrative styles. White has called himself an unreconstructed Kantian. His respect for categories of judgment, such as the quantitative part-whole distributions whose varied succession generate variations in the personal experience of time, underlie his tropic theory of historical imagination. White's range of tropes that convey differing historical models of event are formed by part-whole relationships among the event's facts. His reliance on Stephen C. Pepper reflects his implicit Kantian, constructionist epistemology.

My contribution of the four historical logics while indebted to Pepper and White, relies upon new forms of evidence that link my contribution more explicitly to Kant, Husserl, and the phenomenological analysis of historical judgment. Both Pepper and White derive their evidence of four differing models for structuring events from the consciously crafted concepts by which historical thinkers and other scientists make their cases. Indeed, all historiography into the present day discusses historical points of view and argument by taking up the self-conscious conceptions that are held by a thinker. Although I discuss the relevance of historical concepts to the foundational historical logics I present, my level of analysis is based upon a more primary level of time-design. I reveal how in each well-formed sentence of an individual, a recurrent part-whole design structures the event predicated, a part-whole design that generates a distinct vision of the historical flux of that event. I bring two forms of evidence to my demonstrations of these part-whole successions in the recurrent, well-formed sentence of the thinker--(1) a symbolic logical analysis of how the syntactical style creates a distinctive part-whole succession and thus time flow, i.e. the Aristotelian 'period,' and (2) how out of this flux in judgment semantic and syntactic norms become a foundation for an

epigenetic development of related ideas. The recurring "event-structures" which emerge in a person's thought over time, that is the manifest arrangement of content in a judgment which orders an event for that person, become the reflective basis for informal "event-arguments," derived notions and concepts, and perhaps formal theories in one's chosen discipline.

This empirical, i.e. artefactual evidence carried by the manifest sentence enables a logical analysis of the temporal-spatial pattern of structuring events which will be demonstrated as an invariant style of cognition over a career of thought in a person. In my chapters on historians, historical personalities, and contemporary ordinary persons (adolescent twins and singletons), I am then able to relate the proto—historical conceptions, more formal historical conceptions, and philosophies of history directly to the foundations of logical-grammatical judgment that antedate the development of the self-conscious historical conception. My study of adolescents and the early thought of historians and historical personalities secure my claim that there is a teleological link between the opaque, i.e. unreflected upon presence of a time design in each well-formed sentence and the maturation of self-conscious concepts of history. One is not simply free to adopt any concept of history whatsoever, rather one is inclined towards certain concepts by what Aquinas and Leibniz called one's "rational appetite." A lifelong style of time genesis in each sentence predication is the foundation for our ideas about history.

The four historical logics are themselves variants of a fundamental difference found in cognition that differentiate persons, the "aggregative" and the "quantum" discernment and organization of temporal-spatial experience. Immanuel Kant's isolation of these two salient modes of organizing the content of a judgment in my estimation and argument captured the cognitive stems that differentiate judgment among all persons (1968, 204 [A 170, B 212] and 547-548 [A 66 7, B 695]). Each of these fundamentally different manners of organizing states-of-affairs is dynamic in that a distinct temporal flux is both generated and experienced even as one judges (1968, 204 [A 170, B 212]. Logic is the relational possibilities between the parts and wholes ordered in distinctive manners, in this Kantian appreciation, either aggregative or quantum. The logic is a 'historical logic' when one appreciates the "flow of time"

generated by that order. The logical-grammatical articulation of an aggregative organization of states-of-affairs relies on a dissective grammar, that is choices of semantics and syntax that stipulate discretely measurable times, places, and manners, focusing upon the properties of what is cognized. The logical-grammatical articulation of a quantum organization of states-of-affairs relies upon a nondissective grammar, that is a grammar that conveys interdependent relations, where discrete measure is less significant than a delineament of the reciprocally shared pattern. The grammatical distinction between the "aggregative" and the "quantum" cohering of events has been recognized in the distinction, respectively, of metonymic and metaphorical language. ¹⁰ I will take up these semantic and syntactic distinctions in depth in the early chapters of this text.

A historical logic of continuity is a variant of aggregative temporal-spatial constitution. Continuity as a historical logic conceives each moment as an integer in an open-ended, incremental series of events:

1+1+1...+1. This incremental chain goes forward into infinity, coming from a past that has a distant origin.

All the event-moments of this incremental chain share a general character that enable one to conceive the totality of the chain. Nonetheless each event moment is singular in its properties, relating to the general character of the chain as a species to a genus. Modern critics of Western culture have called this conception linear time, faulting it as being conducive to a narrow, teleological conception of history. I will speak of the historical logic of continuity in a much more differentiated manner, where discussion of its linearity and telic nature are but metaphorical reflections on some of its logical properties. None of the historical logics I demonstrate are to be understood pejoratively, rather each is a variation in temporal-spatial understanding that has its benefits in helping human beings order the nature of experience. There appears to be a psychogenetic origin of these logics given their early appearance in the thought of children and their distribution in the general population. I address this issue in my empirical studies of twins.

Quantum historical logic is a variation of the quantum form of organization that Immanuel Kant first defined in contradistinction to the aggregative. Dialectical logic will be a second variation of the Kantian quantum organization. Quantum historical logic treats historical experience as composed of self-subsistent

wholes formed by interdependent parts. The quantum thinker as in Kant's discussion, will cohere what seems like separate entities into an interdependent sets of relation with a cohering "principle." Kant discussed how an aggregative mind would see initially the separateness of ten dimes on a table, each a separate value, whereas a quantum organization would seek first their common, interdependent value, the dollar that they formed. Quantum organizations of experience tend to separate events in time by the distinctiveness of their patterned occurrence. Where the historical logic of continuity forms events into a successive or incremental chain that may be generally related, but primarily appreciated in each distinct moment, quantum historical logic reocognizes individuality chiefly in its function as it instantiates the larger pattern to which it contributes. Patterns differ as they mature and dissipate, and thus the quantum thinker does not see the same infinite continuity as the continuity thinker (548, A 558, B 696). The notions of Zeitgeist, age, period, etc. are quantum ideas (which will be entertained as well by dialectical historical logic).

Continuum historical logic is the second major variant of aggregative thought. Continuum historical logic is the setting of arbitrary terminuses of beginnings and endings, but treating what is included between alpha acts and omega acts as a continuum. There is no sense of an infinite, incremental chain from the past and into the future, rather an attention to spans of time whose constituents are seen to be loosely related. Nor does the continuum thinker see quantum cohesion among the particulars that are conceived a continuum. Rather contingent association is the guide in comprehending temporal-spatial relations. The continuum thinker will be more concerned than individuals with other historical logics in evaluating how and why certain events form their temporal relationships. The discrete identification of time, place, and manner, and the property-orientation that deepens insight into particulars is the grammatical rule of cognition. Rather than allowing the continuity thinker's reliance on a general character of the incremental chain of singular persons, places, and times, the continuum thinker will substitute evaluative 'connections' between each singular thing and moment of the continuum. This evaluative circumspection seems to be caused by the very salience of 'contingency' in establishing the relations that constitute the continuum, as well as what my research has shown to be a human need for some organizational principle. The continuity thinker, the quantum thinker,

and the dialectical thinker all recognize a higher-ordering idea or principle; only the continuum thinker rejects such a premise, but relies, nonetheless as an aggregative mind, on measurable connections between things that share a time, place, and manner. For the continuum thinker, measures that connect into shared episodes of experience can change; for the continuity thinker there is more of a conservative reliance on time-tested thematic connections. Thus, the continuum thinker is more in the mold of what Nietzsche has called the critical historian, and what is commonly called a relativist or contextualist.

Dialectical historical logic reflects the same establishment of a time-series that emerges from a seemingly infinite past into an infinite future, but incorporates the notion of quantum phases which conflict with or interrupt that incremental line of change. Integration of the opposed quantums in a larger quantum is realized as in classic dialectical theory. There is a more recognizable accord between the logical-grammatical design of the dialectical sentence and the conceptual premisses of the conscious theory than in the three other logics. That is because of the marked shifts of thesis, antithesis, and synthesis in the syntax of the dialectical thinker's sentence. One is tempted when reading the evidence of the dialectical logic, especially in articulate thinkers, to ascribe the cause to the conscious conception. This is when the evidence of early adolescent writings serves an important purpose in demonstrating the grammatical foundations of a maturing, conscious philosophy. Dialectical historical logic, as its cousin the quantum, stresses interdependence among the persons, places, and things judged. Even when a quantum or dialectical thinker recognizes individual properties, that recognition is sublimated to how and why the properties function in cohering interdependent relations. The dialectical thinker differs from the quantum thinker in the attention to what preceded the present pattern attended, and to what seems to be emerging as the next pattern. Every episode of judgment is more extended in the horizontality of a past becoming a future than in the essentially vertical quantum appreciation of how this set of actions in this state-of-affairs functions in its complexly interdependent reciprocities, as governed by the in-common principle. The dialectical thinker by discerning and elucidating the contrasting reciprocalities within a state-of-affairs, which can be articulated as differing modes of comprehending a state-of-affairs brings to the movement of a quantum the same critical account the

continuum thinker brings to the incremental sequence of acts that are asserted to be a continuum.

There are differences even within these four historical logics among persons who share one of them. I devote a chapter to how the modal differences in judgment which Kant examined, conceiving states-of-affairs as "possible" (problematic), "actual" (assertoric), or "necessary" (apodeictic) differentiate persons of each of the four foundational historical logics. The evidence of these modal 'styles' of historical judgment is found in the recurring grammar of the sentential judgments of persons. Thus, there are twelve types of historical logic to be found that vary aggregative or quantum organization. Moreover, in my study of identical twins who were found to share one of the same twelve types, I discerned further nuanced differences in the logical-grammatical evidence, and the concomitant ideas. This finding substantiates the notion of absolute individuation in cognition that has been a contention in Western philosophy since Aquinas.

In first six chapters of my text I develop the logical-grammatical bases of a hermeneutic to be applied to persons in any age of history. My approach is interdisciplinary, out of necessity. There have been so many advances in the arts and sciences that contribute to what on the surface might seen a tour de force on my part, claiming to offer a thorough critique of historical reason. I have inherited work in philosophy, linguistics, symbolic logic, cognitive psychology, as well as historiography, that has been moving in the direction I have synthesized. I link my work carefully to the phenomenological tradition in examining perception and judgment, the generative-transformational grammar of Noam Chomsky, the intentions of symbolic logicians, such as Rudolf Carnap and Hans Reichenbach, if not wholly their conclusions, and as I have stated, the historiographical perspectives of those historians who have made the so-called 'linguistic turn'. The next four chapters exemplify how the use of the hermeneutic to discern historical reason can illuminate the single and interdependent actions of individuals in particular cultures. The most attention to the effects of counterposed historical logics within a distinct political-social milieu of seemingly common values and purposes is my study of the many of the leaders of the American Revolution.

A critique of historical reason as I outline it can become a metacognitive tool even for children as soon as their early adolescence. The implications of the actual diversity of how members of a population

differ in judging of events can be a new avenue for understanding and cooperation in every aspect of life. I close the text with a chapter on the pedagogy of historical judgment because of the enhanced understanding such a pedagogy can bring in its discernment of the individuative differences.

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5. Aristotle, *Rhetoric*, trans. W. Rhys Roberts (New York: Modern Library, 1954), 1409a-1410b; 180-186. Further reference to this text and edition in parentheses.

Endnotes

¹ Wilhelm Dilthey, *Introduction to the Human Sciences, An Attempt to Lay a Foundation for the Study of Society and History*, trans. Ramon J. Betanzos (Detroit: Wayne State University Press, 1979), 146.

Wilhelm Dilthey, *Poetry and Experience*, ed. Rudolf A. Makkreel and Frithjof Rodi (Princeton: Princeton University Press, 1985),
 The German original is in Dilthey's *Fragmente zur Poetik, Strukturpsychologie* in *Die Geistige Welt, Einleitung in die Philosophie des Lebens, Gesammelte Schriften* VI (Göttingen: Vandenhoeck & Ruprecht, 1958),

³ Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (New York: Macmillan, 1968), 198-204, especially 204 [A 170, B 212]. Further reference to this text and edition in parentheses.

⁴ Edmund Husserl, *Logical Investigations*, 2 vols., trans. J.N. Findlay (London: Routledge and Kegan Paul, 1970), 2: 484-489 [Investigation III,Par. 25] where Husserl introduces the notion of the temporal concretum formed from time-stretches of judgment, and Logical Investigations, 2: 518-526 [Investigation IV, Pars. 13 and 14], where he stipulates the kind of logical-grammatical studies required for discerning such temporal concretums in sentential judgments. Further reference to this text and edition in parentheses.

⁵ See Robert Sokolwoski, *Husserlian Meditations, How Words Present Things* (Evanston: Northwestern University Press, 1974), 225, n. 11. Further reference to this text and edition in parentheses.

⁷ Johann Martin Chladenius, "On the Interpretation of Historical Books and Accounts," *The Hermeneutics Reader, Texts of the German Tradition from the Enlightenment to the Present*, ed. Kurt Mueller-Vollmer (New York: Continuum, 1989), 65.

⁸ Paul Ricoeur, *Time and Narrative*, trans. Kathleen Blamey and David Pellauer, 3 vols. (Chicago: The University of Chicago Press, 1983-85), 3: 244-249. Further reference to this text and edition in parentheses.

⁹ See Aquinas, *Summa Theologica*, Part II, Question 63, Art. 1, "The Causes of the Virtues," *Basic Writings of Saint Thomas Aquinas*, Volume Two (New York, 1944), p. 482. See Leibniz, *Philosophical Papers and Letters*, p. 268 and footnote 7, p. 271 which refers to Aquinas, Summa Theologica, Part II, Question 50, Art. 4, "Whether There Is Any Habit in the Intellect?," in *Basic Writings of Saint Thomas Aquinas*, Volume Two (New York, 1944), p. 381. See also Leibniz, *New Essays Concerning Human Understanding*, translated by Peter Remanant and Jonathan Bennett (Cambridge: Cambridge University Prress, 1996),90–91 [Book I, Chapter II, Par. 3 and 4].

¹⁰ See Roman Jakobson and Morris Halle, *Fundamentals of Language* ('S-Gravenhage: Mouton, 1956), 76-82. Further reference to this text and edition in parentheses.