

Chapter 2

The Individual in Leibniz's Philosophy, 1663–1686

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In his *Leibniz: Body, Substance, Monad* (2009), Daniel Garber works through, in great detail, the twists and turns in Leibniz's thought, from his early idiosyncratic Hobbesian views, to those he developed in his middle years, and ultimately to the later *Monadology*. Garber reconstructs Leibniz's concerns, almost day-by-day, and the modifications he makes to his views, as he delves into issues about body, motion, and force within diverse philosophical, physical, metaphysical, mathematical, and theological contexts. This, of course, constitutes a concrete repudiation of the kind of history of philosophy, such as Benson Mates' study of Leibniz that strives to produce a "syncretic" picture of the thinker's thoughts. In *The Philosophy of Leibniz* (1986, 7), Mates asserts that "Leibniz did change his mind on many topics, as would be expected. Indeed, he himself tells us about some of these changes, mostly having to do with his views on matters of physical science." However, Mates continues: "But on the fundamentals points of his philosophy, his constancy over the years is little short of astonishing. From the first of his publications, at age 17, to the end of his life he never wavered in holding to the rather unusual and implausible doctrine that things are individuated by their 'whole being'; that is, every property of a thing is essential to its identity." Mates concludes: "Consequently, in this account of the elements of Leibnizian philosophy I have felt free, on the whole to cite him without paying much attention to the date of the passage cited."¹ We wish to emulate

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¹It would be unusual, of course, if Leibniz could change his views on matters of physical science and remain constant on the fundamental points of his philosophy. And, in fact, if Garber is right about Leibniz's changes with respect to body and substance, one would also expect changes with respect to individuation. Following Aristotle, most medieval philosophers commonly endorsed the principle that unity does not add anything to being (Aristotle 1910–1952, *Metaphysics*, book Γ, 1003b 30–32). In this Aristotelian framework, the axiom refers to the convertibility of unity and being, unity (or oneness) as a transcendental property of being. The notions of being and unity are thus mutually supporting. Leibniz echoes this; as he says to Arnauld, "I hold this identical

Garber's method in tracing Leibniz's views about individuation, his twists and turns, his 180° shifts, over a host of disparate theses; but we also wish to limit our story to the period of Leibniz's early to middle years, from his 1663 (deeply Scholastic) bachelor's thesis, *Disputatio Metaphysica de Principio Individui*, to his more mature work, *Discours de Métaphysique* (1686); in the process we will also discuss his views of individuation in a number of his other essays, including the *De Transsubstantiatione* (1668), *Confessio philosophi* (1672), and *Meditatio de Principio Individui* (1676).

Let us start with our endpoint, that is, the notion of individuation Leibniz marshals in the *Discourse*. As Leibniz says there, God chooses the perfect world, one made up of individuals with actions and passions, given that actions and passions properly belong to individual substances – *actiones sunt suppositorum* (DM § 8). What God creates are subjects, that is, individuals, like Alexander, whose individual notion or *haecceity*, God sees. And what God sees in this individual notion or *haecceity* is “the basis and reason for all the predicates that can be said truly of him, for example, that he vanquished Darius and Porus; he even knows *a priori* (and not by experience) whether he died a natural death or whether he was poisoned, something we can know only through history” (DM § 8). Among the “notable paradoxes that follow,” as Leibniz calls the propositions to which he is committed, are the claims that “every substance is like a complete world and like a mirror of God or of the whole universe” (DM § 9) and that no two substances can resemble each other completely and differ only in number – *solo numero*. Given that two substances cannot differ only in number, Leibniz formulates his positive view as: “what Saint Thomas asserts on this point about angels or intelligences (that here every individual is a lowest species [*quod ibi omne individuum sit species infima*])² is true of all substances” (DM § 9). Thus, in the *Discourse on Metaphysics* Leibniz weaves together three disparate notions – at least in provenance – about individuation: Thomas' *species infima*, a Scotist *haecceity*, and the complete concept view of substance. Leibniz's complete concept view of substance, with the specific notion of individuation employed by it, entails the thesis of the identity of indiscernibles.³

proposition, differentiated only by the emphasis, to be an axiom, namely, that what is not truly *one* being is not truly *one being* either” (30 April 1687, GP II, 97; AG 86). Oneness in this famous Leibnizian aphorism on the convertibility of being and unity has to be understood as pointing at the same time to the indivisibility of the being (by excluding any composition through the addition of parts) and to the uniqueness of that which is the only being that is what it is.

²See Thomas Aquinas (1964–1976), *Summa Theologiae*, I, q. 50, art. 4.

³The mature Leibniz will not be as positive about these Scholastic remnants. Putting a negative twist on the “notable paradox” that two things cannot be perfectly similar, the mature Leibniz will say: “The vulgar philosophers were mistaken when they believed that there are two things different in number alone, or only because they are two, and from this error have arisen their perplexities about what they called the *principle of individuation*” (GP VII, 395; AG 334). One can see this as Leibniz's answer to the issue of individuation in his confrontation with Locke and the revival of the problematic of individuality and singularity in the *New Essays*. Leibniz echoes a passage in which the principle of individuation is said to be something of concern merely in the schools, “where they torment themselves so much in seeking to understand what it is.” In his response he asserts: “The *principle of individuation* for individuals reduces to the principle of distinction. [...] If two individuals were perfectly similar and equal and (in a word) *indistinguishable* in themselves, there would be no principle of individuation” (GP V, 214).

The seemingly disparate notions can be found together elsewhere in Leibniz's writings in the 1680s.⁴

We should emphasize two points about the three elements concerning individuation, which, for Leibniz in the 1680s, entail the identity of indiscernibles. The first is that seventeenth century Scholastics usually distinguished the three from one another. For example, in his *Metaphysics*, Scipion Dupleix (1610) discusses three main opinions about the principle of individuation, that of the Thomists, with their *signate* or quantified matter, of the Scotists with their *haecceity*, and of another group which he does not identify with anyone in particular. He grants that the Thomists have the authority of Aristotle behind them, but argues that quantity cannot reveal “the proximate and true formal cause of the individuality and unity of the essence of singular things,” since quantity is always an accident and accidents do not operate at the level of essences.⁵ Dupleix's preferred position is the general Scotist position that “in order to establish the individual essence of Socrates, Alexander, Scipion, and other singular persons, we must necessarily add for each one of them an individual and singular essential difference which is so proper and so peculiar to each of them for themselves, that it makes each of them differ essentially from all the others.”⁶ His third, anonymous group consists of those who base the principle of individuation on the “multitude of accidents,” given that this multitude “is never found together in any other subject.”⁷ Dupleix (1610) has no problem rejecting this opinion using the same argument he used against the Thomists: accidents cannot be the principles of the essential constitution of substances.⁸ So

⁴Leibniz argues, in *Notationes Generales* (Summer 1683–1685?), that singular things are ultimate species, that there can never be two singular things similar in every respect, and that the principle of individuation is always a specific difference; he adds that this is what Saint Thomas said of intelligences, but applied to all individuals. Leibniz considers the example of two eggs and asserts that one should be able to say of one egg something that cannot be said of the other; otherwise, they could be substituted for each other and there would be no reason not to say that we are dealing with one and the same thing. “Hinc porro sequitur Singularia esse revera species infimas, neque umquam dari posse duo singularia per omnia similia et proinde principium individuationis semper esse differentiam aliquam Specificam, quod S. Thomas ajebat de intelligentiis, sed idem est verum de individuis quibuscunque [. . .] exempli causa duo ova, necesse est enim aliqua de uno dici posse quæ de altero dici non possint, alioqui substitui sibi mutuo possint, nec ratio erit cur ita non potius dicantur esse unum et idem” (A VI, 4A, 553).

⁵Scipion Dupleix (1992), *La Metaphysique*, 233.

⁶Dupleix (1992), *La Metaphysique*, 235.

⁷Dupleix (1992), *La Metaphysique*, 232.

⁸René de Ceriziers similarly refers to two groups: (1) those who accept “a real difference that determines the thing's particular nature, in the way Rational restricts animal to the species of man,” presumably the Scotists, and (2) those who “think that the principle of individuation is nothing more than the concurrence and multitude of the accidents that befall the substantial being of the individual” (De Ceriziers 1643, *Le Philosophe Français* 3, 31). De Ceriziers rejects both of these principles of individuation. Théophraste Bouju also gives a similar argument, but from a Thomist perspective, against those who hold that something is singular by its essence and by its accidents all together, which, he claims, would be not different from the Scotist view that the thing is individuated by its essence alone. Bouju asserts: “The singularity of the thing would be distinguished only rationally from the whole thing, which would amount to things being neither universal nor singular by themselves, but through the consideration of the understanding” (Bouju 1614, *Corps de toute la philosophie*, 237).

Dupleix (1610) distinguishes the Scotist position he favors from both the Thomist and the third (this latter position can be considered as a forerunner of Leibniz's complete concept, in which the principle of individuation is nothing more than the multitude of the accidents that befalls the individual). Dupleix (1610) rejects these two alternatives because he thinks that quantity and quality cannot provide the basis for the individuality and unity of singular things, since they are accidents and accidents do not operate at the level of essences.

The second point is that the views represented by Leibniz's three notions were rejected by him in his 1663 thesis, two of them explicitly and one implicitly; implicitly also, he did not subscribe to the identity of indiscernibles at the time. Leibniz's 1663 *Metaphysical Disputation* was a youthful Scholastic exercise.⁹ It begins with a preface written by Jakob Thomasius, Leibniz's professor at Leipzig, which shapes the thesis. The preface provides a guide to the underlying conceptual framework and strategic aim of his student's dispute.

With an expeditious gesture, Thomasius dismisses the controversial problem of individuation as being "more subtle than necessary," while the thesis which his student will defend (the individual being individuated by its whole entity) is characterized as "the most simple and true," set to avoid many thorny difficulties (A VI, 1, 8). Moreover, the preface advances the Nominalist *tota entitate* principle as the most exemplary treatment of the problem, a thesis notably maintained by Francisco Suarez in his *Disputationes Metaphysicae* (1998). For Thomasius, ancient Greek philosophy can be divided into four sects, sharing an essentially pagan component. In attempting to explain finitude and the origin of evil, Platonists, Aristotelians, Zenonists, and Epicurians, all resort to the same dualistic, "manichaeist" program according to which *ex nihilo nihil fit* and thus posit matter as a second metaphysical principle, alongside God, uncreated and coeternal with him.¹⁰ According to this historical reconstruction, the Aristotelian-Thomistic idea of individuation through *signate* matter originates within this ontological setting and is thus unsatisfactory from the point of view of a Christian philosophy. Thomasius argues that since the Thomistic individuation thesis limits itself to corporeal substances, Scotus' *haecceity* should be favored as the more general solution to the problem of individuation.¹¹ As Thomasius sees it, Aquinas and his followers cannot contribute to a general solution because they hold a principle of individuation for simple creatures, such as angels, different from the one they hold for corporeal creatures. For Thomas, spiritual creatures are altogether simple in their essence, but have a dual composition of essence with existence and of substance with accidents. Corporeal creatures are

⁹The full title is *Disputatio Metaphysica/De/Principio Individvi./Quam/Deo O. M. Annuente/Et/Indultu Inclytæ Philosoph. Facultatis/In Illustri Academiâ Lipsiensi/Præsidente/Viro Excellentissimo et Clarissimo/Dn. M. Jacobo Thomasio/Eloquent. P. P. Min. Princ. Colleg./Collegiato/Præceptore et Fautore suo Maximo/Publicè ventilandam proponit/Gottfredus Guilielmus/Leibnuzius,/Lips. Philos. et B. A. Baccal./Aut. et Resp./30. Maji Anni MDCLXIII.* As one can see, Thomasius is given "top billing" (in the largest font); Leibniz's name comes in second (and in smaller font). For more on the relations between Thomasius and Leibniz, see Mercer (2002).

¹⁰A VI, 1, 6. This judgment on Greek thought is taken up again in Jakob Thomasius (1665).

¹¹A VI, 1, 6 and note.

composed in addition of potency and act, that is, of matter and form. Thus, the principle of individuation for corporeal creatures, namely *signate* (or quantified) matter, relies on something that angels do not possess. (Each angel, as a result, constitutes its own species.) Given the division of labor between teacher and student, Leibniz is charged with the critique of the Scotistic principle of individuation through *haecceity*, which receives the longest treatment in his bachelor thesis.¹²

As a result, in the *Metaphysical Disputation* (1663), Leibniz follows the path traced out by his teacher. He dutifully sets aside Thomas' solution as not furnishing a single principle of individuation for both material and immaterial substances (A VI, 1, 11, §3). He discusses four other possible solutions to the problem, rejecting three of them, including the Scotist answer, and defends as best the "whole entity" principle of the nominalists.¹³ Perhaps the one novel element in Leibniz's contribution to the issue of individuation is the taxonomy he provides. Either a single general principle of individuation for all individuals can be given or, because different principles for material and immaterial individuals must be provided, it cannot. With respect to the general principles, the whole entity can be proposed as a principle or something less than the whole entity can be proposed. Within the category of "something less," the principle can be expressed by negation or by something positive added to the essence. Two views have been proffered for the positive principle, that is, existence and *haecceity*, depending upon whether a physical part or a metaphysical part is added. Since Leibniz disposes negatively of non-general principles (one of which he identifies as Thomas'), he discusses four primary options: (1) whole entity; (2) negation; (3) existence; and (4) *haecceity*. The young Leibniz attributes the first principle he discusses, "whole entity", to some older and to some recent Scholastics, including Suárez. Further, he classifies the principle as that of the terminists or nominalists and defends it against the attacks of the Scotists (identified as such). There is no mystery about this principle of individuation. Leibniz claims that the whole entity of a composite being is simply its matter and form; he states that he uses the term "whole entity" rather than "matter and form" merely because he wants the principle to be general and to cover immaterial substances (A VI, 1, 12, §4). Moreover, by "matter and form" he does not include accidents, which he specifically omits from the discussion (A VI, 1, 14, §10). If Leibniz's principle works at the level of matter and form without any consideration of accidents, then Leibniz in 1663 does not hold the complete concept view of substance and thus he is not committed to the identity of indiscernibles; clearly he also rejects versions of both Thomist and Scotist principles of individuation.

¹²Thomasius is representative of a powerful revival of Aristotelianism on the side of Reformation. His polemic against the Scholastics and the Scotists, in particular, is constant; he regards contemporary metaphysical systems such as Clemens Timpler's or Suárez' to be ontologically deviant in their lack of theological premises. For more on his judgment of Scotism, see Thomasius (1665).

¹³It is generally recognized today that Leibniz constantly endorsed or adhered to a nominalist ontology or epistemology. See Fichant (1998, 147), but also Mugnai (1990). The passage in the correspondence with Arnauld is also a statement of one of the main tenets which make up Leibniz's "provisional nominalism": the specific claim to a particularist ontology that only individual substances exist. In a text from 1688 entitled *De realitate accidentium*, Leibniz defines himself as a nominalist, at least "per provisionem", see Grua II, 547.

A few years later, in 1668, in the theological context of finding a philosophical explanation for the Eucharist, Leibniz changes his mind and accredits individuation to the substantial form viewed as an active principle directly enacting a divine idea: more specifically, he asserts that bodies are not substances apart from a concurring mind because a substance is a being that “has a principle of action within itself” and “*actiones sunt suppositorum*.” Substance is union with a mind and bodies that lack reason are substances through a union with the universal mind or God. Transubstantiation thus involves the mind of Christ taking on the accidents (bread and wine) in the sacraments, substituting its special concourse for the general concourse of the divine mind. Thus the transubstantiated accidents would have numerically the same substantial form as Christ’s body and since they would not be changed in any respect besides the substantial form of the concurrent mind, they would retain and realize their accidents. Leibniz states in a scholium: “These theorems of ours differ very little from the accepted philosophy. In Aristotle, nature is the principle of motion and rest. But substantial form is properly nature in the same philosopher. Hence Averroes, Angelus Mercenarius, and Jacob Zabarella also assert that substantial form is the principle of individuation” (A VI, 1, 510; L 117). In the 1663 thesis, Mercenarius and Zabarella were cited as supporters of the Scotist view; they are now among those who agree with Leibniz, which places Leibniz in the Scotist camp.¹⁴ In case the point is not fully understood, Leibniz also refers to “Those who locate the nature of subsistence in the union of matter and form, like Murcia” (A VI, 1, 510; L 117), thereby distancing himself from that position. Of course, in 1663, Murcia was among those who agreed with Leibniz in holding the “whole entity” principle of individuation. Leibniz emphasizes that he is using the terms substance, transubstantiation, accident, species, and identity in the same sense which the Council of Trent favored, that none of his conceptions are innovations, that he demonstrates “the numerical identity of substance from the numerical identity of the substantial form, in conformity with the principle of the noblest Scholastic and Aristotelian philosophers, for whom substantial form is the principle of individuation.”

Despite his 1668 explanation of transubstantiation claiming that substantial form is the principle of individuation, Leibniz almost immediately began rejecting substantial forms.¹⁵ In 1668 and 1670, Leibniz advocated a nominalistic, particularist

¹⁴ Leroy Loemker realized this; in a footnote to the passage he writes: “Leibniz’s departures from Thomism are significant; his view of individuality and of the soul here is Scotistic, though he had earlier rejected Scotus’ principle of individuality. The unity of matter as an aggregate is never itself material but logical and mental. The soul itself, in turn, has its own matter, distinct from its body” (L 120). Loemker is right in thinking of the view as a kind of Scotism, even though, of course, it says nothing about individuals as common nature plus *haecceity*, two things asserted to be formally distinct. Substantial form as principle of individuation would have been considered by Leibniz in the category of “something less” than whole entity, with a metaphysical part being added to the essence.

¹⁵ In 1668, Leibniz adds a Neo-Platonic spin to his conception of substantial forms: substantial forms are ideas in the mind of God.

ontology and rejected any universals, substantial forms, and real qualities.¹⁶ The 1668 account of transubstantiation presents several stumbling difficulties which lead to the rejection of substantial forms in Leibniz's 26 September/6 October 1668 letter to Thomasius and his preface to Nizolius (1670). The Academic edition of Leibniz's works transcribes four fragments or samples under the common title of *Demonstratio possibilitatis Mysteriorum Eucharistiae*: the first three fragments from 1668 (among which is *De transsubstantiatione*) start with a critique of English philosopher Thomas White. While these three fragments preserve the use of substantial forms, the fourth one (1671) does not mention substantial forms any more, only referring to them negatively as the "fictional and monstrous entities" of the Scholastics (same fragment: A VI 1, 516). Moreover, in the letter to Thomasius from 26 September/6 October 1668, Leibniz shows his support toward the new mechanistic philosophy and accordingly sets up the program of reconciling Aristotle and the *novatores*. Leibniz adopts as a common rule of mechanism the simple formula that all corporeal properties of bodies have to be explained through their primary attributes, i.e. magnitude, figure, and motion. Even though in 1668–1670 Leibniz's adoption of this rule is not yet paralleled by a carefully formulated natural theory, he uses it as the grounds for a renovation of the proof of the existence of God as Prime Mover. This renewed demonstration was supposed to be a part of chapter 4 of the first part of the plan of his *Catholic Demonstrations*.¹⁷ A preliminary version of it can be found in the introduction to *De Arte combinatoria* (G IV, 32–33). Each body or corporeal nature receives its mechanistic features and primary attributes from a unique and incorporeal principle or being: God as governor of the material world. A mechanistic explanation of nature requires a Prime Mover, since the cause of motion in the universe cannot be a principle physically immanent to the corporeal nature of bodies. Bodies do not move because each of them would possess an immaterial entity or internal principle of activity responsible for their autonomous motion, but as a consequence of reciprocally transmitting or transforming motion through their primary attributes.¹⁸ Despite its apparent Aristotelianism, Leibniz's attempt at renewing the proof of the existence of God as Prime Mover is quite un-Aristotelian: for Aristotle, the unmoved mover causes the motion of other bodies through final causation and not as an efficient cause.¹⁹ In Leibniz's case, the unmoved mover, God, is a "full" efficient cause, responsible for all efficient causation in the universe. The notion of God he marshals in this early period is that of

¹⁶ This does not seem very different from Leibniz's earlier adherence to nominalism in the earlier *Disputatio*. Yet, explaining the reasons for Leibniz's rejection of substantial forms in 1668–1670 enables an understanding of the larger context which ultimately led him to positing an external principle of individuation in the *Confessio philosophi* of 1672.

¹⁷ "Demonstratio ex eo principio, quod in corporibus nulla sit origo motus" (A VI, 1, 494).

¹⁸ *Confessio naturae contra atheistas*, GP IV, 108–109: "[...] cum corpora motum habeant, non singula ente incorporali, sed a se invicem."

¹⁹ The prime mover causes the movement of other things as a final cause and not as an efficient cause: it is the purpose, the end of the moving. For Aristotle, an efficient cause imprinting motion onto the world would itself be affected by that movement or push, which it cannot since it is an unmoving cause, Aristotle (1910–1952), *Metaphysics*, book Λ, 1072 a26–b4.

mechanist philosophy, conceiving the primary relation between God and the world of corporeal substances in terms of an overarching, external principle imprinting motion onto bodies. In conclusion, Leibniz rejects the traditional Scholastic interpretation of substantial forms both on the count of their unnecessary multiplication and because mind-like substantial forms which would enable bodies to move through themselves, without an incorporeal mover outside of them, would shut off the proof of the existence of God as Prime Mover (A II, 1, 11).

On the other hand, in his 1669 program-letter on natural philosophy,²⁰ discussing the origin and generation of forms, Leibniz reiterates the Scholastic *dictum* that forms have to be “educed from the passive power of matter” and not directly from the active power of God.²¹ Leibniz condemns those who, like Scaliger, Sennert or Sperling, believe that forms are created not from the passive power of matter, but from the active power of the efficient cause (A II, 1, 14). This, he argues, would imply that God is the prime matter of all things and that, furthermore, extended, physical matter would act through itself *qua* matter. Both these consequences are unacceptable for Leibniz, since he claims that the pre-existing matter, from which substantial forms are derived, is a non-being – purely passive (and objective) potentiality (A II, 1, 16). The unnecessary multiplication of substantial forms is an ontological blunder of which Scholastics and contemporary *novatores* are equally chargeable: countless incorporeal entities glued onto the extended body of each substance would risk introducing thought into matter and leading to a divinization of nature.²² Both his attempt at construing a valid, reformed mechanistic philosophy (against and with the *novatores*) and his adherence to the tenets of a nominalistic ontology that back it up, explain why Leibniz gave up substantial forms early on, after his essay on transubstantiation.

In 1668 Leibniz was keenly interested in keeping substantial forms, but to this purpose he had to use an opposite strategy to that of the *neo-Scholastici*, the liberal Jesuit (and mostly Spanish) Scholastics of the Counter-Reformation. Despite the reference to the common Scholastic adage *actiones sunt suppositorum*, Leibniz subverts the medieval concept of substantial form by conceiving it in a much more Neo-Platonic than Aristotelian way. Forms assume ontological reality only as instruments of God’s own action, since bodies have to rely on their direct enactment of divine ideas for both their potentiality towards motion and the principle of activity of said motion.²³ There is even a slight imprecision in Leibniz’s recourse to *actiones sunt suppositorum*: his argument that the substance or being subsisting by

²⁰ It is worth noting that Leibniz chose to publish the text of this 1669 more extended letter as an Appendix to his own *Dissertatio preliminaries* to Marius Nizolius’ *De veris principiis et vera philosophandi* (republished in 1670).

²¹ The “eduction” of forms from the passive power of matter was a theory held by the majority of medieval philosophers, Aquinas in particular, but also sixteenth century textbook authors, such as Franciscus Toletus and Benito Pereira.

²² A II, 1, 22: “Ita reditur ad tot deunculos, quot formas substantiales [...]”

²³ Divine ideas are the substance of things: “Ideae Dei et Substantiae rerum sunt idem re [...]” (A VI, 1, 513).

itself, taken individually, is the support for the accidents and actions belong to these supports.²⁴ Generally speaking, the majority of substances are considered to be *supposita*. In *On Transubstantiation* the difficult issue that Leibniz's explanation of the Eucharist has to face concerns Christ's body, its corporeal substance. The substance of the body of Christ is not a *suppositum*. His divine nature is, because this corporeal substance subsists in the person of the divine *logos*. If in order to show that substances have a principle of action within themselves Leibniz makes all substances *supposita*, the immediate unwanted consequence would be that he is submitting to Nestorianism while attempting to explain transubstantiation, allowing two persons in Christ.²⁵ Yet, there are other reasons which, given Leibniz's choice for a principle of individuation in 1668, make his explanation of transubstantiation turn out to be even more problematic. First, he has to explain the temporality and succession of forms and second, to find a way of reconciling his account of transubstantiation *via* substantial form with one of the basic principles undergirding the "provisional" nominalism adopted in the Preface to Nizolius (1670), where he rejected the existence of universals, forms, and real qualities.

In *De transubstantiatione* (1668), Leibniz had stressed his continuity with the Tridentine Council with regards to defining substance, accidents, species and transubstantiation.²⁶ The Council of Trent stated that, given the unique and miraculous nature of transubstantiation, the operation it involves cannot be explained in terms of similar natural transformations or transmutations. Since in the Eucharist a part of common matter is "consecrated", transubstantiation involves a complete conversion: as striking as it may seem on a sensible level, the substances of both bread and wine disappear entirely.²⁷ As a consequence, examples of physical transformation such as natural accretion (in food digestion)²⁸ or fermentation (the transformation of wine into vinegar), are not considered adequate in conceiving transubstantiation. Complete conversion is a conversion not only of the substantial form of a substance into the substantial form of another substance, but also a change of matter: from the matter of the bread and wine to the corporeal substance of Christ's body. Thus, this conversion cannot be defined as a mere variation or succession of substantial form, but as a change occurring in the corporeal substance or matter of things. The matter and form of the species make a complete passage into the corporeal substance of Christ. It is unclear how the succession between God's general concourse and Christ's concurrent mind could represent a viable solution in explaining

²⁴ That is, according to the Aristotelian-Thomistic dictum. "Nam Ens per se subsistens seu substantia hæc vel illa in individuo sumta est Suppositum. (Scholastici enim in usu habent Suppositum definire individuum Substantiale). Iam actiones sunt Suppositorum" (A VI, 1, 497).

²⁵ The conspectus of *Catholic Demonstrations* included, in its 3rd part, a chapter on the Augustinian *congruentia incarnationis* and a reference to Saint Anselm's *Cur Deus homo*. The next chapter, on incarnation, was planned: "contra Arianos et Nestorianos" (A VI, 1, 497).

²⁶ *Scholia*, A VI, 1, 510.

²⁷ *Catéchisme du Concile de Trente*, Marbeau-Charpentier (1923), II, XIX, 1.

²⁸ In the first fragment on the Eucharist from 1668, Leibniz had specifically criticized Thomas White's analogy between transubstantiation and *augmentatio*: A VI, 1, 501.

transubstantiation, since in this case, Leibniz's particular choice of an individuating principle for inanimate bodies involves the risk of drifting dangerously close to pantheism and conceiving God as a world soul. The significant issue here is theological more than metaphysical; it involves ascribing to non-human corporeal substances like the Eucharistic bread and wine not yet informed by the mind of Christ, ideas-forms that share the same separate status with God's concurrent mind: accidents and species *sub specie aeternitatis*.

Secondly, what is the ontological status of accidents in a non-realist, nominalist ontology whose main assumption, among others, is resolutely anti-Platonic: do only individual substances exist? In the *Isagoge*,²⁹ Porphyry gave a dual definition of accident, leaving open the possibility that accidents could possess an existence or reality separately from substance. Some accidents (like "sleeping", in the case of man) are separable, while others (the "being black" of a raven) are inseparable. Following this definition, the nominalist tradition had tried to redefine accidents according to the metaphysical presuppositions of its own singularist ontology. Ockham's *Summa Logicae* (1975, 102–104) put forward four different meanings of accident: first of all, the accident is something really inhering in a substance the way "heat really inheres in the fire and whiteness in wall." In this sense, an accident is something which cannot be subtracted from its underlying subject without corrupting or annihilating it. In its second influential sense, accident would be a predicable and thus it would not amount to something absolutely inseparable from the subject, but would attach itself to different substances. In this latter meaning, an accident could be separable (at least through the power of God) or inseparable from its subject. The nominalists, including Ockham, share a common task in proving that this second meaning of accident only possesses a mental reality and that accidents only exist in nature as inherent to substances. The issue of the separability of accidents on a natural level is an authentic *cul-de-sac* for Nominalist ontologies as it is for Leibniz, who adopts the first understanding of the concept of accident, one that is intimately related to his conception of individual substance. If accidents are just modifications of their respective substances, inherent to and inextricably bound to their subjects, then they can have no existence outside these substances; a separated accident would merely be an abstract thing with no reference to the things themselves. It is difficult to see not only how Leibniz would reconcile this view with the separability of accidents – the *sine qua non* condition for any eligible explanation of the Eucharist in an Aristotelian-Thomistic framework – but also with the manifestation of these accidents under the form of the species at the sensible, phenomenal level.

In both the notes annexed to *On transubstantiation* (A VI, 1, 513) and in a closely dated text on hypostatic union (*De incarnatione Dei seu de unione hypostatica*, 1669–1670), Leibniz seems to argue that the Scholastics have uselessly complicated their explanations of transubstantiation and hypostatic union, notions he had re-grounded on the presupposition of God's mediated action through minds or substantial forms. Right after his rejection of substantial forms in the letter to Thomasius

²⁹ Porphyry (1998, 15), *Isagoge*, V, 1.

(26 September/6 October 1668) and the preface to Nizolius (1670), Leibniz once again dismisses substantial forms, this time in the context of finding an appropriate philosophical solution to the problem of resurrection. Surprisingly enough, in the first part of his paper “On the resurrection of body” (1671), Leibniz claims that atomism could cope with bodily identity problems related to resurrection better than hylomorphism. He takes into account the Scholastic view of matter and form, but does not consider that it provides an adequate framework to explain the resurrection of the same body: “For since the Scholastics think that the essence of each thing consists in matter and a certain substantial form which is extinguished by the corruption of the thing and since they assume that there is no return from privation to possession, they have been unable to grasp how the same flesh can return.” (A II, 1, 183). There is no return from privation to possession – *a privatione ad habitum non dari regressum* – yet again the problem of the temporality, duration of substantial forms, is particularly problematic in the case of bodily resurrection. Leibniz invokes here another Scholastic *dictum*, based partly on Aristotle’s *Metaphysics*, book H, 1044 b34–1045 a6 and found in the works of thirteenth century Thomas Aquinas and Roger Bacon.³⁰ The *reditus* or return principle states that privation and habit subsist differently and are as opposed as affirmation and negation are. As a consequence habit can change into privation, but not the other way around: a blind man, Aristotle says, cannot recover sight.³¹ What is deprived of substantial form cannot regain it: no natural thing can be restored with numerical identity in the event that it undergoes corruption or annihilation. In order for numerical identity to be restored something other than substantial form is needed.

As evidenced by the previous passage as well as the fourth fragment on transubstantiation (1671) and its general rejection of the “fictional and monstrous entities” of the Scholastics (A VI 1, 516), whatever its meaning for Leibniz, substantial forms tend to disappear from his vocabulary after 1671.³² All the difficulties implied in postulating substantial form as a principle of individuation lead to Leibniz’s radical departure from the common Scholastic, internal principle of individuation in the *Confessio philosophi* (1672–1673): identifying *haecceity* as the principle of individuation consisting in the external spatio-temporal circumstances. Leibniz further emphasizes the distinctiveness of his interpretation and his break with Scholasticism by having his interlocutor assert: “You speak of astounding things, which, I believe, have not come into the mind of any Scholastic even in a dream, but which, nevertheless, no one can disavow, for they are taken from practical

³⁰ Aristotle also exposes this principle in the 10th book of his *Categories*. For a detailed analysis of the use of this principle as a weapon against atomism, see Newman (2006, 50–54; 104–105; 115–116).

³¹ Aristotle (1910–1952), *Categories*, X, 13 a 17.

³² Even though his reflection on the *Elementa de Mente* and *de Corpore* continues to develop (as announced in the 1668–1669 plan of the *Catholic Demonstrations* – A II, 1, 175–176). This also raises doubts whether anything like a primitive theory of complete concepts is developed at an early stage in Leibniz’s thought.

experience.”³³ He also starts his discussion by distancing himself from the traditional way of posing the problem: “This question seems difficult, but more because of the tortured manner of asking the question, than from the nature of the problem. It touches upon the very thorny consideration of the *principle of individuation*, that is, of the discrimination of things differing solely in number.” The example Leibniz uses is that of two eggs similar in every way such that not even an angel can observe a difference; he asks “yet who can deny that they differ?” and replies:

At least they differ in this: that one is this one, the other, that one, that is, they differ in *haecceity*, or because they are one thing and another thing, i.e., because they differ *numerically*. But what do we mean when we count, that is, when we say *this* (for to *count* is to repeat *this*). What is *this*? What is it to determine something? What is it except the perception of time and place, i.e., of motion either, on the one hand, of a given thing in relation to us or to a thing already determined, or, on the other hand, of our own movement (e.g., the motion of our hand or the finger by which we point), or the motion of some already determined thing, like a stick, in order to point to a given thing? There you have it, what may amaze you, the principle of individuation, outside the thing itself. For between these eggs no difference can be assigned either by an angel or, I have the audacity to say, by God (given the hypothesis of the greatest similarity possible) other than that at the present time this one is at place A, and that one is at place B. (Sleigh 2005, 103)

In the 1663 *Disputatio*, confronted with both Scotism and nominalism, Leibniz had interpreted Scotus’ *haecceitas* as a formalistic element (privileging form over matter).³⁴ Later reinterpretations of the concept seem to insist on its realistic elements: identification with quantity or synonymy with numerical difference consisting in the perceptions of time and place (*sensus temporis et loci*).³⁵ The originality and directness of the *Confessio* consist in Leibniz’s commitment to the idea that the principle of individuation of a thing is not internal to itself.³⁶ Thus he accepts

³³ Sleigh (2005, 104–105). The paragraph continues: “For no man reasons otherwise when he must distinguish things that are entirely similar.” Leibniz’s distancing himself from the Scholastics in the *Confessio* takes on greater import when one considers his deep knowledge of Scholasticism, knowledge he himself is proud of. In a 1678 letter to Herman Conring, Leibniz felt he needed to defend himself against the accusation that he simply did not know any Scholastic philosophy: “You say that my estimate of the Schoolmen’s metaphysics would be more favorable if I had read them.” Leibniz responded: “Yet I esteemed [the Schoolmen’s metaphysics] most favorably, for I had written to you, if you remember well, that I believe many excellent metaphysical demonstrations are to be found in them which deserve to be purged of their barbarism and confusion. And I could not have said this if I had not wanted you to believe that I had read them.” Leibniz claimed that he had examined the writings of the Scholastics, and done so even “more immoderately and eagerly” than his teachers approved, so that they “feared that he would cling too tightly to these rocks.” He also claimed that when he began to study philosophy at the universities he made “some original and profound comments” on Scholastic topics, such as “the principle of individuation,” and he “never since regretted having sampled these studies” (GP I, 197–98; L 190).

³⁴ A, II 1, 16: Leibniz introduces the 13th c. medieval distinction between the form of the whole and the form of the part, while considering haecceity to be “more like form since it contracts and distinguishes.”

³⁵ *Confessio philosophi*, A VI, 3, 147.

³⁶ The concept of *haecceity* will further evolve up until the period of the *Discourse on metaphysics* and afterwards, when Leibniz would define individuals as *haecceities*: “where there is space and time.” *De divisione praedicati*: “Individualia seu haecceitates ubi locus et tempus” (A VI, 4A,

a radically reconsidered notion of *haecceity* and does not fully embrace a complete concept view of substance or the identity of indiscernibles.³⁷

In the Parisian period, once Leibniz advances his criticism of Descartes' theory of extension and expounds upon the concepts of space and time as mere relations or orders of coexistence and non-simultaneity, the external spatio-temporal individuating circumstances will be ready to be internalized, as contained in their complete concepts.³⁸ We can see the beginnings of Leibniz's more mature view encompassing the thesis that two substances cannot resemble each other completely and differ only in number in an essay from 1676 entitled *Meditatio de Principio Individui*. There Leibniz considers two rectangles or two triangles coming to constitute two indistinguishable squares, as an example of different causes producing an effect that is perfectly the same. Of his two squares Leibniz asserts "neither of these can be distinguished from one another in any other way, not even by the wisest being." Based on the principle that the effect involves its cause "in such a way that whoever understands some effect perfectly will also arrive at the knowledge of its cause," Leibniz argues that "if we admit that two different things always differ in themselves in some respect as well, it follows that there is present in any matter something which retains the effect of what precedes it, namely a mind." Thus, for matter to be individuated, it has to be connected to a mind that will retain the memory or traces of its construction. Leibniz concludes: "This argument is very fine and proves

927). Thus Leibniz reinstates the Scotistic principle of *haecceitas* in an un-Scotistic fashion, as quantity, understanding the latter in a vaguely realistic sense, as the true "principle of individuation" for physical beings. He states, as definitions in another 1672 essay: "Quantitas est modus, quo res cogitator determinate, aut potius quo res cogitator tota. [...] Seu quantitas est ipsa haecceitas, qua res cogitator haec. Qualitas est modus, quo res cogitator mutabilis seu posse agree et pati. Quo res cogitator cum relatione non ad sensum, sed intellectum. Quantitatis enim est conceptio relationis rei ad sensum. Hinc ratio patet cur sola ex accidentibus quantitas auferri non possit, continet enim ipsam rei haecceitatem" (A VI, 2, 488–489). This kind of conflation between haecceity and quantity, or haecceity as the spatio-temporal circumstances which individuate a substance (in the *Confessio philosophi*, 1672–1673) brings to mind the Neo-Platonic residues in the final corollaries of the *Disputatio*, where Leibniz considers that the essences of things are like numbers or that matter possesses its own *actus entitativus* and is *realiter* identical with quantity. It might be interesting to see, in this regard, what influence Erhard Weigel, Leibniz's other philosophy teacher, might have had on him; see Piro (2005, 10).

³⁷We can now reaffirm the inference that Leibniz did not hold the complete concept view of substance and the identity of indiscernibles in 1663.

³⁸Leibniz's critique of extension is yet again concerned with temporality. Extension is not a constituent element of things, but the diffusion, extending of one thing. Leibniz believes there is a central difficulty in Descartes in conceiving the relationship between substance (to which extension is an attribute) and duration (which is but a mode). Extension cannot account for substance since it is temporally bound to the present and merely sequential: it reflects only a precise moment in the successive state of things, as a sequence in the development of phenomena. Therefore it cannot account for all present and future states or developments of a substance. This is where the need for the internalization of spatio-temporal individuating accidents (*Confessio philosophi*) and something of a mind-like nature, endowed with memory and a history, intervenes. This temporal aspect of substances will be later fulfilled by the concept of force: derivative force both *is* and expresses the present state of a substance. Force expresses the present state of a substance by being the link between its past states and its future ones.

that [...] we cannot think of anything by which matter differs, except by mind. [...] This principle is of great importance.”³⁹ Of course, the mind Leibniz is referring to could be either inside or outside the thing, a universal soul or a mind, individual soul, substantial form, or individuating form, that is, a *haecceity*. Leibniz chooses to locate the principle of individuation inside the thing and thus derives something like the identity of indiscernibles: “unless we admit that it is impossible that there should be two things which are perfectly similar, it will follow that the principle of individuation is outside the thing, in its cause.”⁴⁰

In the 2-year period between 1670 and 1671 the concept of substantial form is overshadowed. The concept of mind and its interpretation through indivisibles or points takes its place. Although between 1672 and 1676 Leibniz had not yet developed an elaborate physical theory, an idea guides his Parisian writings: matter is always connected to mind, held together by a mind or a mind-like substance; it only exists in virtue of a relation to mind.⁴¹ It is after this fruitful period of confrontation with Cartesianism that the views Leibniz had developed on mechanics in his physical theories of *Theoria motus abstracti* and *Hypothesis physica nova* (1671) became subject to a drastic revisionism. This revision of his first physical theories was initiated after the Parisian period and his return to Hanover through a reconsideration of the laws of motion between colliding bodies. In 1676 (in *De Arcanis motus* and *Meditatio de Principio individui*), Leibniz believes he has arrived at a possible solution in reconciling the empirical laws of motion and an *a priori* principle of conservation: this “Ariadnic thread” was the regulative principle of the equipolence between full cause and entire effect. The *Meditation on the Principle of the Individual* (1676) is particularly important not only because it gives an overview of Leibniz’s views on individuation at a crucial time, but also through the fact that the text itself is an early formulation of the principle of equivalence between full cause and entire effect, equivalence which is maintained through phenomenal changes. Leibniz’s mature view about individuation also develops through the revival of the Aristotelian concept of primary substance and a reinterpretation of the Thomistic angelic principle of individuation as *species infima*. In the *Discourse on Metaphysics*, the individual for Leibniz corresponds to the Scholastic last species he had declined

³⁹ A VI, 3, 491; also Parkinson (1992, 51–53).

⁴⁰ Leibniz, A VI, 3, 491; Parkinson (1992, 51). The argument is repeated as late as 1685 in Leibniz’s “Notes on Cordemoy’s Treatise *On the Distinction between Body and Mind*,” as a criticism of Cordemoy’s atomist solution to the Cartesian problem of individuation; although he appreciated Cordemoy’s criticism of Cartesianism, Leibniz thought Cordemoy had not gone far enough with his solution. As Leibniz said, “These are difficulties for Cordemoy himself: let us suppose two triangular atoms come into contact and compose a perfect square, and that they rest next to each other in this way, and let there be another corporeal substance or atom, a square one equal to the other two. I ask, in what respect do these two extended things differ? Certainly no difference can be conceived in them as they are now, unless we suppose something in bodies besides extension; rather they are distinguished solely by memory of their former condition and there is nothing of this kind in bodies” (A VI, 4, 1799; Arthur 279). The example of the two triangles, reconsidered in three dimensions, continues to play a role in Leibniz’s thinking even in the 1690s, in an argument against atoms separate from the issue of individuation (see GP VII, 284–85).

⁴¹ See, in particular, his *Notes on Science and Metaphysics* (18 March 1676, Arthur 55).

to discuss in the *Disputatio*. Its particularity is that each individual is, in itself, its own last species – not an exemplar of a specific essence, but a unique one with all its accidents. Leibniz's main originality is that to this individual essence or last species there corresponds a complete concept.

We have traced Leibniz's views on individuation from 1663 to 1686. We can say without equivocation that the only constancy about individuation during these years is Leibniz's willingness to change his mind completely about a host of issues, as he works through various problems of disparate provenance and adjusts his thinking accordingly, using one result in one domain against another in another domain and then reversing himself, repeating the process.

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Forms

Between Continuity and Transformation

Nita, A. (Ed.)

2015, XII, 176 p., Hardcover

ISBN: 978-94-017-9955-3