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Scaliger, Julius Caesar



Born: 1484 (no documented place of birth)

Died: 1558, Agen

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Abstract

Julius Caesar Scaliger is an Italian physician who practiced medicine in Agen and produced a highly diverse literary output that documents both his interest in humanistic studies and in Aristotelian natural philosophy. He is one of the foremost Renaissance scholars on literary history and theory, produced massive commentaries on ancient botanic and zoological works, and authored a 1000-page critique of Girolamo Cardano's natural philosophy. As far as matter theory is concerned, Scaliger combines the traditional doctrines of minimism – the view that substantial forms require a minimal portion of suitably structured matter – and “Latin pluralism” – the view that composite substances such as living beings possess a plurality of substantial forms standing in relations of subordination – with numerous corpuscularian explanations of natural phenomena derived from the corpuscularian aspects of the Aristotelian *Meteorology*. However, Scaliger also departs from a central tenet

of the Aristotelian tradition, namely, the view that ascribing essences to living being implies that plants and animals cannot give rise to beings of a different biological species. Contrary to species fixism, Scaliger argues that the conception of a plurality of substantial forms in the bodies of living beings could provide an explanation for how, in singular cases, living beings can arise that belong to a species that did not exist before.

Biography

Julius Caesar Scaliger was a kind of impostor who managed to become one of the leading members of the republic of letters of his age. He is famous for his probably entirely confabulated curriculum vitae according to which he belonged to the noble family of the Scaligers of Verona and had studied with five of the most famous philosophers of his time (see Hall 1950). None of his biographical claims is confirmed by any extant documents (see Kristeller 1952), and ever since his lifetime there has been detective work going on to discover his real identity (see Richards 1962; Billanovich 1968). All that seems to be reasonably certain is that, after around 1525, Scaliger practiced medicine in Agen and produced a literary output that was both wide-ranging and influential. He composed one of the most highly regarded sixteenth century studies of Latin grammar (Scaliger 1540; see Jensen 1990a, Chap. 5),

wrote Neo-Latin poetry (Scaliger 1533, 1546, 1574), reflected about wisdom and happiness (Scaliger 1573), attacked Erasmus's adoption of Cicero as a universally valid literary model (Scaliger 1999), and speculated about the interpretation of dreams (Hippocrates 1539; see Haugen 2007; De Smet 2008). The philological side of his work was very prominently continued by his son, Joseph Justus (1540–1609) (see Grafton 1983).

Heritage and Rupture with the Tradition

Philological and philosophical interests come together in Scaliger's works on poetics (Scaliger 1539, 1561, 1994–2011). One aim of these works was to provide practical guidance for the production of poetry and drama through an extremely detailed analysis of the techniques of rhythm, verse, and figures of speech in classical Latin and Neo-Latin works. Perhaps the most innovative aspect of the *Poetices libri septem* consists in its pioneering contribution to several fields in the liberal arts that were beginning to emerge in Scaliger's time: literary history, comparative literature, and literary criticism. As to literary history, he develops conjectures concerning how poetry developed out of aspects of the popular culture of ancient Greece (see Bizer 1994). As to comparative literature and literary criticism, he compares works from ancient Rome with Neo-Latin poetry of his contemporaries, often in a highly subjective and opinionated way (see Reineke 1988). When it comes to the philosophical tenets of his poetics, most of what Scaliger says turns out to be derivative upon Aristotle's *Poetics*, Horace's *Ars Poetica*, and Marco Girolamo Vida's *De arte poetica* (Vida 1527). With Aristotle, he shares the view that the imitation of nature is central for art in general and for poetry in particular (see Brinkschulte 1914, 46–51). With Aristotle and Horace, he shares the view that for portraying the essential qualities of humans a certain idealization of characters is required. In his view, what has to be observed is the coherence or "harmony" of characters, which at the same time has to remain within the limits of what will appear

psychologically plausible (see Brinkschulte 1914, 51, 83–85). With Vida he shares the view that giving a depiction of idealized nature works best by imitating Vergil, whose representation of reality Scaliger regards as a "second nature" (see Rolfes 2001, 204–207). In one respect, however, Scaliger moves beyond his sources, as Walter Benjamin has emphasized (Benjamin 1972, 98–99). While Scaliger shares Aristotle's view that art is a disposition that is directed toward the goal of acting (Aristotle 1968, 1140a10; Scaliger 1994–2011, 2:78), he ascribes to affects a role that is not found in any of his sources: "The poet teaches actions through affects, such that we may embrace the good ones for acting and detest the bad ones with a view to abstaining from action. Hence, the action is a way of teaching the affect, which is taught for the purpose of acting. Therefore, the action will be . . . an exemplar or instrument in the fiction, the affect a goal" (Scaliger 1994–2011, 5:500).

In natural philosophy, Scaliger produced massive commentaries to the pseudo-Aristotelian *On Plants* (Scaliger 1556), to Theophrastus's *On the Causes of Plants* and *Natural Histories* (Scaliger 1566, 1584), as well as a translation of and commentary to Aristotle's *History of Animals* (Scaliger 1619; see Jensen 1986; Perfetti 2000, 155–181). His masterpiece, the *Exoteric Exercises* (1557), is a 1000-page book review of Girolamo Cardano's encyclopedic *On Subtlety* (1550). In spite of its chaotic organization, Scaliger's book was widely used in the Protestant university curriculum (see Jensen 1990b) and triggered two book-long responses by the Marburg-based philosopher Rudolph Goclenius (see Goclenius 1594, 1599). In the *Exoteric Exercises*, Scaliger develops a version of corpuscularian Aristotelianism that proved to be an important step toward the corpuscularian philosophy of the seventeenth century. This aspect of his thought can be documented in two fields that he discusses in detail: the theory of matter (see Emerton 1984, 90–102; Lüthy 2001; Blank 2008; Sakamoto 2016) and the theory of biological reproduction (see Blank 2010, 2012). Scaliger's philosophical writings also contain some remarks concerning traditional topics in philosophy of language. For

instance, he adopts the medieval theory of mental signs to explain the origin of the signification of linguistic signs, as well as the nominalist view according to which universals are the result of a process of abstraction from particulars (see Jensen 1990a, Chap. 4). One also finds sketchy remarks concerning the philosophical interpretation of the Trinity, where the divine intellect, divine self-reflection, and divine self-love are understood as the three aspects that can be distinguished in the divine being (see Sakamoto 2010).

Innovative and Original Aspects

Arguably, Scaliger's greatest significance for the history of philosophy lies in his contribution to natural philosophy. In this field, he uses the traditional idea of minimism, according to which natural minima are a lower limit of matter beyond which a given form cannot be maintained (Scaliger 1557, fol. 28v; on minimism, see Emerton 1984, 90–91). Scaliger suggests a minimalist definition of mixture, when he writes: "mixture is the motion of the minimum bodies so that union is achieved" (ibid., fol. 143v). He argues that experiment shows that there are mixtures of heterogeneous substances which turn out to be inseparable from each other (ibid., fol. 148v). The conclusion that he draws is ingenious. On the one hand, he maintains that in mixture minimal parts form a continuum. On the other hand, since in the case of heterogeneous substances the forms of the minimal parts are different from each other, he suggests that in the most basic cases (such as the mixture of water and wine) the constituents of the mixture retain their numerical identity since they retain their form, even if they give up their boundaries (ibid., fol. 144rv).

Even if his *minima* thus do not behave in a fully corpuscularian manner, Scaliger derives corpuscularian explanations of the other phenomena from the Aristotelian *Meteorology*. For example, Scaliger mentions a passage from the second book of the *Meteorology*, according to which hot vapors of water get colder by getting mixed with cold particles of air (ibid., fol. 20r; see Aristotle, *Meteor.* II, 2, 354b24–33). Similarly, he points out

that, according to the first book of the *Meteorology*, the parts of the world are one not by means of continuity but by means of connection (*coaptatione*), in the sense that the supralunar bodies are efficient causes the effects received by the sublunar bodies (Scaliger 1557, fol. 19r; see Aristotle, *Meteor.* I, 2, 339a11–24). Scaliger also proposes a corpuscularian explanation of the phenomena occurring when a piece of lime is immersed partly in water. As he argues, water rises in lime beyond the level of the water into which the piece of lime is immersed; hence the air included in the upper part of lime is already in the sphere of air (Scaliger 1557, fol. 9r). Scaliger distinguishes between attraction (*tractio*) and succession (*subitio*). According to his view, attraction happens by means of an external force. This, however, is not what happens in cases such as water rising in lime. Rather, "a body that succeeds another body (such as a particle of water succeeding a particle of air in the pores of lime) is moved by an internal form of its own . . . , namely, a secondary one, such that no vacuum occurs. For elements not only strive towards their own WHERE, but they enjoy themselves outside their natural place, such that in order to avoid serious harm for the universe the place at which they are is not occupied by the most terrible enemy. In fact, nothing is more hostile to being than nonbeing. But vacuum is a non-being" (ibid., fol. 25r). Hence, bodies are not only preserved by their form, they also move due to their form in a way such that no vacuum occurs.

Puzzlingly, however, Scaliger also claims that "[i]n nature a vacuum exists necessarily. For otherwise, either there would be no motion or one body would penetrate the other" (ibid., fol. 6v). Did he hold inconsistent views concerning the existence of a vacuum? Clearly, he rejects the idea that matter is interspersed with micro-*vacua*, as is indicated in his discussion of the phenomena of rarefaction and condensation. On the level of elements, Scaliger embraces an Aristotelian conception of rarity and density according to which rarity and density are contrary qualities that, at different times, can be possessed by the same portion of matter. By contrast, there is a strongly corpuscularian strand in Scaliger's

conception of rarity and density on the level of composite bodies. He holds that a body is rare if between its parts there are parts of another, less solid kind, like air or water in a sponge (*ibid.*, fol. 112r). Consequently, he makes it clear that he does want his notion of vacuum be understood “in the way of the Ancients”: “For they supposed a vacuum without body. But we maintain a vacuum in which there is a body. Vacuum and place are the same: and they do not differ except with respect to the name” (*ibid.*, fol. 6v). As he explains, place “is in some way a being, and in some way a non-being. It is a non-being, because a being is contained there; and it is a being, because it is something that belongs to something else, namely, a cavity within a body” (*ibid.*, fol. 7r). Thus, although Scaliger embraces a theory of container space, he also thinks that portions of space are always occupied by some portion of matter or other.

Scaliger uses the idea that the forms of constituents of mixtures remain intact even when elements have formed a physical continuum in his theory of biological reproduction. According to his view, some processes of biological reproduction can be understood within the theory of species fixism that was traditionally understood to be a consequence of Aristotle’s views on the essences of living beings (see Hull 1965). At the same time he holds that, in some cases, new biological species can arise. According to his analysis of the former kind of processes, “things that already exist are mixed: such that they will not be inwardly and simply new; for they are made out of those that already exist, as it were, as out of parts: which we see happen in graftings which did not exist before” (Scaliger 1557, fol. 319v). Unfortunately, Scaliger never discusses what is going on in grafting in much detail. However, there is a related case, which he also conceptualizes in terms of “mixture,” namely, the crossbreeding of animals. His account of crossbreeding is firmly placed in the context of his conception of a plurality of substantial forms in each living being. In this respect, he takes up a long tradition from medieval philosophy that is sometimes called “Latin pluralism.” According to the basic insight shared by the members of this

tradition, in each living being there is a single dominant substantial form and a large number of subordinate substantial forms that actualize subordinate body parts. Scaliger understands the subordination relation as a relation of final causation (*ibid.*, fol. 144v). Some material objects and some forms are less “noble” than others because they are made for the sake of other material objects and other forms. With respect to the structure of living beings, the picture that is suggested by this passage would be the view that bodily organs such as a nose or an eye, as well as their respective forms, are less “noble” than the entire body of the living being and its soul because they are made for the sake of the entire body of the living being and its soul. In this sense, subordinate forms that are all teleologically directed towards the dominant forms can be said to be “mixed” and to form a unity (*ibid.*) (On Scaliger’s psychology, see Giglioli 1999).

The second sense in which, in Scaliger’s view, the possibility of new species can be understood is meant to go beyond the newness that can be achieved by grafting. According to this second sense, new species “are in the potency of an agent . . . For a rose can be produced which did not exist before. But there is always something there, because it is in the potency of the rose bush” (*ibid.*, fol. 319v). Unlike the plants arising from grafting, such a plant belongs to a species that is “simply” and “inwardly” new; but nevertheless such plants are characterized as the result of something that is “already there” in the potency of an existing plant. The example given by Scaliger is certainly bewildering because, from a contemporary perspective, a new variety of rose would not be a plausible candidate for a new species. Nevertheless, even if the example is chosen inconsiderately, what Scaliger has in mind is the question of species membership. In his view, the question “[w]hether new species, which never before existed, can be generated?” boils down to the question “[c]an a new form arise that shapes matter for its own purposes?” (Scaliger 1566, 16). Species change, in his view, takes place when water-mint changes into mint (*ibid.*). As he explains: “When mint changes into water-mint, or vice versa, this happens due to the affinity of

forms; and if the species differs also matter differs” (Scaliger 1557, fol. 386v). Commenting on Theophrastus, he takes darnel to be a case in which a plant of one species has its origin in the corrupted seed of a plant of a different species (Scaliger 1566, 230). The corrupted seed no longer carries the form of the plant from which it originated. But it is also not altogether different from the form of the plant from which it originated. It seems most plausible to understand these claims in the context of Scaliger’s conception of a plurality of substantial forms in living beings. If this is what Scaliger has in mind, what underlies his account of species mutability is the view that domination relations between substantial forms can break down such that a previously subordinate form becomes the substantial form of a new living being.

Cross-References

- ▶ [Generation](#)
- ▶ [Girolamo Cardano](#)
- ▶ [Organism](#)
- ▶ [Seed Concept](#)

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