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## Liceti, Fortunio

**Born:** 1577, Rapallo

**Died:** 1657, Padua

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### Abstract

Liceti is the last of the great Paduan Aristotelians. His extensive works cover all areas of natural philosophy, and while Liceti is always careful to give full expositions of the diverging strands of Aristotle interpretation on any given subject, he does not hesitate to use traditional conceptual frameworks to develop innovative theories. One example for this is his conception of rational souls as immaterial but quantitative, extended beings. To explicate this conception, he uses an analogy between rational souls and the theory of light developed by the eclectic medieval natural philosopher Albert the Great, who argued that the dependence of light on a source from which it arises through emanative causation renders light existentially independent from the medium that it illuminates. Another innovative aspect of Liceti's thought can be found in his version of the traditional theory of spontaneous generation. Unlike any thinker before him, he held that the substantial forms of living beings arising through

spontaneous generation could be understood as material structures that arise through the completing of previously existing, but essentially different material structures.

### Biography

Fortunio Liceti is an eclectic Aristotelian natural philosopher who held professorships in philosophy at the Universities of Pisa (from 1605), Padua (from 1609), and Bologna (from 1637) and took up a chair in theoretical medicine at the University of Padua in 1645. His intellectual autobiography (Liceti 1634) lists 24 published books, some of them very extensive, as well as 25 unpublished book manuscripts, some of which were published afterwards (see Lohr 1978, 540–541; Ongaro 2005). His writings cover all fields of natural philosophy, with a particular emphasis on biological and medical issues (for overviews, see Ongaro 1964, 1965). In particular, he is the author of a widely cited work on monsters (Liceti 1616b; see Céard 1977, 442–447, 451–456; Hanafi 2000, 34–47). From a philosophical point of view, two of his most original contributions relate to the theory of spontaneous generation (see Castellani 1968; Hirai 2007, sect. 3, 2011) and the metaphysics of immaterial extension (see Blank 2013). With respect to the former issue, he proposes an analysis of the notion of substantial form of spontaneously generated living beings in terms of material structures that are in a rudimentary way

present in inanimate objects and only require completion through external causes. With respect to the latter issue, he can be seen as a precursor of Henry More's famous view that immaterial beings are extended but indivisible.

### Heritage and Rupture with the Tradition

Liceti interprets Aristotle's conception of the soul as implying a dualistic conception of the human soul. He maintains that in the operation of the vegetative and sensitive parts of the human soul nothing immaterial or supernatural is involved. "For me, a human being is a natural and material body; hence, it is subject to natural passions arising out of matter, to generation and death; its soul, therefore, is generated out of matter, and is mortal . . ." (Liceti 1602, 301). At the same time, he accepts Aristotle's view that the rational soul is divine and enters from the outside (see Aristotle, *De gen. an.* II, 3, 736b27–29). Consequently, he understands the human soul as a composite being: "The intellect is not the form of the entire human nature but a part of such a form, which is the human soul, having a composite nature constituted by intellect, vegetative soul, and sensitive soul . . ." (*ibid.*, 300). Liceti maintains that material souls and organic bodies stand in a relation that he calls "co-extension." For instance, with respect to nutrition, he argues that the vegetative soul is where the operations occur, of which the soul is the primary efficient cause since, according to Aristotle, all physical action is by contact; moreover, everything that is nourished is nourished with respect to the smallest part of its body (Liceti 1616a, 12; see Aristotle, Aristotle, *Phys.*, VII, 10–12; VIII, 33; *De an.*, II, 3–4). Likewise, the sensitive soul must be coextensive with the organism because the proper functioning of the vegetative soul depends on the proper functioning of the sensitive soul (Liceti 1607, 137–138; for the role of material souls in Liceti's theory of sexual generation, see Blank 2010).

However, Liceti deviates from the traditional view that takes immaterial beings to be non-quantitative. Rather, he maintains that the rational soul, too, is coextensive with the body that that it

animates. This is so, he argues, because the proper functioning of the vegetative and sensitive parts of the human soul depends on the proper functioning of the rational faculties (Liceti 1616a, 40). Still, he takes immaterial souls, in contrast to material souls, to be indivisible. To explain why this is so, he invokes an analogy between immaterial souls and light (for his later theory of light, see Zoubov 1936). The relevant analogy makes use of a combination of ideas that Liceti derives from Albert the Great: (1) the view that light can be understood as a quality inherent in the source of light (*lux*) and (2) the view that light can be understood as a quality that derives by means of emanative causation from *lux* and is present in an illuminated medium (*lumen*) (see Liceti 1607, 68–69; Liceti 1640, 115–116). *Lumen* is an immaterial being that is extended without being divisible: "Since *lumen* in the perspicuous body is not there as an indivisible point but rather is coextensive with every dimension of the perspicuous body" (Liceti 1616a, 54). Still, due to the emanation relation between *lux* and *lumen*, *lumen* is existentially independent of the perspicuous body: "[*L*]umen is said to be external to the air whose assisting form it is since it does not depend on the air, even though it actualizes the innermost parts of the air" (Liceti 1629, 151). This is why *lumen* is not moved "through the motion of the body, and is not corrupted through the corruption of the body . . ." (*ibid.*, 167). Consequently, it also cannot be divided through the division of the illuminated body. Likewise, mental operations can be understood as emanating from the mind and, therefore, as being independent of the changes of the body that they animate.

### Innovative and Original Aspects

While Liceti's conception of immaterial extension thus can be understood as a creative application of existing theories of light to the analysis of the quantitative nature of the rational soul, Liceti's version of the theory of spontaneous generation was seen by his contemporaries as a more radical departure from all existing theories in this field. Liceti's theory of spontaneous generation shares

with many other Aristotelian positions the view that a composite substance is constituted by an organic body and a substantial form that functions as the principle of unity of the organic body. At the same time, in contrast to what everyone else held, Liceti believes that a substantial form allows for a kind of composition: “Nevertheless it does not have a simply simple nature; rather, as all souls, so the forms of mixed bodies on earth have a nature that is composed out of different essential part; . . . such that every form is essentially constituted by its genus and a specific difference . . .” (Liceti 1618, 267). He suggests that such a conception of the composition of a substantial form makes it possible to understand substantial forms as the outcome of a kind of augmentation. He argues that in matter there are “rudiments of form” that contain the generic nature of individual forms but that lack the specific differences characteristic of individual forms. As he puts it, “in matter there pre-exists a rudiment of the future form, which is the generic nature of this form, subsisting under a privation opposed to the form; the efficient cause of the form that adds the specific difference of form is said both to constitute form and to bring about generation” (ibid., 266). Liceti is careful to point out that “[t]his rudiment of form is not truly a form but rather its generic nature” (ibid.). In Liceti’s view, the task of the efficient cause of spontaneous generation is only to add the specific difference to constitute an individual substantial form. Thus, Liceti understands what is potentially in matter as being neither a mere accident nor a complete form. Rather, he takes it to be a material structure that needs to be completed in order to be capable of acting as a substantial form. Also, the transition from the generic rudiment of form to the fully individualized form of a living being involves the occurrence of something genuinely new, thus accounting for the intuition that spontaneous generation is something other than the development of some preexisting composite that remains the same individual.

## Cross-References

- ▶ [Albert the Great](#)
- ▶ [Emanative Causation](#)
- ▶ [Monsters](#)
- ▶ [Spontaneous Generation](#)
- ▶ [Theories of Light](#)

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