

Summary

The monograph *Medieval Theories of Perception and the Activity of Senses in the Franciscan Context* inquires into an issue which has only recently become a focus for researchers into medieval philosophy: the active aspects of the perceptual process. This investigation draws on texts by three 13th- and 14th-century Franciscan thinkers: Roger Bacon (1214/1220–1292), Peter Olivi (ca. 1248–1298), and Peter Auriol (ca. 1280–1322), whose theories of sensory perception are treated in constant reference to both the medieval tradition of optics and the Franciscan framework of their intellectual development.

Chapter 1 includes detailed biographies of all three thinkers, emphasizing in particular the institutional background of their intellectual production, originating in Franciscan *studia* in Paris and Southern France, and faculties of arts and theology. The aims and genres of their texts are considered, from Bacon's Aristotelian commentaries, scientific compendia, and letters addressed to Pope Clement IV, to Olivi's disputed questions privately transformed into in-depth analyses of various philosophical and theological issues, and the written outcomes of Auriol's lectures on Lombard's *Sentences*. The methodological section argues that the philosophical problems are rather historically conditioned than perennial, as were people's interest in particular philosophical questions and the persuasiveness of the arguments and the meanings of the concepts used in answering them. Such a historically sensitive approach permits a conceptual translation of medieval theories into modern terms and a systematic consideration of their merits and weaknesses with respects to *their own* goals.

Chapter 2 introduces general attitudes to perception in the period of medieval philosophy under consideration (ca. 1250–1320). The approaches of the three Franciscans towards the issues of the nature and origin of the human soul, which had considerable consequences on designing their respective theories of perception, are delineated. While Olivi proposes a more dualist view of both rational and sensory souls as con-created and infused into the body (and hence spiritual and unextended), both Bacon and Auriol take the vegetative and sensory soul to be generated naturally from matter, and only the intellect as created. In terms of perception, medieval thinkers had three conceptual frameworks and textual authorities available: Aristotle's psychology and natural philosophy, Augustine's introspective reflections, and Alhacen's (Ibn al-Haytham's)

optics. Various conceptualizations of *active* perception emerged in medieval philosophy, both within and outside these frameworks:

- (1) extramissionist theories postulating visual rays or spirit emitted from the eyes;
 - (2) various causal activity theories (Platonic causally active power, the Augustinian theory of excitation, or an account taking the object and the cognitive power as partial efficient causes of cognitive acts);
 - (3) the postulate of agent sense (*sensus agens*) as a motor of the “spiritualization” of the form received in the cognitive power;
 - (4) theories highlighting attention as a built-in component of the perceptual process;
- or
- (5) active processing of received perceptual information by sensory discrimination or the so-called sensory judgement.

Finally, this chapter addresses genuinely Franciscan aspects of theories of perception: the conceptual invention of the *intuitio* as an immediate, non-discursive cognitive mechanism, and Franciscan encounters with Greek and Arab optical traditions from Robert Grosseteste (who, while not a member of the order himself, was hugely influential among the Oxford Franciscans), through the Parisian Franciscan convent in the 1260s–70s (Roger Bacon, John Peckham, Peter Olivi, Bartholomew of Bologna) to Duns Scotus and Peter Auriol.

Chapter 3 scrutinizes the various ramifications of medieval passive theories of perception, usually employing the notion of *species* (meaning both the causal effect of the object and its representation or similitude). First, the passive aspects of Bacon’s theory are expounded. Bacon devises a general theory of (efficient) causality as the multiplication or propagation of the *species* (or causal effects) from an agent to a passive recipient. Sensation is an instance of this causal process, with a sensible object being the agent, whose *species* is received in a sensory organ. However, as binocular perception and its distortion in the case of diplopia evidence, more is needed than simply the reception of *species*, namely, cognitive processing of this received *species*, and a sensory “judgement” (*iudicio*) performed by the *ultimum sentiens* residing in the junction of the optical nerves. Neither did Bacon advocate the Aristotelian conception of intentionality, i.e. the view, endorsed by Albert the Great or Thomas Aquinas, that the form or *species* has an intentional being (*esse intentionale*) if it does not bear the properties it transmits upon the receiving subject (the air does not actually become red upon reception of the forms of redness in intentional being). Bacon’s simultaneous acceptance of the theory of *species* and denial of the Aristotelian notion of intentionality suggests that these notions are not necessarily connected, and that the latter is not a necessary condition for being cognitive.

Secondly, Olivi’s exhaustive criticism of all possible forms of the passivity of senses is investigated. Olivi’s main argument is that the sensory power, as a part of the spiritual and unextended soul, cannot suffer a causal effect by a material and extended object. Olivi also proposes sophisticated arguments against the perspectivist variant of the theory of *species*, the theory of partial causes, and the Augustinian theory of excitation.

Finally, his conception of mental causality is introduced, according to which the body, although metaphysically inferior, may still bring about effects upon the soul. This kind of influence is however ontologically less committing than the traditional notion of efficient cause, and occurs through a natural connection (*per colligantiam*) of both entities.

The third part of this chapter deals with the passive aspects of Auriol's theory of perception. In contrast to earlier interpretations, it is emphasized that Auriol actually used the Aristotelian notion of *species* (or *similitudo*). As the experience of sensory illusions attests, however, perception is causally indeterminate, i.e. the same perceptual content might be brought about by different chains of causal effects. The simple causal influence of the object, therefore, must be completed with an active response of the cognitive power, which is realized by a sensory judgement. Nevertheless, the *species* remains a necessary component of the cognitive process. Auriol, siding with Giles of Rome, Geoffrey of Fontaines and an anonymous commentator on the *De causis*, but against Duns Scotus, identifies *species* with the cognitive act, suggesting that they differ only connotatively, but not really. The expressions "*species*" and "cognitive act" refer to the same entity, but the latter additionally connotes the cognitive content (the thing as appearing) produced and grasped when the *species*/act is in the cognitive power. Finally, although *species* is immaterial or spiritual in a way, Auriol is reluctant to ascribe an *intentional* being to it, reserving the term for his original conception of intentionality.

Chapter 4, the core of the study, investigates varieties of all three Franciscans' elaborations of the sensory activity thesis. First, it is argued that the traditional passivist interpretations of Bacon's theory of perception are unacceptable. Above all, Bacon explicitly endorses the postulate of extramission, but not of a visual spirit (as Platonists did) but a visual *species* (*species oculi* or *species visus*), since human sight, like every other entity in the universe, propagates its *species*. In opposition to the interpretations doubting this Bacon's claim as an incoherent effort to harmonize all possible authorities, it is suggested that in Bacon's theory, the visual *species* has a role similar to what an agent sense was expected to do according to some early 13th-century Aristotelians. (In this context, the unpublished questions on *De anima* by Adam of Whitby and "magister R.", and the so-called "anonymous of Assisi", are briefly considered.) Extramission might be a mechanism "ennobling" and "elevating" the crude material *species* to be commensurate with the sensory power. Other miscellaneous attestations of Bacon's alignment with the activity of senses are also examined: his extramissionist, Ptolemaic definition of the "object" as something that hinders the flux of the visual *species*, his notion of the visual cone explaining the inhomogeneity of the visual field in terms of visual acuity (i.e. why the peripheries of the visual field seem blurred in contrast to its center), and his explanation of the phenomenon known from the observational astronomy, the scintillation of the stars, by the notions of effort (*conatus*) and exhaustion (*involutio*) of the visual capacity. Finally, Bacon's theory (inspired by Alhacen) of more complex visual judgements and even quasi-reasoning is presented. Although it is the higher sensory capacities (especially the so-called cogitative faculty) that is responsible for these

complex cognitive mechanisms, this cognitive activity also penetrates or permeates the visual experience itself.

In contrast to Bacon, who considers both passive and active aspects of the perceptual process, Peter Olivi stresses only the activity of senses. The cognitive activity thesis is deeply rooted in his thought and he thus justifies sensory activity in anthropological and religious terms. As Olivi is convinced that human freedom is an essential part of the Christian worldview, he ascribes the faculty of free will to human beings and understands this capacity for making decisions as necessarily active and causally efficient regarding its acts. The same, however, should also be valid for all other human capacities, the senses included. Thus, every perceptual act presupposes a primary focusing of our attention (*aspectus*) upon an object. In fact, the soul's capability of actively paying attention to something is rudimentary and much more critical for perception than the causal influence the external object might have on us. (Olivi justifies this belief through the thought experiment of "man before creation".) Once the attention is focused and fixed upon an external object, the sensory power elicits the perceptual act. In Olivi's view, it is the soul's power itself, and not the external object, that plays the role of the efficient cause in bringing about the perceptual act. The object is only an end-point (*terminus*) of cognitive activity; in Olivi's words, it is the "terminative cause" of the perceptual act, rather than the traditional, ontologically-committing efficient cause. In comparison with other contemporary interpretations of Olivi's theory (e.g. J. Toivanen), more emphasis is placed on Olivi's inspiration by the Platonic version of extramission. Olivi, having criticized both intromissionist and extramissionist positions in optics, elaborated his own optical project based on the postulation of specific "rays" of attention. These "virtual rays" are versions of the traditional "visual ray" of the extramissionists, albeit dematerialized.

Finally, Auriol's version of the active theory of perception is investigated, in which the notion of appearance plays the seminal role. For example, Auriol models the distinction between the cognitive modalities (perception, imagination, understanding) not metaphysically but phenomenologically. What is crucial is not the difference between kinds of objects of the respective cognitive powers (as was common among Aristotelians) but the different *modes of appearance* of the same object. According to Auriol, sensory powers are active, since they not only receive information from our environment but also actively process it and produce perceptual content. In his words, the senses put the external objects into apparent, objective, or intentional being (*esse apparens, obiectivum, or intentionale*). In normal circumstances, the perceptual content is "indistinguishably joined" to the object seen, but when the veridicality of our perception is distorted, we can discern that the thing appears to be different than it actually is. We are, therefore, able to distinguish between the real thing and the way it appears to us, i.e. its apparent being or the content of our perceptual act. The experience of sensory illusions thus has a unique role in the development of Auriol's theory of perception. Auriol's notion of *esse apparens*, based on the distinction between the subjective and objective modes of being derived from Scotus's works, and also endorsed

by many other Late Medieval thinkers, presents a new notion of intentionality. The intentional is that which is grasped by a cognitive act, and which exists only insofar and as long as the cognitive act lasts. Auriol's notion of intentional being, in contrast to the Aristotelian intentional being of the forms, is thus more similar to the present-day notion of cognitive content, albeit with an important qualification. Auriol states that perceptual content is *both* dependent on our perceptual activity *and* outside our senses. In trying to propose a charitable interpretation of this seeming contradiction, it is argued that Auriol's position becomes clearer if we use the distinction between the first- and third-person perspectives. From the third-person perspective, *esse apparens* is an expression of the relational nature of perception. The same thing can appear to the observer in various ways, depending on which cognitive power grasps it or how different conditions are realized, such as the distance of the object or the state of sensory organs. From the first-person perspective, *esse apparens* enriches the cognitive experience with a phenomenal, conscious ingredient. (Thus, when the *esse apparens* is missing, our acts are not conscious, as Auriol points out referring to selective attention, dispositional knowledge, or generally doing something without paying attention.)

Chapter 5 summarizes all three theories and argues that active accounts of perception are by no means necessarily connected with representationalism, as all three of the thinkers concerned tend to direct realism. A consequence of the active theory, however, is a rethinking of the traditional Aristotelian identity-theory of cognition (to cognize is to be identified with the object cognized through the latter's form received in the cognizer). Bacon's theory (at least as expounded in his mature works) implies that cognition takes place on the level of cognitive "judgements" performed by the cognitive power, as its active response to the reception of *species*, rather than the reception itself. Olivi and Auriol also understand cognition as a kind of *action* performed by living beings. While Olivi stresses the *direction* of this action, Auriol is more interested in its *product*. Olivi models the cognitive action on physical causality: just as a physical agent directs its causal power at the passive recipient of its effect, the attention of the sensory power is aimed at the external object. According to Auriol, cognitive actions have a product, just like building a house or chopping a carrot. However, unlike the latter actions which have real products enduring after the actions have ceased, the product of cognitive actions is an apparent or intentional being of the object cognized that ceases to exist with the end of the cognitive action.