

Lesson Plans: Medieval Psychology.

I. The brain and exterior senses

- a. Medieval thinkers viewed the brain as the center of thought, just as we do today. They imagined sensory stimuli entering the brain from outside, and making a physical impression on the brain (this is why they believed the brain's white color was important to its functioning). They knew what the brain looked like and how it was divided up; this kind of anatomical investigation had been going on since the ancient Greeks, who had developed quite a sophisticated understanding of how the brain worked. Some of this knowledge remained available to medieval writers like Bartholomew, who describes the brain:

"The brain is a white body, and it is without blood, which has much spirit and much marrow. It is divided into three chambers. It is the beginning of all of the nerves of the body. It is secured below two protective layers, named the tender and the hard mother [the *pia mater* and *dura mater*, the names those membranes are known by today]. It is placed in the top of the head, as this is the most distinguished part of the body. Moreover, the brain is naturally white, so that it is a ready place for receiving the likeness of any body. It has much spirit, with the result that there is much motion in it. And it also has much marrow, so that the high heat generated from its motion may be tempered. But it has only a little blood, so that it is not stained by its color, for this would make all apprehensions seem red. Therefore it is also moist without blood, so that it can swiftly be altered in its nature for the purpose of perception. So says Constantinus [Africanus, a medical author Bartholomew often refers to]. There is however a distinction between the three chambers of the brain, because the brain has three cavities, which are called ventricles by scientists. In the front chamber or ventricle the imagination is shaped, in the middle, reason, and in the back, memory and recollection."

Discussion: How does the medieval idea of the brain's structure and function, as exemplified by Bartholomew, compare to the modern view? For modern information on the brain, you can start [here](#). Some aspects you might want to compare are the role of the ventricles of the brain, the different functions of different parts of the brain, and the function of the material the brain is made of.

- b. Medieval thinkers divided the senses into the same five we know today: sight, touch, hearing, taste, and smell. They had none of the theories of electromagnetics, acoustics, and molecular chemistry that we have today to explain what exactly it is that we are sensing, but they had their own theories about why we sense different phenomena differently. In the following text, Bonaventure discusses the kinds of things that are apparent to each sense:

"Let it be noted then that this world, which is called the "macrocosm," enters our souls, which are called the "microcosm," through the doors of the five senses. Therefore, man,

who is called a "microcosm," has five senses like five doors, through which enters into his soul the cognition of all that is in the sensible world. For through sight enter the transparent, luminous, and other colored bodies; through touch the solid and terrestrial bodies; by the three intermediate senses the intermediates, as by taste the aqueous, by hearing the aerial, by odor the vaporuous--all of which have something of a humid nature, something aerial, something fiery or warm, as appears in the smoke which is freed from incense."

- c. The exterior senses were viewed with some suspicion by medieval religious thinkers, since sensual attractions like food and music competed with the otherworldly spiritual goals of the medieval church; in fact, the sacrament of extreme unction, the "last rites," involves anointing a dying person's sense organs, since they might have been a gateway for sins. The senses are more often depicted in secular art than religious art, often connected with animals that were thought to have especially strong powers of the senses (like the lynx for vision, the ape for taste, the boar for hearing, and the vulture for smell, as an old poem tells it). The Fuller Brooch, a silver piece from the ninth century A.D., shows us a personification of the senses:



Sight was considered the most important sense, and its personification is shown in the center, with very wide eyes. Taste has his hand in his mouth, Smell is investigating the two tall plants beside him with his nose (his hands are behind his back), Touch is rubbing his hands together, and Hearing is cupping a hand to his ear. Other representations of

the senses show people [tasting fruit](#) or [listening to music](#). Representations of sensory activity in religious texts often take a critical view of it, as in [this picture](#) of a pilgrim encountering Gluttony.

II. The “interior senses”

- a. In addition to the exterior senses such as we acknowledge today, medieval psychology also called upon interior senses. This idea was related to the medieval philosophical distinction between “universals” and “particulars”, which is basically a distinction between general concepts (like “2+2=4” or “dog”) and objects in the world (like “four apples” or “my neighbor’s dog Biff”). Particulars could be accessed by the senses, but universals needed another kind of knowledge, and this is where the idea of “interior senses” arose. The interior senses are responsible for mental abilities like estimation (being able to extend knowledge you gain from experience to new situations) and memory. These abilities give the brain access to abstract universal concepts.

Beginning with St. Augustine in the fourth century A.D., Christian thinkers proposed that these interior senses, that guide the mind in interpreting the evidence of the exterior senses, are a product of faith and grace. According to this view, faith and the knowledge of God are vital to understanding the world around us: since both the senses and human reason have limitations, the mind requires the guidance of faith, through the interior senses, to understand the world.

- b. Medieval thinkers identified five interior senses: “In the front ventricle of the brain humans have two senses, namely the common sense, which receives all sense impressions, and *phantasia*, which retains them. The third faculty is located in the middle ventricle of the brain and is called the imaginative faculty, though it is also called cogitative when the intellect makes use of it. Its job is to combine the forms or images stored in *phantasia*. The fourth faculty is not in any part of the brain, which is why it is not recognized by the physicians. This is the estimative faculty, a kind of instinctual understanding shared by humans and brute animals. It is with this faculty that, for example, the lamb knows that the wolf is dangerous. The fifth and last faculty is memory, in the back ventricle of the brain.” (Harvey, *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance*, London: The Warburg Institute, 1975; quoted in the [Stanford Encyclopedia of Philosophy](#)).

c.

These ideas about the interior senses were not limited to Christian thinkers. Avicenna, an eleventh-century Persian thinker, said of the interior senses: “Then there is the faculty of estimation, which is the faculty placed in the top of the middle cavity of the brain, which apprehends intentions which are not intelligent and which are about individual sensible things. Just as the faculty which is in a sheep decides that it must flee from this wolf, and that she must show compassion for her lamb, this faculty seems also to impart order and distribution on things which are imagined.

Then there is the faculty of memory and recollection; this is a faculty placed in the far back cavity of the brain, which retains what the faculty of estimation apprehends from non-sensible thoughts of individual sensibles. The relationship, however, of the virtue of memory to the virtue of estimation is like the relationship of the virtue which is called the imagination to the sense, and the relation of this virtue to intentions is like a comparison of that virtue to sensible forms.”

- d. Roger Bacon on estimation: “But it is well known that a dog recognizes a man whom he has seen before when he sees him again. Both apes and many beasts do so, and distinguish among things which they see of which they have a memory, and they come to recognize one universal from another, as a man from a dog or from wood, and they distinguish individuals of a particular species; and so the understanding, which scientists of perceptions call understanding through knowledge, belongs to animals just as it does to people. Therefore it is through the faculty of the sensitive soul. Similarly, whenever an animal, like a dog or a cat or a wolf or anything else holds some animal which it would like to eat, while the prey is inactive, the predator stands immobile; but when the captive animal flees, then the predator pursues it until it overtakes it if it is able. It would not do this unless it understood that the location of the prey changed with regard to itself, and so it understands motion and rest and distance.”

III. Dreams and imagination

- a. Medieval thinkers speculated about the ability of the mind to see things that aren't there, through dreams and imagination. The Bible contains many stories of prophetic dreams that reveal the truth: Joseph impressed Pharaoh with his dream interpretation, and [Jacob dreamed of a ladder](#) going up to heaven with angels climbing on it. The eleventh-century French poem *The Song of Roland* contains the story of [Charlemagne's dream](#) in which the apostle James came to him to ask him to liberate Galicia from the Saracens. Of course, not every dream is prophetic – some are just plain strange. And it appears that some animals dream too, just like people, so medieval thinkers wondered what could be the cause behind these phenomena.
- b. Bartholomew on dreams: “A dream is a certain disposition of sleeping people, in which the forms and imagined likenesses of various things are impressed upon the minds of the sleepers. On account of the linking and union of the soul with the flesh, sometimes dispositions and emotions arising from the body resound in the mind itself, because of this attachment of the flesh to the soul. Brute beasts also dream, as Aristotle says that a dog dreams, which is evident from his barking, and similarly a horse, which is evident from its whinnying.

Such dreams are sometimes caused by too much food, or insufficient activity, and sometimes from a previous strong image or thought. Sometimes they are caused by appetite and attachment, as when a hungry man dreams of food; a drunk or thirsty man of drink or of lack thereof. However as much he dreams of drinking or eating, the more strongly he finds himself hungering or thirsting. Sometimes they are caused by excessive devotion and application of the mind to something, so that a miser always dreams of

gold, and he seems to be counting his money, and it has either increased or decreased. Sometimes they are caused by a disturbance of the brain, as is evident in those who are disposed towards madness and mania, who dream of marvelous, unheard-of things, since because of a vapor which infects and changes the image-producing section of the brain, the dreams themselves are changed. Sometimes they are caused by an infection of the blood, for those who have infected blood dream that they are walking through unclean places which are full of decay and bad odors.”

- c. Discussion: Bartholomew’s explanations for dreams might seem strange to us – but how do we explain why people have particular dreams? What kinds of physiological explanations do we use? What about psychological explanations (you could start [here](#))?

IV. The role of the intellect, and the mind-body problem

- a. Take another look at the description earlier of the five faculties of the mind. As you can see, the intellect is not one of these faculties; instead, it makes use of the other faculties such as imagination to enable us to think about abstract concepts.

Maimonides, a twelfth-century Jewish philosopher, wrote about the role of the intellect in distilling universals from particulars: “I have already let you know that understanding of the imaginative faculty is found in most living or animal things. Yet it does not know through that faculty. Nor is the operation of that faculty like the operation of the intellect, but it occurs in another way, since the intellect is what separates composite things, and knows their parts, and understands them, and detaches them in its own truth and its own causes.”

- b. Medieval theories of psychology, drawing on the work of Aristotle, proposed that there were two kinds of intellect in the human mind. The passive, or potential, intellect acted like a receiver of sensible images – this passive view of the brain’s work is similar to Bartholomew’s idea of the brain that we saw earlier, that it is a passive receiver of sensory impressions. The second type of intellect that Aristotle and the medievals proposed was the active, or agent intellect. The agent intellect is responsible for deriving abstract, universal ideas from the sensory particulars the mind receives. The difference between the potential and agent intellects is therefore related to the difference between the exterior and interior senses, and the difference between particulars and universals.

Medieval thinkers, still drawing on Aristotle, suggested that the difference between the potential and agent intellects is that the potential intellect becomes all things, while the agent intellect makes all things, in the sense that light makes (pre-existing) colors visible. So Richard Rufus says of the intellect, “Again, the soul of man is an individual created and infused before birth. Everything that is something in itself and is conjoined with something, is itself by natural priority before it is conjoined with another thing; but the intellect of man is something in itself and conjoined to another thing; therefore it is something in itself by natural priority before it is conjoined to another thing.

If, therefore, this individual could know its form, it would be as though light, since the natures of all colors are found in light, would completely know all colors in its form. Similarly, the soul in knowing its form would know all things, since vestiges of all forms are in its form, because other than the first cause, the human soul is the final cause exceeding all of nature. But it is only insofar as [the soul] participates in the superior form, that is the first form, that the forms of all things are reflected in the form of the soul itself or even in the form of some intelligence.”

- c. Discussion: As you can see from the readings above, medieval thinkers like Richard Rufus proposed that the intellect is joined to the soul, and makes use of the mental faculties housed in the different parts of the brain to achieve abstract thought. The brain is a physical thing that receives (via the potential intellect) impressions of the physical things it encounters; then the agent intellect works on these impressions to extract abstract concepts from them, and so we get abstract thought about non-perceptible universals. This is a medieval way of bridging the “mind-body gap” to explain how something physical (the brain) is involved with the activities of something non-physical (the soul). This mind-body gap is a difficult problem which we do not fully understand even today, though thinkers from Descartes to artificial-intelligence experts have worked on it. What are some explanations we use today for how the brain produces thought? Some places to start reading are [here](#) and [here](#). Pick three post-medieval theories, and write a paragraph comparing each one to the medieval theory as explained here. Discuss your choices with other people in your class – what are the strengths and problems of the different theories?