

When Thinking Was Done with the Lungs . . .

For the ancients, the voice is generated by the alchemy of internal fluids, it coagulates in the vital organs, in the heart and diaphragm; in the seat of the *thumos*, which is force, energy, ire, and impulsive instinct (its etymology is the same as *fumus*: and in Dante smoke rises from the chest when the passions pulsate).

—Corrado Bologna, *Flatus vocis*

The devocalization of logos inaugurated by Plato, in addition to establishing the ontological primacy of speech over thought, above all tends to liberate speech from the corporeality of breath and the voice. Rooted as it is in the organs of respiration and phonation, speech in fact alludes to the vicissitudes of the body where the humors of the passions boil. As Plato suggests, thought lies instead in the noblest position of the head and, more precisely, in that divine part of the marrow that constitutes the brain. For the philosopher, the centrality of thinking thus ends up reorienting the physiological imaginary concerning speech. When it is forced to take into account the fact that speech is situated in the body, metaphysics tends to locate speech in the mouth, not far from the head, without going into much detail about the workings of respiration. The subordinated role of the voice as the vocalizing of signifiers again takes precedence. Firmly settled in the brain, thought decides the physiology of speech.

Yet it seems that, before the advent of metaphysics, it was more natural to believe that thought was a product of the lungs. In a study that crosses philosophy with anthropology, R. B. Onians argues that this was the opinion shared by the most ancient phase of a number of cultures.

With respect to "a primordial individuation of the importance of speech for thought," he argues, there was an obvious association of words "with the breath with which they are emitted."¹ In the Homeric poems, for example, "thinking" tends to get defined as a "speaking" whose seat is in the corporal organs that extend from the area of the breast to the mouth. The reasoning for this is quite simple: thought is linked to speech, and speech is linked to the voice and to breath. For the most ancient Greeks, this breath has its principal source in the blueish-blackish organs [*phrenes*]²—that is, the lungs—which contain an aeriform substance that Homer calls *thumos*. "Spirit"—as the exhalation of blood that, according to the physiology of the time, is concentrated in the lungs and in the heart—or *thumos* evokes not only the emotions but also the intellectual functions, or thought. As Empedocles says, the heart is "nourished in a sea of churning blood where what men call thought is found—for the blood about the heart is thought for men."² Strange as it may seem, prior to the triumph of metaphysics, the Greeks were thus convinced that thinking was done with the lungs, not the brain. According to Onians, this belief was so spontaneous that it can be found in the archaic phase of other cultures as well. The affinity between thought and speech—or, better, the derivation of the first from the second—situates the mind and the intellectual activities in the respiratory apparatus and in the organs of phonation. It is, so to speak, the *phone* that decides the physiology of thought. By the same token, beating one's breast, the deep chest of breath from which the voice emerges, is "a direct gesture of the conscious 'I.'"³ This is indeed how Odysseus behaves, at the court of the Phaeacians, before speaking and telling his story, almost as if to suggest that, beyond thought, memory resides in the aria of the heartstrings as well.

According to Onians (who, although he may not be the most accredited philologist, is full of brilliant intuitions), archaic cultures are therefore in agreement on the matter of finding consciousness and thought in the natural essence of the breast, in the blood and vapor that it exhales; namely, breath. Thought derives from speech, and speech is found first of all in the organs of phonation—and also, as we will see, in the organs of al-
 imentation—which have their source in the gaseous chemistry of the lungs. These vehicles of sonorous air guarantee communication. Through the voice, breath comes out of the *thumos* of the speaker in the form of discourses that are received by listeners in their own *thumos*, thus enriching their own knowledge. Words "pass from lungs to lungs, from one mind to

another."⁴ To speak and to think consist of a vocalized, aeriform effusion: "the mind, thoughts, and consciousness are breath that can be exhaled."⁵ For the physiology of the ancients, the ears are in fact furnished with conduits that link them to the mouth and thus to the lungs. As the proverb goes, sometimes we drink the words of others.

The Homeric poems tell us that the gods whisper to men and inspire in them not just emotions, but also propositions, intentions, thoughts. The entire gamut of human experience, which refers to the most ancient precursor of the "conscious I"—as Onians calls it—has an aeriform character and is rooted in the lungs. This is true not only for *thumos*, which Plato himself links to the churning spirits of the passions that are situated around the heartstrings, but also for *noos*—a highly decisive term for metaphysics that, according to Plato, denotes a pure intelligence dedicated to the contemplation of the ideas. If one believes Onians, it in fact seems that the term *noos*—in a manner that is in keeping with the pulmonary source of thought—is originally related to a family of words that indicate the nose, *noos*, rather than the faculty of sight.

So we are in the realm of respiratory functions. However, the olfactory power of the nose, and the taste buds of the mouth, transfer the seat of thought into the zone of alimentary functions. Onians—overlooking, in this case, the Homeric language that links knowledge to sight through the verb *idein*—turns his attention to Latin culture in order to point out a curious link between knowledge and tasting [*gustare*]. For speakers of Italian, this link is hardly surprising because the Latin *sapere* is used to designate an operation of the mind, as well as for a pleasing aroma. (As Dante says, in good Florentine, "il pane altrui *sa* di sale.") Obviously, the nose too is evoked here because the verb *sapere* refers "not only to the juices that are absorbed in the act of tasting, but also to its exhalation or breath, and thus to odor, absorbed by the nostrils in the act of breathing."⁶ Breathing and digestion, nose and mouth, are rendered indistinguishable, leading to the spontaneous identification of thinking with speaking.

According to Onians, this archaic imaginary in fact proceeds through a series of associations that, for a premetaphysical mentality, are rather obvious. Thinking recalls speech, and speech recalls the various physiological functions—situated between the mouth, nose, and breast—that regard respiration and alimentation.

Even from a scientific perspective, this state of affairs is not as strange as it may seem. As a respected contemporary ear, nose, and throat special-

ist notes, speaking in fact lacks "an organ physiologically appointed for that effect . . . because we are furnished with a digestive apparatus and a respiratory apparatus; but nothing was given to us that is aimed towards language."⁷ Thus, although man is generally defined as a speaking animal, he must rely on systems made for other vital necessities in order to reach speech. He must, as it were, distort their natural functions. In the process of becoming *homo*, "a first grouping—of digestive apparatuses; namely, lips, mouth, palate, tongue, teeth—and a second grouping—of respiratory apparatuses; namely, larynx, nasal cavities, lungs, diaphragm—come together for acoustic purposes."⁸ Speaking, which is first of all a labor of phonation, is rooted in the labyrinths of the body for modern science as well. In the final analysis, the strangeness of the ancient account depends on a single factor: the links that bind thought to speech and thus anchor it in the breast.

In Plato's view, by contrast, thought lies in the head. At least in this sense, Plato anticipates a scientific framework that is more familiar to us. Obviously, it is indisputable that one thinks with the brain and not with the lungs. From a scientific point of view, Homer and the other representatives of the ancient world are incorrect. From a more general point of view, however, it is interesting to note how this curious adventure of the physiological imaginary narrated by Onians resonates with the advent of metaphysics and the devocalization of the logos. In the scientifically correct move from the lungs to the head, it is not only the seat of thought that is at stake, but also, and above all, the sovereignty of thought with respect to speech. The belief that speaking depends on thinking takes the place of the belief that thinking derives from speech.

This substitution is decisive because, besides configuring itself as a prevalence of the head over the lungs, it moves the measure of the human being from the physicality of the body to the impalpability of the mind. Whereas before, thought was a coproduct of the vital functions of respiration and alimentation, it now comes first and is not produced by the body. As Plato says, thought lies in the brain—in the marrow of the encephalon—but it is not an effect of the brain, because the gray matter is not at all its cause.⁹ Thought, or the activity of the noetic soul (as it moves from the lungs to the head) gains autonomy from every corporeal cause and thus earns its metaphysical status.

In keeping with the liquidation of the *phone*—which gets reduced to an auxiliary role that is basically superfluous or in any case inadequate with

respect to the realm of truth—thought itself is characterized by metaphysics as a mute activity. Isolated from the organs of phonation, the soft material of the brain, where thought makes its home, is in fact mute. For the Greeks, this material is the primary seat of the *psyche*, or the soul. The soul can also have other parts that lie elsewhere in the body, but it is substantially situated in the head as its natural casket. According to Plato, this is a *psyche* with specific intellectual functions and thus, as Onians puts it, belongs to the mind. This identification of the *psyche* with the mind, which passes on with some success into the philosophical tradition, had very few counterparts in the culture previously. In the archaic period, *psyche* denoted a substance with procreative functions totally deprived of intellectual functions. Thought lay in the lungs, not in the head. To think is to speak, and to speak is to breathe. If in the *psyche* there is no breath, then there is also no voice, and thus, there is no thought.

And yet the *psyche*—from the verb *psycho*, “to breathe”—could not but sound to a Greek ear like a phenomenon linked to the emission of air. As already indicated, the same could be said for the Latin term that corresponds to it: *anima*—from the Greek *anemos*, “wind,” “breath.” However, according to Onians, in these cases, “air” is not the air that passes through the lungs in the act of respiration, but rather a breath that comes out of the sexual organs of the man in the act of procreation. As if by a pneumatic mechanism activated by excitation, the seed is blown out of the penis. This seed emerges from the cerebral material that, like sperm, is soft and viscous. Thus, there emerges a natural link to the brain and to the head. For the physiology of ancient Greece, the content of the cranial box is simply procreative sperm that, as it passes through the bony tube of the dorsal spine, reaches the penis and gets blown by it toward the outside. Faithful to its etymology, like the Latin *anima*, the *psyche* thus finds its most obvious meaning. It is precisely a vital spirit that generates by breathing.¹⁰

Plato knows this archaic meaning of the *psyche*, and in the *Timaeus*, he gives it credence—not without a certain bit of fun. He in fact says that the gods, who shaped the human body, made a conduit “in order to receive the marrow [*muelon*] that runs from the head along the dorsal spine, what we have called sperm [*sperma*]; and this marrow, because it is animated [*empsuchos*] and breathing [*anapnoen*], provokes a vital desire for emission in that part where it breathes, and thus provokes the desire for procreation.”¹¹ Also in the *Timaeus*, however, it is said that only that invisible part that is dedicated to intelligence [*nous*] can rigorously be called *psyche*.¹²

This is, of course, the noetic soul that the gods surround with gray matter, but that is not the same thing as the brain and is itself totally immaterial. The soul is eternal, bodiless, and does not breathe. Much closer to a “mind” than a spermatric marrow, it is this soul that is identified with the work of thought.

Plato is therefore perfectly in line with the belief of the time when he sustains that the *psyche* has its seat in the head. As he no doubt knows, according to this belief, the *psyche* does not think but rather inseminates, procreates. And, still in keeping with this belief, “the soul reveals itself to be the part of man destined to survive death.”¹³ As the seat of life rather than the seat of consciousness or thought, the preplatonian *psyche* is a vital *breath* that is capable of generating new lives and of surviving the death of the body. In the last analysis, the turnabout that Plato performs does not consist in locating the *psyche* in the head, but rather in changing its function—namely, in identifying with the mind that which had been identified with the lungs. The result is a conception that appears much more familiar to us.

From a philosophical point of view, although this move obviously places Plato much closer to the modern scientific framework, it ends up being interesting precisely for the archaic implications that it still conserves. In addition to lending credence to the old doctrine of “breath” as it relates to the mechanism of procreation, the philosopher in fact recuperates a spermatric function for the new model of the *psyche* as well, which he has come to identify with the mind. This happens above all in the well-known platonian scenario that presents Socrates as midwife. Aided by the maieutic arts of the teacher, we read in the *Symposium*, the young are able to “deliver” the true logoi with which their souls are pregnant.¹⁴ Likewise, in the *Phaedrus*, Plato affirms that logos passes from one soul to another, generating a series of descendants and brothers that are all legitimate children.¹⁵

And it is useful to remember that, behind the platonian Socrates, there is the figure of the historical Socrates who intends philosophizing as speaking, rather than as thinking or contemplating.