The evergreen story of Psammetichus# inquiry into the origin of language

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THE EVERGREEN STORY OF PSAMMETICHUS' INQUIRY*

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1.   ***Introduction***

In the *Histories* (2, 2), Herodotus launched his 5th-century BC description of the land and people of Egypt by telling a story so striking that it has been inscribed in western reflection on language ever since.   The protagonist in the story is the Egyptian pharaoh Psammetichus I (664–610 BC), who wanted to determine which among the peoples of the earth was the oldest. He placed two newborn infants in the sole care of a goatherd who was instructed never to speak to them. After two years, the goatherd reported back to Psammetichus that the children repeatedly approached him with outstretched hands, crying the word '*bekos*'. When the pharaoh determined that *bekos* was the Phrygian word for 'bread', he conceded that Phrygians, not Egyptians, were the oldest people.

In the translation by David Grene:

The Egyptians, before Psammetichus became their king, thought that they were

the oldest of mankind. But Psammetichus, when he became king, wanted to know

truly which were the oldest, and from that time the Egyptians consider that the

Phrygians are older than themselves but that they, the Egyptians, are older than

anyone else. For Psammetichus, when he could not in any way discover by inquiry which were the first people, devised the following plan. He took two newborn children of just ordinary people and gave them to a shepherd to bring up among his flocks. The manner of their upbringing was to be this: the king charged that no one of those who came face to face with the children should utter a word and that the children should be kept in a lonely dwelling by themselves. At a suitable time the shepherd was to bring the goats to them, give them their fill of milk, and do all the necessary things. Psammetichus did this and gave these orders because he wished to hear from those children, as soon as they were done with meaningless noises, which language they would speak first. This, indeed, was what happened. For when two years had gone by, as the shepherd was performing his tasks, he opened the door and went in, and the children clasped his knees and reached out their hands, calling out '*bekos.*' At first, when the shepherd heard this, he remained silent about it. But as he came constantly and gave careful heed to the matter, this word was constantly with them. So he signified this to his master and at his command brought the children to his presence. When Psammetichus himself had heard, he inquired which of mankind called something '*bekos.*' On inquiry he found that the Phrygians called bread '*bekos.*' So the Egyptians conceded and, making this their measure, judged that the Phrygians were older than themselves. I heard this story from the priests of Hephaestus in Memphis. The Greeks tell, among many other foolish stories, one to the effect that Psammetichus had the tongues of certain women cut out and made the children live with these women. (Herodotus, trans. Grene 1987:131–2)

Like the Biblical story of the Tower of Babel, the story of Psammetichus' inquiry

has been told and re-told in many contexts and guises, serving many purposes. It has

several times survived the abandonment of a topic to which readers in one century found

it relevant, only to be later re-invested with new relevance to another topic. Thus writers

of different eras and orientations have read the story differently, and passed it along to

their readers for different reasons. My goal in this article is, first, to summarize some of

the roles that this story has played over the years: roles that are ethnographical, historical,

epigenetic, glottogenetic, and epistemological. Second, I will analyze examples of its use

in present-day writing on language and linguistics, and speculate about what its continued

presence means with respect to the historical postures that modern language scholars

implicitly adopt.

To understand how this story has been employed, it would be ideal, of course, to have

access to *every* instance where Psammetichus' inquiry has ever been alluded to, cited, retold, or

incorporated into a text. But since only pharaohs face no restrictions in carrying out their

research, I offer instead a taxonomy of what seem to be the major readings of the story,

illustrated with examples of how certain scholars have relied on it to support, embellish, or

contextualize a particular claim.[i] This taxonomy is by no means comprehensive, since there are

likely to have been additional roles that Psammetichus' inquiry has played in the centuries since

it took place—if it did take place—and there are certain to be many citations of the story that I

have not collected. Moreover, my assignment of texts to categories in the taxonomy is

provisional, since a single narration of, or allusion to, Psammetichus' inquiry can carry out more

than one piece of rhetorical business. Nevertheless, I believe this classificatory exercise is a useful starting point for study of the meanings that have been attributed to the story.

2. *Ethnographical role of the story*

The most obvious, face value, role of the story seems to have been attested as recently as the twelfth century, but has not been a major factor in its transmission. Psammetichus' explicit purpose—that is, the role that he designed the inquiry to play—was ethnographic, rather than linguistic, in the sense that he wanted to determine which was the oldest human group. Language only entered into his plan through his assumption that he could identify the oldest people on the basis of linguistic evidence. Most discussion of Psammetichus' inquiry has re-interpreted it as addressing language issues, not ethnography, but recognition of its original motivation is not wholly absent. For example, Herodotus' near-contemporary Aristophanes, writing in *The Clouds*, put into Socrates' mouth the neologism 'βεκκεσεληνε', which Gera (2003:107) translated as 'babbling prelunar idiot'. In commentaries on *The Clouds,* 10th- and 12th-century scholiasts identified the word as an allusion to *bekos*, then proceeded to narrate Herodotus' story with various degrees of accuracy (Gera 2000:27; see also Golden 1995:12). What is of interest here is that the scholiasts adopted Psammetichus' perspective on the purpose of the inquiry, because to them "the chief problem to be resolved in all these variant versions [of the story] is the identity of the world's first people" (Gera 2003:108). That is to say, for these readers the story was an ethnographic, not a linguistic, inquiry.

However, the contributions of the story to ethnography have since come to be dwarfed by its contributions to discussion of language. There are a number of reasons why the ethnographic reading of the story might not have thrived. In the modern world, of course, there is little reason

to believe that Psammetichus was right that Phrygians were the world's first people, and less

reason to trust his means of arriving at that conclusion. Even in Psammetichus' own milieu it is

not clear how much weight his conclusions carried. Lloyd (1976:9–11), among others, remarked

that the story contains elements that suggest a Greek, specifically an Ionian, origin and that it

therefore may not have faithfully represented Egyptians' own notions of the identity of the first

people.[ii] It is probably significant that the *Histories* soon lapses into asserting the historical

priority of the Egyptians, for example in a passage in (2, 15). Then later, in (7, 73), Herodotus

goes on to depict Phrygians as newcomers to the Mediterranean, and not an especially

distinguished group. Therefore they seem unlikely candidates for the role of first people.

Undermining the conclusion of the story from a different direction, Salmon (1956; see also

Armayor 1987:13–14) argued that Herodotus failed to grasp the political context that led his

sources ("the priests of Hephaestus in Memphis", lines 22–23) to pass off to him a story they

considered transparently ridiculous.

Any of these facts might detract from the authority of the story as an investigation into

the identity of the first people. In fact, the original ethnographic motivation for the inquiry has

now passed so far from view that it is rarely acknowledged. Instead, the story is virtually always

represented as an attempt to understand linguistic matters, confidently introduced in modern

literature as "an experiment in order to find out which human language was the first" (Berko

Gleason & Ratner 1998:377) or an attempt "to determine the children's 'natural' language"

(Bleile 2004:17). This constitutes a first, seminal, instance in which the story of Psammetichus'

inquiry has outlived one role, only to assume other roles.

3.   ***Historical role of the story***

Although Psammetichus' inquiry has made little contribution to ethnography, it has been highly valued as a piece of historical evidence, which, in Campbell and Grieve's (1982:46) felicitous depiction "bristles with impressive detail". Many scholars have mined the story as a source of information about language attitudes and experiences, and about diverse social and cultural issues as well. This kind of exegesis has most commonly been carried out with reference to Greece.[iii] That is to say, the story of Psammetichus' inquiry most frequently surfaces in discussion of the world of the narrator, rather than the world of the narrative itself. In fact, as Salmon (1956:321) pointed out, the passage so stands out that it is rare for commentary on Herodotus' writings to exclude reference to it. However, there are also scholars like Lutz (1936:4–5), Staal (1979:6), and Thompson (1996:45–51) who have analyzed the story for what it reveals about ancient Egypt, or Vannicelli (1997) and Dillery (1999:270), who have probed its relevance to Phrygia, or to Egyptian / Phrygian relations.

What all these texts have in common is that they extract from the story specific information that contributes to historical understanding. In addition, Psammetichus' inquiry has also served a broader historical purpose, namely, as evidence for earlier cultures' general curiosity about language. This is a common motivation for referring in passing to the story, especially in works that survey linguistics for novice students. Thus the very different introductory textbooks on linguistics written by Bloomfield (1933:4–5) and by Hudson (2000:490–491) both recount the story to illustrate that people in the ancient world reflected on language. Both writers advert to Herodotus' story as representing the linguistic preoccupations of the Greeks, then move directly to Plato, and quickly on to Thrax—making it clear that the goal is to give a reader glimpses from a panorama of ancient writings on language, minimally interpreted. That is to say, while Gera or Thompson analyze Psammetichus' inquiry in depth,

Bloomfield and Hudson simply report it (as do Hughes 1962:36–37, Waterman 1963:2, and

Salus 1969:1–2). However, all of these scholars share the same overarching purpose in retelling

the story, in that they treat it as an instrument for understanding the ancient world: its value lies

in what it reveals about the people who carried out the inquiry, or (more commonly) the people

who recorded it.

4.   ***Epigenetic role of the story***

In addition to its historical value, Psammetichus' inquiry has also played a prominent role

in controversy about the identity of an original, 'natural', human language. That could be called

its epigenetic role, borrowing a term from biology that labels the property of a single, germinal

cell, which by dividing and differentiating gives rise to multiple independent organisms.[iv]

Linguistic epigenesis was an especially prominent topic in 16th-century Europe, when the long-

standing western belief that Hebrew was the original language of humankind became an object

of debate (Katz 1981:132). In her study of language scholarship in the 1500s, Launay

(1980:406) located what she called four major "means of access" into Psammetichus' inquiry.

Her thesis is that many 16th-century writers told idiosyncratic versions of the story, shaped to fit

their own perspectives on the identity of the original human language. A first such means of

access was to juxtapose Herodotus' story to the Genesis passage about the Tower of Babel, or to

elaborate on parallels between Psammetichus and God the creator, or between the two Egyptian

infants and Adam and Eve. According to Launay, scholars who read the story in this context

include French polyglot and diplomat Guillaume Postel (1510–1581), Pierre Messie (Pero

Mexía, Spanish 'Golden Age' historian [1497–1551]), and Huguenot poet Guillaume de Salluste

du Bartas (1544–1590). They discredited it as a myth, emphasizing its various implausibilities by light of the confusion of tongues at Babel.

Second, the word *bekos* itself served as a means of access into a different epigenetic reading of the story. Launay cites Johannes Goropius Becanus (1519–1572) as telling the story backward, beginning with the children's first word. For Goropius, *bekos* both inspired his own adopted Latinized surname, and provided him with material for his adventurous etymological claims: because *bekos* resembles the Flemish word *becker*, which means 'baker', he incorporated Psammetichus' inquiry into his argument that Flemish is the original human language (Olender 1994:14).[v]

A third means of access into the story Launay labeled as its use as a "historical example" (p. 410)—or one might add, counter-example. The French royal physician and medical humanist Laurent Joubert (1529–1582), for instance, retold Psammetichus' inquiry as epitomizing an assumption he rejected, namely, that untutored children would spontaneously come forth with *some* extant language, be it Phrygian, Egyptian, or Hebrew. To Joubert, what was 'natural' to humans was not any specific language, but a linguistic aptitude that they employed in imitating speech in their environment (1995[1579]:231–246).

Finally, Launay reported that some 16th-century scholars who repudiated the epigenetic project nevertheless used the familiar story to frame historical questions. For example, instead of attempting to identify a first language, historian Claude Fauchet (1530–1601) inquired into what Psammetichus' two children may actually have experienced, comparing Herodotus' report to attested facts about the language of young deaf-mutes (1938[1581]:25–32).

5.   *Glottogenetic role of the story*

Launay's essay illustrates the vitality of the story of Psammetichus' inquiry in the 1500s, and its capacity to provide a backdrop, sometimes a counterpoint, to diverse positions in the debate about the first language of humankind. But the life of the story was not tied to that particular controversy. Even as questions about linguistic epigenesis fell out of vogue, Psammetichus' inquiry retained its hold on scholars' imaginations. In fact, the story has probably most commonly been cited in the context of a different famous question, that of glottogenesis, or the origin of language.[vi] A typical move is to recite the story to substantiate a claim that the origin of language is "a puzzle that has always stirred men's imaginations" (Leroy 1967:24). Thus scholars have frequently exploited Psammetichus' inquiry as a warrant for the historical continuity of discussion about the origin of language. This convention is signaled by the fact that it is often cited early within the pages of the superordinate text, as a point of departure.

However, to initiate exegesis of the debate about the origin of language with reference to the passage from Herodotus makes more than simple chronological sense. That the story is retold, early and often, signals that it has infused discussion about the origin of language. An article by Trabant (1996) is telling. Trabant analyzed writing on the origin of language from the mid 1700s, starting out by presenting what he calls "the four most important glottogenetic stories of the eighteenth century" (p. 44), taken from writings by Giambattista Vico (1668–1744), Étienne Bonnot de Condillac (1715–1780), Jean-Jacques Rousseau (1712–1778), and Johann Gottfried von Herder (1744–1803). Each of these scholars narrates a thought experiment in which imaginary first speakers develop language. Rousseau (1969[1781]:516–527) created an elaborate pastoral tableau of two young pairs of first speakers, in the southern versus northern climates, each of whom invents language. For Condillac (2002[1746]:99–102), the first speakers

were also a pair, children living isolated from society. Vico (1968[1744]:148–153) and Herder
(2002[1772]:88–89) both placed their inventors of speech in wild, natural settings populated by
animals, and both proposed that the first word was derived by imitation from the environment.
For Herder, the first speaker's initial word was motivated by a sheep's bleating, and the word
itself meant 'sheep'. This detail is significant, because Psammetichus' identification of *bekos*
with Phrygian 'bread' had been criticized for many years on the grounds that a more perspicuous
interpretation of the famous children's famous first word was that it mimicked the goats'
bleating.[vii]

Trabant does not point out references to Psammetichus' inquiry in any of the four
glottogenetic stories.[viii] But Herodotus' text seems present right beneath the surface in each case,
in the details of all four narratives and in their *dramatis personae*. It also seems present in the
fact that Vico, Condillac, Rousseau, and Herder speculated about the origin of language through
engaging stories of high human interest, which all exhibit something of what Farrar (1865:14)
called the "delicious *naïveté*" of Herodotus' version. Perhaps by the 18th century
Psammetichus' inquiry had become so integrated into discourse about language that no specific
invocation of it was needed for readers to hold it in mind.[ix]

6.   ***Epistemological role of the story***

Glottogenesis is an issue whose day has come and gone several times in western language
science.[x] The passage from Herodotus (2, 2) still appears in modern discussion of the origin of
language, if only to embellish presentation of a topic no longer defined in 18th-century terms,
much less in the terms of ancient Egypt. Since the 1960s, preoccupations born of the advent of
generative grammar have brought forward a different reading of the story, breathing new

relevance into it. That reading is epistemological in the sense that it interprets Psammetichus to have investigated the sources of linguistic knowledge, in particular, the relative contributions of what is inborn versus what is acquired from the environment. Study of language acquisition in these terms raises some of the same questions that were raised in 18th-century debate about the origin of language; in fact, many scholars have adverted to language acquisition in writing about glottogenesis (and occasionally vice versa). Therefore it may not be surprising that, in discussion of what children are born knowing about language versus what they learn from their surroundings, contemporary linguistic literature routinely recycles the story of Psammetichus' inquiry past a new generation of readers.

The nature-versus-nurture theme now attributed to the passage from Herodotus is currently very popular in research on language learning. Hoff (2001:8) introduces the story as "asking about the language [that] the brain creates when it is not given an existing language to learn". Ferguson and Slobin (1973:vii) depict it as Psammetichus' attempt "to solve the problem of the innate factors in language acquisition".[xi] One could augment the many such citations of the story in print with almost as many posted on the Internet. A search of the World Wide Web turns up numerous recent references to the passage embedded in lecture notes, unpublished scholarly papers, student assignments, course handouts, textbook chapter summaries, online discussions, and even advice about language acquisition presented to the parents of young children. Ephemeral texts of these sorts appear and disappear on the Web, sometimes in the absence of identification of their authorship, both with and without attribution of the story to a specific source.

Thus modern reflection on language acquisition carries forward the story of Psammetichus' inquiry via both traditional and new media. Often, references to it are followed

by mention of other attempts to isolate children linguistically, attempts attributed to Frederick II

of Sicily (1194–1250), James IV of Scotland (1473–1513), and Akbar the Great (Mogul India,

1542–1605).[xii] Writers also commonly link the passage from Herodotus to literature about

children who experience linguistic isolation either for unknown reasons (as in the case of the

19th-century feral child 'Victor': Itard 1894 / 1962, Lane 1976), or due to parental abuse

('Genie': Curtiss 1977, Rymer 1993), or through the mishap of being born deaf into a hearing

family that failed to accommodate the child's communicative needs (Feldman et al. 1978). For

each of the latter three instances, actual data exists about the linguistic profiles of children whose

fates it was to grow up under these extraordinary circumstances. The language capacities (and

limits) of deaf children with hearing parents, of Genie, and even sometimes of Victor are cited in

debate about innate versus environmental factors in language learning. In contrast, the reported

outcome of the linguistic isolation imposed by Psammetichus (and by Frederick II, James IV,

and Akbar the Great) is far too sketchy and dubious to carry weight in present-day scientific

inquiry. Nevertheless, references to Psammetichus' inquiry remain ubiquitous, especially in

literature addressed to students in their first exposure to the study of language. After 2700 years,

the story has still not worn out its welcome in discussion of matters linguistic.

7.   *On the persistence of the story in modern linguistics*

The evergreen character of Psammetichus' inquiry is worth dwelling on. We have seen

that scholars in earlier centuries have found it compelling, for a range of reasons. In the study of

language since the 1960s, its chief role has been to attest to the existence of pre-modern

linguistic-epistemological inquiry. But it also seems to serve another, implicit, purpose: in

adverting to Psammetichus' inquiry, modern scholars communicate a position they assume vis-à-

vis the history of linguistics. In this section I first analyze some salient features of how contemporary scholars incorporate the passage into their writing. I then give two examples of how the story was told in similar contexts in the late 19th century, to bring into relief the distinctive characteristics of modern linguists' citation of the passage from Herodotus.

A typical late 20th-century narration of the story appears in the second edition of O'Grady et al.'s popular textbook, *Contemporary Linguistics*.

One of the most intriguing phenomena studied by linguists is children's acquisition of language. Fascination with this issue dates back to at least the seventh century B.C., when the Egyptian Pharaoh Psammetichus had two infants brought up in complete isolation in an attempt to determine the type of language they would learn on their own. The Pharaoh had hoped that the children's utterances would provide some clues about the origin of language. The story is that the children were brought up by an old shepherd couple, who were instructed not to speak to them (or, who were mute, depending on which version you hear). After some years, the children were heard to utter *bekos*, and the Pharaoh concluded that the original language of humankind was Phrygian, since the Phrygian word for bread is *bekos*. It has been pointed out that it is not surprising that children raised in an environment of sheep cries would produce the syllable *be*.

Fortunately for all concerned, the study of language acquisition has advanced considerably since the Pharaoh's time, and linguists have been able to develop a variety of research strategies that allow linguistic development to be investigated in a more acceptable and fruitful way. (O'Grady, Dobrovolsky & Aronoff 1993:361)

In several ways, this passage typifies modern recitations of Psammetichus' inquiry. It appears in a textbook, a predictable environment for the story. Moreover, O'Grady et al. narrate it at the outset of a text (here, a chapter on language acquisition; often, at or near the beginning of a book or article). The explicit reason for telling the story is, as usual, to demonstrate the longevity of human curiosity about how children learn language, presumably so as to heighten readers' investment in the topic. But in this case, as in many other modern citations of Herodotus' story—both in its epistemological role and in contemporary discussion of glottogenesis—it seems to carry another burden as well, namely, it signals how the modern discipline orients itself toward earlier inquiry into language. That is to say, my sense is that the story serves as a tool in readers' intellectual socialization, modeling for them a particular stance with respect to how people in other centuries approached linguistic questions. That sense derives from three observations about how present-day writers present the story.

7.1   *Dramatization of the story*

First, O'Grady et al. take certain liberties with the details of the story, for example by replacing Herodotus' goats with sheep, and replacing the goatherd (of unspecified age) with an 'old shepherd couple'. Although such modifications don't necessarily deform the story, they often reveal writers' underlying assumptions. The role of the goatherd is sometimes taken over by a "servant" (Fromkin & Rodman 1978:20; a "mute servant" in the 6th ed., 1998:54 [see also Yule 1985:2]), or plural "herdsmen" (Gleitman & Newport 1995:5; "shepherds" in Hoff 2001:8). Caspari (1968:51) dispenses with the goatherd, reporting that the children were "brought up by goats". Conversely, Berreby (1992:46) dispenses with the goats, as in his version of the story the

children lived "in total silence". The locale of the story varies as well. The children are represented as having been raised in "a mountain hut" (Shattuck 1980:44; "an isolated mountain hut" in Fromkin & Rodman 1978:20), a "secluded compound" (Osborne 1999:84), or under conditions depicted more vaguely but apparently more social-scientifically as "severe cultural and linguistic isolation" (Galantucci 2005:761). *Bekos* is sometimes misidentified as a Phoenician word (Atkinson et al. 1988:3) or, bizarrely, as Egyptian (Ellis 1999:3). Psammetichus may be demoted to a "prince" (Atkinson et al. 1988:3), or granted the obscure appositive "king of Pittus" (Fano 1992:48). Alternately, Psammetichus' place in the story may be substituted by a pair of monarchs, one Egyptian and one Phrygian (Feldman et al. 1978:354). With respect to the two infants, many modern recitations characterize them as "baby boys" (Osborne 1999:84; Hughes 1962:36) whereas Herodotus used no gender markers.

Sometimes quite large gaps open up between Herodotus' text and its modern descendents. Boysson-Bardies (1999:92) introduces a novel twist by asserting that the "shepherd . . . [was] said to have been Phrygian" and that "taking pity on the infants, he disobeyed the pharaoh's orders". In some versions, Psammetichus is reported to have ordered the goatherd to "treat [the infants] well" (Berko Gleason & Ratner 1998:377) but not to speak to them "on pain of death" (Feldman et al. 1978:354; Fromkin & Rodman 1978:20; Shattuck 1980:44; Gleitman & Newport 1995:5)—although Herodotus' pharaoh neither thus instructed the goatherd, nor thus threatened him.

Many of these novelties likely derive from the fact that few modern writers who re-tell the story have encountered it directly in the *Histories*, either in translation or in Greek. Instead, they are probably recounting it from memory, second- or third-hand, or many times removed from Herodotus' text, much less from Herodotus' own source. This is not unique to modern

writers, of course: Taylor (1984:501) speculated that Quintilian's version in *De Institutio Oratoria* (1st century AD) already constituted a "slightly garbled synopsis" which mixed up the conventional story with the intriguing counter-story appearing in the final lines of the passage. In the many years since this story was first written down it has achieved the status of folklore, advancing so far out into the public domain that it has become quite attenuated from the details as Herodotus reported them. This renders even small divergences from Herodotus' version revealing because, as the story evolves away from its source, the new content it assumes communicates something about how those who retell the story construe it, and about their motives.

What is common to many modern versions of the story is that rather than simply misreporting its details out of ignorance or inattention, modern authors often embroider or theatricalize it, heightening its drama and adding spurious color and personality where the original version seems impersonal, even austere. Coming as it does out of a social and intellectual culture vastly different from that of modern Euro-American linguistic scholarship, the narrative likely strikes readers as alien. It is not surprising, then, that writers add particulars or even substantive novelty to make it more vivid or engaging to the modern imagination. For example, the two infants involved must each have belonged to one or the other sex. Therefore, to narrate the story as involving two 'baby boys' may appear to be a modest extrapolation to accommodate readers' curiosity. Likewise, to represent Psammetichus as enjoining the goatherd's silence 'on pain of death' may seem only to spell out what Psammetichus could have said, or Herodotus could have written, but didn't. Other writers go further. Rymer (1993:3–4), for instance, presupposes access to Psammetichus' subjective experiences in commenting approvingly that the pharaoh accepted a result contrary to his expectations. Rymer also

interpolates Psammetichus' states of mind ("it occurred to [Psammetichus] to wonder…") and his motivation ("his interest in the language question had territorial overtones").

In these ways the story of Psammatichus' inquiry is remodeled, if sometimes only subtly, to meet the anticipated needs of contemporary readers. However, by touching up the narrative in an effort to heighten its appeal, modern writers end up normalizing, or universalizing, their readers' own tastes and expectations. The problem is that to domesticate the past on the model of the present deceives readers into assuming more continuity than may actually exist, leaving them under-prepared to appreciate whatever differences of attitude and experience separate the intellectual world of Herodotus, or of ancient Egypt, from that of the 21st century.

7.2   *Conceptualization of the story as scientific research*

A second feature of modern versions of the story may serve a similar end. O'Grady et al. present Psammetichus as an experimental psycholinguist *avant la lettre*, and in this way create common ground between his interests and perspective and those of their readers. Going back at least as far as the 17th century, many writers have depicted Psammetichus' inquiry as an 'experiment' (e.g., Hakewill 1635:Ch. 1, Sec. 2; Edwards 1693:Ch. 2). But contemporary scholars do more than apply this historically loaded term to the passage. They conspicuously attribute a precocious empirical spirit to Psammetichus, implying that he initiated scientific study of language. The passage is typically labeled as "the first recorded language acquisition experiment" (Hoff 2001:8), "the first recorded scientific study of language origins" (Bleile 2004:17), "the first recorded psycholinguistic experiment" (Ferguson & Slobin 1973:vii), or even the "ultimate language-learning experiment" (Gleitman 1993:s17). Hughes (1962:37) wrote that the "king is to be praised for his spirit of experimentation and . . . willingness to abide by the

result [of his test]". Sulek (1989:651) went even further, remarking that "The intellectual honesty of Psammetichus is astonishing. He could become the patron of present-day experimenters". Rymer (1993:5) seemed to presuppose a convergence between ancient Egyptians and modern linguists in writing that, "While [Psammetichus'] experiment is flawed . . . it is in other ways brilliant—an incisive bit of scientific prescience". In a coda to the narrative, Rymer raised the pharaoh's historical status beyond that of the first *psycho*linguist, identifying him as "the protolinguist, the earliest practitioner of an enduring scientific pursuit".

Assessment of these claims is muddied somewhat by the fact that the story is attributed sometimes to Egyptian, and sometimes to Greek, reflection on language. O'Grady et al. frame it as showing that "[f]ascination with [language acquisition] dates back to at least the seventh century B.C." in Egypt, whereas Aronoff et al. (2005:19) remark that "Most linguists would agree with Herodotus that languages can arise de novo", as if the Greek historian himself were responsible for the 'experiment'. However, both those who read the story as about Greeks, equally as those who read it as about Egyptians, now commonly assign to it a kind of cameo role in the early history of language science.

Herodotus lived at a time when the Greeks were making crucial contributions to the development of what is now called 'science'. As a historian, he is usually characterized as an inquisitive, intellectually gifted, story-teller, rather than as a natural philosopher. Nevertheless, in the *Histories* Herodotus built arguments and made claims that employ what Thomas (2000:168–212) called "the language of proof" (see also Lloyd 1975:141–170). Thomas does not advert to the passage in (2, 2). But in what may be an example of the language of proof, Herodotus has the pharaoh concede the priority of Phrygian on the basis of a chain of inferences following from observation of a deliberately contrived event. Does this legitimate the

anachronistic identification of the story as 'the first recorded psycholinguistic experiment'? In

the third sentence of that passage, Herodotus refers to it as a πορον, a 'method of discovery' (or

in Grene's translation cited above, a 'plan'). In (2, 2) he does not label Psammetichus' inquiry as

a διαπειρα, 'test' (sometimes translated as 'experiment'). But in (2, 15) Herodotus casually

refers back to the story using that term.[xiii]

Whether the passage in question can legitimately be depicted as a διαπειρα, and more

importantly whether the terms 'διαπειρα' or 'πορον' necessarily presuppose a Greek (or

Egyptian?) science of language, are matters worth pursuing. Nevertheless, the modern notion of

an empirical experiment entails a complex of assumptions and traditions for which neither 7th-

century BC Egypt nor 5th-century BC Greece should unquestioningly be made responsible. To

label Psammetichus' inquiry as an 'experiment' and to identify the pharaoh as a precursor to

21st-century language science, is to assimilate him into our world and downplay the distance

between him and us. To do so makes the past safer and less threatening, but only at the cost of

making it less interesting and less worthy of meticulous and disciplined study. Perhaps one of

the reasons why Psammetichus' inquiry is still retold in modern linguistics is that it can be

narrated in such as way as to make the past seem tractable, both by elaborating on the story so as

to increase its appeal to modern readers, and by attributing to it our own habits of scientific

reasoning and data-gathering.

7.3   *Critique of the story on ethical grounds*

A third feature present in many iterations of the story from the 1970s seems at first to

work in the opposite direction, in that it calls attention to *dis*continuity between Psammetichus'

world and that of his modern readership. That feature shows up as criticism of the inquiry on

ethical grounds. It is almost compulsory for writers who admiringly present 'the first recorded psycholinguistic experiment' to (in the same breath) repudiate its morality, sometimes by styling it "the forbidden experiment", an expression popularized by Shattuck (1980:41ff). O'Grady et al. offer only an oblique version of this critique in remarking that in contrast to Psammetichus' methods, "[present-day] research strategies allow linguistic development to be investigated in a more acceptable and fruitful way" (1993:361). Gleitman & Newport (1995:6) are more direct, vowing that "we would no longer conduct this experiment on purpose"; to Hoff (2001:8) "the method of the experiment is certainly unethical"; Boysson-Bardies (1999:92) comments that "No one today is prepared to revive the attempts attributed to the pharaoh". Rymer (1993:3) tempers his praise for Psammetichus' empiricism by declaring that the pharaoh "pursued his question with an unbiased rigor and a devotion to the scientific method which could be seen as admirably unsentimental, if not downright brutal". Some writers go even further to distance themselves. Berko Gleason and Ratner (1998:377) exclaim "This is an unethical experiment! The ancient Egyptians did many things that the National Institutes of Health would never allow", and Osborne (1999:84) declares that "only someone with the conscience of a Joseph Mengele would carry out such an experiment".

Thus Psammetichus is now conventionally represented as a psycholinguist (or even 'protolinguist') whose methods are not 'acceptable' or 'fruitful', according to criteria that one might imagine being imposed upon him by the National Institutes of Health. At face value, this third feature of how contemporary scholars characteristically present the story seems to challenge the assimilation of ancient-world linguistic interests into those of the modern world. However, I believe that the critique of Psammetichus' inquiry on ethical grounds actually serves the same end as his incorporation into modern language science. That is, by labeling the story as

a precocious experiment about language acquisition that is nonetheless fatally flawed by contemporary standards, one evades the challenge of trying to understand how radically different the past is from the present. To attribute, even playfully, to an Egyptian pharaoh an imperfect grasp of the local, culture-bound, ideals we 21st-century language scientists hold ourselves to is a potentially risky act of historical self-centeredness. That act disregards important, revealing, boundaries between cultures and centuries. As a result, the typical contemporary context for re-telling this very old story actually serves to insulate students of linguistics from thinking seriously about what knowledge people in the ancient world had about language, and what questions they raised.

7.4   *19th-century versus modern readings of the story*

        To reiterate, my claim is that contemporary narration of the story in Herodotus (2, 2) often tacitly promotes ahistoricity by depicting Psammetichus' inquiry as a precursor to modern research, discredited by the pharaoh's ethical blindness. That is to say, both the story's value *and* its disreputability are established with reference to present-day language science. Modern scholars do not present the story point-blank as evidence that study of the past can be dispensed with; on the contrary, they often treat it as a kind of historical grace note that enriches their exposition. However, the story is told in such a way as to preempt real inquiry into the world of language and language attitudes that Psammetichus, or Herodotus, lived in. This preempting effect of the story is a product of a constellation of features of how it is now told, no single one of which is alone responsible. That is to say, what distinguishes modern scholars' citation of the story is not its use in addressing language acquisition, nor the distortions of the content of the story as it was recorded by Herodotus, both features which have long been attested. Nor is

recent scholarship alone in depicting the inquiry as an 'experiment' or as ethically flawed.
Earlier scholars, too, raised ethical objections: Gera (2000:28) reported that 12th-century
scholiasts declared the alternative version of the story at the end of (2, 2) to be inhuman; Max
Müller (1823–1900) wrote that replication of Psammetichus' inquiry would be "impossible,
unnatural, and illegal" (1861:333); other scholars have exhibited discomfort with the deliberate
isolation of infants. Nevertheless, recent linguistic literature brings these traits and attitudes
together to cast a uniquely modern light on the story that at once both speciously assimilates it
into contemporary science and speciously discredits it for not meeting modern ethical standards.

It may clarify this issue to examine data bearing on it from a different point in time. The
following two excerpts from 19th-century texts re-tell the story of Psammetichus' inquiry in a
different light. The first appeared in an 1851 lecture by the German philologist and folklorist
Jacob Grimm (1785–1863). The second is from an essay published in 1860 by Cambridge
theologian Frederic William Farrar (1831–1903). Both texts reference language acquisition,
although they are extracted from documents whose main purport is glottogenesis.

Herodotus reports to us that the Egyptian King Psammetichus, in order to probe
which people and which language were first created, had two newborn children
given to a shepherd to rear, with the command not to express a word within their
hearing, and to observe what sound they would first utter. After some time had
passed, when the shepherd approached these children they called out with
outstretched hands βεκος, and then often repeated the same word in the presence
of the king. Upon information given he became aware that the Phrygians named

bread βεκος, and by this he was convinced that the Phrygians were the oldest people on earth.

The whole story sounds highly fantastic. If it were ever possible to set up such an experiment, and to execute it so that newborn children were cruelly placed on a remote island and raised by mute servants, then not a word of the oldest human language would be heard. It could absolutely not be innate in them. However these miserable creatures, snatched away from their human heritage, with their awakening mental powers would have to invent, beginning from the beginning like the first men created, a language for themselves. In the event that their seclusion could continue, they would have to transmit it to their descendents. Only at such an expensive price, for which nevertheless the earth would never last long enough to have it completed, could language research gather immediate confirmation of that which is a conclusion justified on other grounds. (Grimm 1984[1851]:13–14)

The belief that language was innate led to the strange hallucination that if a child were entirely secluded from human contact, he would speak instinctively the primitive language of mankind. According to Herodotus, the experiment was actually made by Psammetichus, King of Egypt, who entrusted two new-born infants to a shepherd, with the injunction to let them suck a goat's milk, and to speak no words in their presence, but to observe what word they would first utter. After two years the shepherd visited them, and they approached him, stretching

out their hands, and uttering the word βεκος. It was found that this vocable

existed in the Phrygian language, and meant "bread;" whence it was sagely

inferred that the Phrygians spoke the original language, and were the most ancient

people. There is in this story such a delicious naïveté, that one could hardly

expect that it would have happened in any except very early ages. (Farrar

1860:9–10)

One obvious difference in the treatment of the story of Psammetichus' inquiry in these

two 19th-century texts in comparison with modern language scholarship is that Grimm and

Farrar rejected what they perceived as Psammetichus' assumption that untutored children have

innate access to language, whereas many 21st-century scholars are receptive to that assumption.

That gap is, of course, formative to how the story is approached. But prescinding from their

differences of orientation toward the story, the implied historiographic stance of Grimm and

Farrar contrasts with that of O'Grady et al. and their contemporaries. Both Grimm and Farrar

stuck closely to the authentic details of the passage from Herodotus, without seeking to make

them less alien. Although both referred to the story as an 'experiment', and Grimm objected to

the linguistic isolation of such 'miserable' children as a 'cruel place[ment]', neither Grimm nor

Farrar assigned Psammetichus to a role in the 19th-century intellectual world, or held him

responsible to their local standards. In fact, both scholars situate the story firmly in the past: to

Grimm 'The whole story sounds highly fantastic', while Farrar states outright that 'one could

hardly expect that it would have happened in any except very early ages'. Like 21st-century

scholars, Grimm and Farrar found the pharaoh's conclusions untenable, but they did so

recognizing that Psammetichus' inquiry belongs to the past—a past in which they did not expect

their own conceptualization of language, or their own terms for posing questions about it, to prevail. It is salient that Farrar introduced the story by reminding readers that "However strange and even ridiculous these views may appear to our somewhat superficial and unphilosophical age, it is far more difficult to understand them truly than to speak of them contemptuously" (1860:8–9).

8.   *Conclusion*

Herodotus' arresting story has been handed down through the history of western language science for many reasons. In the 21st century, it continues to carry a complex communicative burden. On one hand, the story evinces the longevity of linguistic-epistemological questions. On the other hand, it is presented in such a way as to model fashionable ahistoricity. Modern language scholarship elaborates on the story's characters, setting, and plot to satisfy present-day dramatic appetites; updates Psammetichus' inquiry into 'the first recorded psycholinguistic experiment'; and then undermines the story for its nonconformity to contemporary social-scientific ethics. That is to say, we assimilate the narrative into our own world, only to dismiss it. Both the remodeling of the story and its rejection take place with reference to 21st-century norms and attitudes.

Because the story of Psammetichus' inquiry is prevalent in textbooks and other introductory materials, one might assume that its purpose is to introduce modern students of language to the history of linguistics, or at least to remind them that the discipline has a long history. However, framing this 2700-year old text in the now-conventional manner, which relativizes it to the world of the reader, paradoxically serves to orient neophytes away from inquiry into the past. It is ironic that Herodotus—whom Cicero famously called the "father of

history" (*De Legibus* [1, 5]; see Dyck 2004:69–70)—is recruited in this way to vitiate historical

reflection, diverting attention away from what Law (2003:5) represented as a key responsibility

of students of the language sciences, that is, to "learn to listen to [what texts from other cultures

and times] say with openness and acceptance".

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NOTES

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[i] To locate these examples, I followed up on the sources cited in published exegeses or discussions of the story; I searched online databases, using combinations of keywords such as 'Psammetichus' (including the name's alternate spellings), '*bekos / becos*', 'goat / goatherd', 'Phrygian', 'infant / newborn', etc.; and I inspected a large convenience sample of published materials on language-related topics, including both materials that I judged likely to cite the story, and ones that I had no reason to expect to do so. My focus is on how Herodotus' narrative has been employed in discussion of language-related issues, but it is worth noting that other disciplines have exploited the story as well, including psychology (Dennis 1941:179), sociology (Ossowski 1962:16), anthropology (Fox 1971:283–284), education (Demirdjian 2002), economics (Hombas 2005:182–183), and children's literature (Baldwin 1912).

[ii] Borst (1995[1957–1963]:39–40) argued on the contrary that Psammetichus' orientation was decidedly Egyptian, not Greek, on the grounds that the pharaoh assumed that ethnic groups could be identified through their languages.

[iii] For example, see the writings of Frazer (1918, Vol. 1:375–376), Heidel (1935:57–60), von Fritz (1936:329), Allen (1948:45–46), Groten (1963:80–85), Brown (1965:66–67), Benardete (1969:32–35), Lloyd (1976:4–12), Calder (1983:50), Campos Daroca (1992:50–55), Christ (1994:186), Golden (1995:11–12), Thompson (1996:45–51), Harrison (1998:12), Hollmann

(2000:220–221), Gera (2003:68–111), Heath (2005:9), Munson (2005:19–23), and Ward (2006:6).

[iv] Texts that cite the passage in various contexts with reference to the question of an original human language include Hakewill (1635:Ch. 1, Sec. 2), Edwards (1693:Ch. 2), Charnock (1863:195), Hutson (1897:55–57), Kroeber (1917:174–175), Woolner (1938:5), Genette (1976:159–160), Fromkin & Rodman (1978:20–21, and subsequent eds.), Shattuck (1980:44), Olender (1994:14), Collinge (1995:203), Eco (1995:49), and Kellman (2000:4–5).

[v] A hundred years later, one Nathaniel Smart added to the literature linking the word *bekos* to scholars' names. In a laudatory poem that appears in the unpaginated front matter of Cave Beck's (1623–c. 1706) 1657 *Universal Character,* Smart alluded to Psammetichus' inquiry, then fancifully wondered whether the children's cry anticipated Beck's construction of a universal language, suggesting that Beck's efforts "to retrive again / One common speech should be thy work O *Beck*".

[vi] Among texts that advert to the passage in discussion of the origin of human language are: Lamy (1998[1675]:46–47), Beauzée (1966[1751–1772]:252–253), Schele de Vere (1853:19–20), Müller (1861:332–333), Farrar (1865:13–21), Bloomfield (1983[1914]:13), Vendryes (1925:9–10), Ivic (1965:15), Leroy (1967:24), Marx (1967:443–444), Stam (1976:109), Aarsleff (1982:280), Yule (1985:2; 3rd ed., 2006:1–2), Crystal (1987:288), Atkinson, Kilby & Roca (1988:3), Fano (1992:48–49), Hewes (1992:4), Danesi (1993:5–6), Ellis (1999:3), Mengham (1993:57–58), Renfrew (1994:116), Wrigley (1996:63), Wardhaugh (1977:2), Comrie (2000:991), and Aronoff et al. (2005:19).

[vii] Gennette (1976:159–60, n. 2) cites a number of writers who have objected that Psammetichus ignores an obvious possible source of the word *bekos* in the children's imitation of the goats.

The point has seemingly been re-invented by many who narrate the story, going back at least as far as the scholia mentioned by Golden (1995:12) and Gera (2000:26, n. 19).

viii Vico (1968[1744]:47) adverts to Psammetichus I in Herodotus' *Histories* (2, 151ff), but does not mention the passage in (2, 2).

ix Other writers' stories of what Trabant called "first words in wild places" (1996:39) from around the same time may have been more self-consciously modeled on Psammetichus' inquiry. For example, Louis-François Jauffret, founder of the Société des Observateurs de l'Homme, cites the story directly in a text from 1802 reproduced in Hervé (1909:526).

x Trabant and Ward's (2001) collection of essays displays a range of recent research on glottogenesis.

xi Additional citations of the story in the context of language acquisition include: Caspari (1968:50–51), Shenker (1971:25), Dale (1976:6), Feldman et al. (1978:354–355), Berko Gleason (1985:23–24, and subsequent eds.), Reich (1986:297), Tartter (1986:4, 528), Bickerton (1991:59), Thomason (1991:248), Berreby (1992:44), Nocentini (1992:469), Gleitman (1993:s17–18), O'Grady, Dobrovolsky & Aronoff (1993:361), Rymer (1993:3–5), Gleitman & Newport (1995:5–6), Berko Gleason & Ratner (1998:377–378), Osborne (1999), Boysson-Bardies (1999:91–92), Ridley (2003:169), Bleile (2004:17), Galantucci (2005:738, 761), and Altman (2006:259).

xii Campbell and Grieve (1982) analyzed these other "royal investigations of the origin of language" and provide references.

xiii Powell (1960:88) indicates that 'διαπειρα' appears only two other times in Book 2 of the *Histories*: with reference to Psammetichus' attempt to test whether the source of the Nile is

really bottomless (2, 28); and with reference to Egyptians' practice of recording historical

materials (2, 77).