

At the Dawn of the Call: From Human to Animal before the Division of the World

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'In the beginning was the word
And the word was aardvark'

Oulipo, *Aux origines du langage*, Bibliothèque oulipienne no. 121

First I think I should explain that call. It echoed in my ears for the first time a very long time ago and far, far away: on the Roof of the World, the Afghan Pamir, more than 30 years ago. It was uttered by a Kirghiz shepherd following a herd of sheep. Even if it is not in fact possible to transcribe that call accurately – the combination of the phonetic parameters that determine it would necessitate a representation using a graph or numerical matrices – I will attempt to give it a written shape, HAY, while admitting that this transcription denotes an abstraction that subsumes many possible realizations. But be that as it may. A few years later, when I was living in the Haut-Livradois, in the deepest heart of rural France, I was surprised to hear that call again on the lips of an Auvergnat peasant who was taking his sheep to the meadow. This unlikely coincidence led me to take a closer interest in the problem of communication between humans and animals. It is the essence of that thinking that I would today like to pass on to the readers of *Diogenes* in an issue devoted to the East/West contrast.

First of all we should note that the East has always used this type of proto-language, which was integrated into the daily practice of herders without any other kind of process; the West, on the other hand, knocked itself out trying vainly to codify it: I am thinking particularly of the *Projet de langage phonétique universel pour la conduite des animaux* by the army's chief veterinarian E. Decroix.¹ This good gentleman, who was absolutely convinced of the superiority of his system, donated a bronze medal to the Société d'Acclimatation, which was intended to reward the first person to produce an animal that responded to this language. The medal is still sitting in its velvet case awaiting its recipient. . . .

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My working hypothesis is as follows: intermediate between intra-species animal communication and intra-species human communication, at a probably distant moment in the evolution of hominids, there developed an *interspecies* communication between humans and animals. Chomsky's traditional position denies this possibility, but I am basing myself on work by N. Edelman (*Biologie de la conscience*)² that questions Chomsky's formalist approach. I would also like to remind readers, following S. J. Gould's remarkable series of clarifications (*Wonderful Life* and *Life's Grandeur*)³ that evolution is not a ladder (to say that humans descend from monkeys is a deceptive short-cut), but a bush-like structure at the outset, most of whose possibilities were brought to a halt as a result of the action of chance.

Communication that takes place within a particular species in the animal kingdom, wherever it is situated in the phylum, is called *intra-species*. This means quite simply that the individuals interacting share knowledge of the code in which the message is transmitted, regardless of whether that knowledge is acquired (humans) or innate (animals). Animal communication⁴ is a finite catalogue of vocalizations/calls (danger approaching, marking territory, rutting) that in the rhesus monkey comprises as many as 37 possibilities.⁵ But we must realize that the limited nature of this catalogue is adequate for survival: the vervet monkey (*Cercopithecus aethiops*), which has a fairly small brain, can nevertheless discriminate between four kinds of predator – eagles, pythons, leopards, baboons – and produce four associated kinds of warning call. Species such as the bee make use of continuous analogue signals (a dance); others, such as several bird species (see work by W. H. Thorpe), can give messages that lie, for instance the owl protecting its nest that imitates the cries of small mammals. A rudimentary system of communication is thus not without its refinements. Human communication is part of this continuous scale, which it carries further and diversifies.

Let us suppose that the first snatches of proto-language appeared in Africa with *Australopithecus afarensis* (the celebrated Lucy), four million years ago. These rudiments of human communication are most likely to have used the visio-gestural rather than the audio-vocal channel (remember that *ab initio* the function of the ear-larynx canal was for balance and feeding; it was not until the larynx descended into the throat that the baby became a human being; Darwin was astonished at the high price paid for speech, which was the very real risk of choking).⁶

I will allow two Spanish biologists to describe the communication process for us:

For *Australopithecus* food was mobile and audible. The first characteristic ensured that it acquired visual accuracy and motor synchronization, the second activated new chains of neurones. Thus animals' cries were a kind of audible signal that directed *Australopithecus* as it came closer to its quarry. The first linguistic reflexes appeared around three million years ago and must have been comparable to echolalia and the babbling of our newborns: first, the sound was a simple lung expansion with air passing over the vocal cords, then it became diversified with the gradual intervention of the phonic organs. It was triggered by hunger, thirst, fear. Later, with the improved ear-larynx connection, *Australopithecus* managed to imitate the sounds it heard, made by the animals it hunted and its predators.⁷

Homo habilis (who had stone tools to bring down his quarry) and *Homo erectus* (who

discovered fire) took a million years to refine and polish the instrument that is language. When *Homo sapiens* began the long march which took him from Africa all round the world about 100,000 years ago, he could talk. Biologically the programming has not altered since then and the brain circuitry remains the same. It is at the juncture between *Homo erectus* and *Homo sapiens* that I shall situate the emergence of interspecies communication. Archaic communication capacity (which is associated with the limbic system – the ‘reptilian’ brain where calling, wailing, sobbing are stored) is still present as perceptible traces in the language capacity that is associated with the higher centres of evolved consciousness in the neo-cortex. All language, however rudimentary, is a tool for describing reality, as I have already pointed out. It absolutely has to be adapted to its environment. So I am starting from this banal observation.

In the ontological relationship that connected them to the world, hominids were both takers and givers of substance. It was the brick of life-related exchange that built evolution. Humans surveyed the animal world: they were on the lookout because they were hunters; they had their ears pricked because they were being hunted (how many hundred thousand years were required to develop that valuable ability just to detect someone watching us from behind?).

So at the origin of human communication (and before language as such) I postulate a primitive system with two polarized vocalizations:

- somatotropic (+ +): to draw the quarry closer (+) in order to catch it (+)
- somatofugal (– –): to chase off predators (–) and avoid being killed (–).

Thousands of years of hunting led hominids to observe empirically the effect of their vocalizations on animals. The system developed further in *Homo sapiens*, and allowed the beginnings of domestication, which, as F. Sigaut⁸ reminds us, was not justified by nutritional needs (the cost of developing and applying pastoral techniques is too high compared with hunting), but by the wish to exploit products from the living animal and its capacity for work. For this to be achieved detailed observation of the animal was essential in order to get the most out of it as a means of production. From these efforts, which precede domestication and run alongside increased contact with certain species, we can date the appearance of an additional vocalization:

- somatoneutral (Ø Ø): to neutralize the animal’s movement (Ø) so that it stays at a constant distance from its master (Ø).

This rudimentary system, once acquired, had the advantage of stability: since it was based on mimogesture it could never be forgotten. Over thousands of years it led to the transition to language, within which it then remained embedded and established, and this is what I am now going to try to explain.

The transition to language: *huchement*

Since we need to account for an archaic, limited system of communication designed to externalize a basic subcortical excitation that is nevertheless now part of the most elementary functions of articulated language, we are looking for a verb between 'shout' and 'speak'. All the writers before me who have taken an interest in the subject use the notion 'call' (*appel, Lockruf, zawolanie, vozglas, iinlem*, etc.). But is it not contradictory to use this word, for example, for the action of *shooing away* animals? Personally I prefer to reactivate an old medieval French verb *hucher* ('to call with a shout or whistle'), from which I form a noun *huchement* that I define as follows: *a sound (articulated or whistled) that humans use with animals to influence their behaviour*. As I said earlier, a precise notation of *huchements* is tricky: the variability of the vocoid and contoid segments would fall into the domain of radiokinephotography. The heterogeneous nature of my sources (oral ones in my surveys, written ones in my reading, and the information my colleagues around the world have been good enough to give me) means that I am deliberately sticking within the ordinary written system and leaving out supra-segmental parameters (intensity, register), even though they are highly significant.

The *huchement* is a dialectical cross between the tension of a shout progressing towards speech and the relaxation of speech into a shout. Grammarians are scarcely interested in it, if at all. For example, P. A. Lemare, in his *Cours de langue française*,⁹ says this:

TAC, this is the first language, exclamatory, imitative, an undifferentiated language. . . . It was not invented. It is a spontaneous effect of the vocal organ. Hitherto humans were hardly different from sheep that can say beh.

First, I propose to isolate 'expressive' *huchements*, since expressiveness does not automatically denote intensity and affectivity but indicates rather the wish to establish communication, to externalize something. This intention is realized through imitation. Reproduction of an animal's call may vary considerably. The Danish linguist K. Nyrop noted with amusement that French ducks say 'coin-coin' whereas Danish ducks say 'rap-rap'. In fact Mr Duck goes 'reb-reb' to indicate his desire to mate, to which Ms Duck replies with a more or less interested 'coin-coin'.¹⁰

'Impressive' *huchements* are designed to provoke a reaction from the animal by evoking a movement. They proceed from observing the effectiveness of certain sounds on animals, which perceive them more clearly and react better to them.

'Descriptive' *huchements* refer to the name of the species or individual, a physical or behavioural feature: they are very different from those above and have a marked linguistic shape.

'Injunctive' *huchements* form a heterogeneous group (imperatives, adverbs of place, prepositional phrases) whose transition into *huchements* removes their grammaticality.

I am now going to put flesh on my argument by applying it to the Turkic languages, where there are three matrices of impressive *huchements*: BA (somatotropic), TCHA (somatofugal), AY (somatoneutral). Let us take the last, which I mentioned at

the start of this paper. It may be affected by the following mechanisms: doubling (*ay ay*) or tripling (*ay ay ay*); inversion (*ya*); expansion to the left/right ([*h*]ay[*t*]); composition (*ayda*). Most often the interpretation of the *huchement* is related to two sememes, the first denoting the required movement, the second the intended species (reduced to the opposition large/small animal). Truth forces me to point out that it is the supra-segmental parameters that are crucial for interpretation. A difference in the intensity of the *huchement* may mean a modification or inversion of the movement required of the animal. I should stress that this is exactly how animal communication works: 'The zebra uses the same mouth openings to indicate the degrees of intensity of its friendly or threatening mood'.¹¹ With these reservations, I shall give some concrete examples of three *huchements*: one to call the animal forward (somatotropic), another to shoo it away (somatofugal) and the last to spur it on (somatoneutral).¹²

I will proceed as follows: after reviewing reported incidence in the Turkic languages, I shall examine what I found in other eastern languages, then in Romance languages, especially French. Unfortunately I cannot give all my sources, unless I were to increase the length of this paper fourfold, so I refer readers to my specialized publications.

The somatotropic huchement to round up sheep and call them in

In Turkey there exists the form 'pr(r)', clearly formed by an occlusion (to make the animals halt) followed by a trill of variable length (move forward). It can be heard, very clearly uttered, in the fine film by Yılmaz Güney *Sürü* (The Flock), when the animals get frisky in the village and the shepherd rounds them up. In fact it is mentioned as early as the end of the 19th century by one of the founding fathers of American anthropology, H. C. Bolton, in eastern Turkey (the Van region) with the following details: 'the r vibrating with a particular motion of the lips'.¹³

If we continue our journey eastwards, we find the *huchement* among the Turkmeni and Uzbek as 'k(u)rr(r)', which is mentioned in the great epic *Alpamis* ('the shepherds calling *qur-hayt* make the sheep go forward'); I would also refer readers to H. Narliev's moving Turkmeni film *Nevestka* (The Daughter-in-law), where the *huchement* can be heard several times addressed to the sheep.

In this form, with a velar occlusive and labial vowel, the *huchement* is mentioned in the 11th century in the *Compendium of Turkic Languages*, and the grammarian (who is as precise and meticulous as Panini for Sanskrit) adds that the *huchement* can be expanded with a final [h] that does not appear in normal language, and that it is used to call the foal hanging back behind the mare (probably when she is being milked). Nine centuries later Ella Maillart found it among the Uighur of Xinjiang: 'With him is a fellow whose mouth is all puckered from making loud krr! krr! to get the mules to walk on'.¹⁴ In fact, moving the occlusion towards the back of the oral cavity must be correlated with the size of the variety of animal involved: 'prrr' for sheep, 'krrr' for equine species – in the latter form there are also variants for calling oxen or camels to water.¹⁵ In Afghanistan I came across the *huchement* among the Uzbek from Badakhchan and the Kirghiz from Pamir. A *qazaq* work song used to call the sheep

(and also – and this is very significant – to call the children back to the yurt when they have gone too far away) contains these lines: ‘The sheep’s baby is my All-Brown One,/ Do not break your neck my dearest,/ The ancestor-protector blesses and protects you,/ Oh my little lambkin where are you? *puchayt puchayt*’.¹⁶ The difference in the written form shows that the trill is voiceless where the vibrated sound [r] becomes its homorganic counterpart. Other Turkic languages from the Caucasus or Siberia, such as Karachay-Balkar and Bashkir, use the same *huchement*. It is present too in many languages from the Mongol group, such as Xalx, in the form ‘prrr/brrr’, as well as Ordos with a dental occlusion ‘drrr’.

Let us leave the Altaic family and discover the *huchement* in Arabic, expanded into the complex form ‘pr(r)cht’, as well as Berber, where we note that the trill is also used to halt the herd of sheep.¹⁷ The Dardic languages also have an expanded variant, as do the Iranian languages, both western (Persian, Lori) and eastern (Dari), where the trill is preceded by an occlusion that is sometimes labial and sometimes dental. In Hindi, a supporting vowel appears after the trill (‘He [*the boy*] climbed up behind his flock calling drree drree to keep his animals together’).¹⁸ Thanks to E. Siatkowska’s remarkable work, it must be the Slav languages that provide us with the most complete collection, since for calling sheep we have: the trill alone (rrr), with initial occlusion (pr, br, tr, vr), distorted by breathing (pshsh, pss), with left expansion (tpr) or right (prst) and even overexpansion (prrsyo, brrsta).

In the Romance languages documentation is so profuse and diverse (because of patient research carried out by 19th-century ethnographers and linguistic atlases published in the first half of the 20th century) that I will just give an overview. In France ‘pr/br’ is used in the Marne, Seine-et-Marne, Centre, Massif Central where the trill becomes a bilabial occlusion with a prolonged vibrating movement of the lips. The *huchement* is noted by Blavignac as early as 1879, then by E. Rolland and Régis de la Colombière in Provençal. In his fascinating work on the pastoral migrations in the Cévennes, A. M. Brisebarre observes: ‘To call his flock the shepherd always addresses the leader, the tame ewe. The call is uttered in the singular: “br br beyci bien”, that is, “viens ici, viens” (come here, come).’¹⁹ In Béarnais in the Pyrenees, in Spanish, Italian, Romanian, the trill with labial attack is used to call the sheep, sometimes to shoo them away. A variant with fricative attack ‘xurro’ is reported for goats and their young: ‘en algunas zonas francesas es, no sólo voz de llamar al macho cabrío, sino también “macho cabrío”’.²⁰ For the Germanic, Scandinavian and Anglo-Saxon languages I would refer to the hundreds of examples in the monumental work by D. Thomas,²¹ who formulates the following hypothesis:

Call-words to animals with pr or br as the first two letters of the word, in use in Western Asia and in Central and Western Europe, suggest yet another westward movement of people which took place in prehistoric times.

To conclude I would add that a variant with velarized initial ‘krr/grr’ is a specialized call for pigs (French *goret*, Spanish *gorrin*, Italian *kirilla*) in southern France, the Iberian peninsula and Italy.

The somatofugal huchement to chase dogs away

In Turkey the *huchement* has the form OCH(CH), very often expanded into 'ocht/öcht/ucht'. It is interesting to note that it has given rise to a rich vocabulary, which is most instructive for assessing the lexicalization of the *huchement*: *ochoch* 'dog', *ochik* 'pup', *hüchlemek* 'to excite a dog', *hochmak* 'to bark', *üchmek* 'to jump upon while barking', *hicht* 'dog collar', *öchöch* / *hoch* / *host* 'sshh, be quiet!'. We now suddenly jump to the other end of the Eurasian continent, to a group of languages belonging to the Altaic family just as Turkic does: in Orok, among the Tunguz, the *huchement* 'us' is used to chase a dog away.²² If we cross the Sea of Okhotsk and land in Japan: 'ochi / wochi' is used both to silence a dog and to calm a person down.²³

Of course I am tempted to see in the English verb 'hush: to repress the agitation or clamor of' (Webster, 1976) a lexicalized trace of the *huchement*, particularly as the dictionary tells us that the verb was reconstructed from a Middle English onomatopoeic *husht* 'used to enjoin silence'. And there is a quite significant detail given about the verb's use: 'when imperative, *sh* often prolonged'. Nowadays the *huchement* as such takes the form of a duplication 'hush hush'. Another detail to be taken into account is the term 'hush-puppy' designating a variety of bread that could be given to dogs in the past. The French form of the *huchement* that was used to shoo away dogs was reported by dialectological dictionaries in the variants 'uch, us, ust', and later passed into the ordinary language, but quite late (in the 19th century according to Dauzat), in the form 'oust, ouste'.

The somatoneutral huchement to urge a horse on

We conclude our paper with a brief catalogue of the incidence of two very widespread *huchements*.²⁴ In Turkey, a country of horsemen like no other, the first has the form DA(A)H. It is used to make the horse one is riding start moving. It has a number of quite standardized derivations: *dahlamak*, *dehlemek* 'urge a horse on', *dihlemek* 'spur on an ox'. In the doubled form *dada*, *dahdah* it designates in Turkish baby-talk both the horse and the action of riding a horse. My informant in this case, Metin Döner, a coachman in Büyükada, used the other *huchement* to get his horses moving, with the form I(I)H, that is, a closed, anterior, more non-labial vocoid followed by a breath of variable intensity.

The first *huchement* exists in Persian, Dari, classical Arabic as well as dialects (Syrian, Palestinian, North African). The Greek coachmen on the island of Spetses, off the Peloponnese, have it. In Slav languages hundreds of reports have been collected of 'di' on the one hand and 'hi / hü' on the other. We should note that this last form is an inversion compared with the Turkish *huchement*: the breath precedes the vocoid. This is also true for France where, alongside 'dia', we find 'hue' and 'hie' (see von Wartburg's dictionary) to make horses go; in France these *huchements* have developed semantically in many ways: to turn right, to make the horse stop, to shoo off goats and sheep, etc. Child vocabulary also has *dada* for 'horse' and *aller à dada* for 'to ride a horse'. The *Glossaire étymologique et historique des patois et parlers de l'Anjou* (Angers, 1908, *q.v.*) says in relation to 'hue': 'It is also used to make a child feel

ashamed of some reprehensible action: *hue, hue donc, villain laid!* (ugh, ugh, you naughty boy!).’ In addition I should point out that there used to be a technique of ploughing *en à-hue* (left) as opposed to *en à-dia* (right).

I must mention – and this absence is significant – that in the eastern Turkic world these *huchements* are unknown. Indeed in Central Asia and Mongolia people use ‘tchu’ to make their horse move off or gallop when they are riding it; the Uzbek monolingual dictionary glosses the article ‘tchuv’ like this: ‘when you say “tchouv”, your horse flies along faster than a bird’. And there is no difference in Kirghiz: ‘to a horse that is not getting on the word tchou gives energy’ (Judaxin). The famous Kirghiz writer Tchingiz Aitmatov writes in *Adieu Goulsary*:²⁵ ‘Come on, let’s go, tchou! tchou! Go on with you!’ Several variants have been reported among the Mongols, especially in Xalx. Further east, for example among the Tunguz in the far-eastern Asian tundra where there are hardly any horses left, the *huchement* is used to spur on harnessed reindeer.

Finally I will note that, if the horse is not being ridden, people will almost always use HAY. This is so in Turkey and among the Kirghiz where the *huchement* becomes stronger as ‘hayt / kayt’, witness Aitmatov: ‘He [*the foal*] responds to the voice like a dagger in a hand, watch him gather speed. Ait, aït aita-a-ai’, or again: ‘kaït-kaït-kaït! shouted Tanabaï and . . . he drove his herd [*of mares*] further off’.²⁶ And in a translation into Tajik of his most celebrated short story (‘Jamila’),²⁷ I find: *asphârâ ba xirmanjâi hay karda âvardem*, ‘I brought the horses to the threshing floor calling “hay”’. The *huchement* has reached the furthest of the Turkic languages, Yakut (North-east Siberia), where it has even produced a verb *haydag* ‘to spur the horses on’. Granted, it may be a borrowing from Mongol, where the *huchement* is attested in the epics of past centuries, as W. Heissig tells us,²⁸ to round up and feed the horses: *zusammentreibt und sie klares Wasser trinken und gutes Gras fressen*.

In Russian and the Slav languages the *huchement* is used to make a horse gallop when it is being ridden, whereas in the Latin languages, as Diego de García informs us, it is used indiscriminately to spur on horses or oxen. In Middle French *haië*: ‘a carter’s shout to drive his horse on’ is extended to plough animals (see von Wartburg, s.v. *hay*).

Back to the source

And so we have come full circle. At the end of this paper we have returned to the *huchement* we set off from at the start. I have had to drag my readers over a fairly hectic obstacle course. We have galloped from one end of Eurasia to the other. We have looked into an extensive bibliography, deciphered ancient manuscripts, run microphone in hand after herders from different language, cultural and ethnic groupings . . . and we have done all that with the aim of casting doubt on the conviction that the language faculty emerged fully armed, like Minerva, from the human brain.

There are deeper synergies: it is probably through the faculty of sight and its evolution that one day we shall be able to explain the ability to speak. And this brings me to an aporetic observation: I have tried to show that the East/West divi-

sion disappears in human/animal communication, which is universal because it is ancient; that it is possible to find in present-day languages more or less well-established traces of an ancient communication system and that these traces are extraordinarily similar. However, we cannot go any further. To use S. J. Gould's image, I have run up against the left-hand wall of evolution. And that wall is impassable. Just as physicists go back to a nanosecond after the Big Bang but know they cannot go any further, I realize with a certain alarm that our linguistic tools allow me to go back to the sources of the development of language, but absolutely forbid me to explore its origins. By other routes I have reached the same fault-line that forced the 19th-century founders of the Paris Société de Linguistique formally to forbid its members, on pain of exclusion, to take an interest in the problem of origin of languages.

If linguists cannot go beyond the wall (or perhaps push it back a tiny bit), let us hope that one day neurobiologists and physiologists manage to do it . . .

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Translated from the French by Jean Burrell

Notes

1. E. Decroix, *Projet de langage phonétique universel pour la conduite des animaux*, Paris, Société Nationale d'Acclimatation de France, 1898.
2. N. Edelman, *Biologie de la Conscience*, Paris, 1992, pp. 317–31.
3. S. J. Gould, *Wonderful Life*, New York and London, 1989; *Life's Grandeur*, London, 1997.
4. W. C. Lanyon and W. N. Travalga (eds), *Animal Sound and Communication*, Washington, 1960; H. Frings and M. Frings, *Animal Communication*, New York, 1964.
5. J. Corraze, *Les Communications non verbales*, Paris, 1983.
6. S. Pinker, *The Language Instinct*, New York and London, 1994.
7. C. Ramírez de la Lasta and M. García Vives, *Les Réflexes linguistiques*, Paris, 1981, pp.184 et seq.
8. 'Un tableau des produits animaux et deux hypothèses qui en découlent', *Production pastorale et société*, 7, 1980, pp. 20–36.
9. P.A. Lemare, *Cours de langue française*, vol. I, Paris, 1819.
10. O. Ferhinger, *Encyclopédie des oiseaux*, Paris, 1956, p. 396.
11. J. Corraze, 1983, *op. cit.*, p. 82.
12. This does not contradict what I say above: if, for instance, I want my dog to run by my side while I am jogging, I use a somatoneutral *huchement*; similarly, if I am on a horse (yak, camel) and I want us to move forward together in the same direction.
13. H.C. Bolton in *American Anthropologist* X(3), 1897, pp. 69–90.
14. E. Maillart, *Oasis interdites*, Paris, 1937, p. 173.
15. See R. Dor, 'Les huchements du berger turc: Du huchement-aux-morts à l'appel des chevaux', in *Les Ottomans et la mort*, Leiden, 1996, pp. 38–55.
16. A. Hali, Z. Li and K. Luckert, *Kazakh Tradition of China*, University Press of America, 1997, p. 60.
17. J. Bynon, 'Domestic Animal Calling in a Berber Tribe', *Language & Man*, The Hague, 1976, pp. 39–61.
18. C. Petit, *Orissa ou les chasseurs de pluie*, Paris, 2002, p. 10.
19. A.M. Brisebarre, *Bergers des Cévennes*, Paris, 1978, p.56.
20. V. García de Diego, *Diccionario de voces naturales*, Madrid, 1968.
21. D. Thomas, *Animal Call-words*, Carmarthen, 1939, p. 68.

22. See R. Dor, 'Les huchements du berger turc: I. Interpellatifs adressés aux animaux de la cour et de la demeure', *Journal asiatique* CCLXXIII (3–4), 1985, pp. 371–424.
23. W. G. Aston, 'Japanese Onomatopes and the Origin of Language', *Journal of the Anthropological Society of Great Britain & Ireland* XXIII, 1894, pp. 332–62.
24. See R. Dor, 'Les huchements du berger turc: III. Interpellatifs adressés au gros bétail', *Turcica* XXVII, 1995, pp. 199–222.
25. Tchingiz Aitmatov, *Adieu Goulsary*, Paris, EFR, 1968, p. 47.
26. *Ibid.*, pp. 28, 98.
27. Tchingiz Aitmatov, 'Jamila', *Charqi surx*, no. 12, 1960, pp. 77–114.
28. *Erzählstoffe rezenter Mongolische Heldendichtung*, Wiesbaden, 1988, vol. I, pp. 301–2 and note 110.