

The Evolutionary Emergence of Language

Social Function and the Origins
of Linguistic Form

Edited by

CHRIS KNIGHT

University of East London

MICHAEL STUDDERT-KENNEDY

*Haskins Laboratories
University of Connecticut
City University of New York*

JAMES R. HURFORD

University of Edinburgh



CAMBRIDGE
UNIVERSITY PRESS

- Locke, J. 1998. Rank, reciprocity, and relationships in the evolution of language. In C. Knight (ed), *Abstracts of the Second International Conference on the Evolution of Language*. London: University of East London.
- Macy, M. W. and J. Skvoretz. 1998. The evolution of trust and cooperation between strangers: a computational model. *American Sociological Review* **63**: 638–660.
- Monod, J. 1970. *Le Hasard et la Nécessité*. Paris: Seuil.
- Nakamaru, M., H. Matsuda and Y. Iwasa. 1997. The evolution of cooperation in a lattice-structured population. *Journal of Theoretical Biology* **184**: 65–81.
- Power, C. 1998. Old wives' tales: the gossip hypothesis and the reliability of cheap signals. In J. R. Hurford, M. Studdert-Kennedy and C. Knight (eds), *Approaches to the Evolution of Language: Social and cognitive bases*. Cambridge: Cambridge University Press, pp. 111–129.
- Sperber, D. and D. Wilson. 1986. *Relevance: Communication and cognition*. Cambridge, MA: MIT Press.
- Wärneryd, K. 1994. Language, evolution and the theory of games. In J. L. Casti and A. Karlqvist (eds), *Cooperation and Conflict in General Evolutionary Processes*. New York: Wiley, pp. 405–421.
- Wilson, E. O. 1978. *On Human Nature*. Cambridge, MA: Harvard University Press.
- Worden, R. 1998. The evolution of language from social intelligence. In J. R. Hurford, M. Studdert-Kennedy and C. Knight (eds), *Approaches to the Evolution of Language: Social and cognitive bases*. Cambridge: Cambridge University Press, pp. 148–166.
- Zahavi, A. and A. Zahavi. 1997. *The Handicap Principle*. New York: Oxford University Press.

5

Secret Language Use at Female Initiation: Bounding Gossiping Communities

CAMILLA POWER

The idea that 'gossip' or vocal exchange of social information was a vital mechanism for bonding early human groups appears plausible and concretely testable (Dunbar 1996, 1998; Dunbar, Duncan and Nettle 1995). The relatively rapid encephalisation seen in archaic-grade *Homo sapiens* is presumed to reflect the increasing size and complexity of these hominids' social groups (Aiello and Dunbar 1993). Vocal grooming in the first place and ultimately gossip offered alternative mechanisms for servicing such extensive social networks, because they saved valuable time compared with the traditional primate means of manual grooming.

This 'time-saving' argument leads to a serious problem for the gossip hypothesis of language origins, however. As our ancestors maximised brain size in response to the pressure for larger groups, they maximised their 'Machiavellian intelligence' (Byrne and Whiten 1988; Whiten and Byrne 1997). Humans appear to be selected for a capacity involving both social cooperation and alliance formation, but also manipulation and exploitation of their relationships. We cannot consider gossip as a mechanism of social bonding without factoring in this Machiavellian aspect of manipulating information for selfish purposes (cf. Kemmerer 1997). In the case of primate grooming, time becomes a currency (Byrne 1995: 200–202). The time an individual spends grooming an ally reliably quantifies its commitment to their relationship. Correspondingly, if vocal grooming and gossip mechanisms led to a reduction in time spent grooming per individual groomed, this implies a reduction in the level of commitment signalled to each individual (not necessarily equally distributed). Hence, while archaic *Homo sapiens* had larger numbers of allies than any previous hominid, those more numerous alliances would have been less intrinsically reliable.

This anomaly led Power (1998) to argue that for gossip to function as a means of social bonding, it necessarily coevolved with another independent mechanism for establishing commitment to alliances. Raising the costs, in terms

of time and energy, of forming coalitions safeguards against exploitation by 'freeriders' – those who accept benefits of social cooperation without paying the costs (Enquist and Leimar 1993; Dunbar 1999). Knight (1998) posits costly ritual performance as the means for securing trustworthy long-term alliances and sealing the boundaries of speech communities. Deacon (1997: 403–410) similarly argues that ritual cements the contractual obligations which underlie symbolic communication.

In this chapter, I will investigate specific forms of initiation ritual, drawn predominantly from ethnographic accounts of Bantu groups. In recent history, these rituals may have functioned to demarcate communities within which gossip was assumed to be reliable. In particular, I will look at how forms of special or secret language are integrated with ritual acts to provide mechanisms that prevent freeriding. What factors lead to the elaboration of such mechanisms, and do these factors correlate with increased risk of freeriding or defection from gossiping alliances? Can these case studies of the interface between linguistic and ritual signals in complex modern societies shed light on the politics of communication among Machiavellian gossiping hominids? If gossip is a means of social bonding, should it be modelled as a reciprocal trade of information (Enquist and Leimar 1993) or as a trade of relevant information for status (Dessalles 1998)?

A Prototype for Ritual: Cosmetics and Female Coalitions

In Dunbar's model for the emergence of gossip, the process is driven by the need for living in larger groups, which compromised social time budgets. Can we model a coevolutionary process giving rise to costly ritual behaviour, resulting from the same selection pressure?

Among primates, the ability to monitor relationships and alliances appears to be limited by relative neocortex size (Dunbar 1992). Pressure for larger groups leads to a greater requirement for coalitionary alliances to act as buffers against the increasing stress of group living. Under the Machiavellian intelligence or social brain hypothesis, this in turn leads to selection for larger-brained individuals. The costs of encephalisation would drive changes in behaviour to alleviate the increasing reproductive stress on females (Power and Aiello 1997; Key and Aiello 1999). Time and energy budgets of female hominids would have been most severely compromised as they were selected to produce more encephalised offspring. This implies that it was females who initially developed more efficient means of servicing alliances, to reduce social time budgets as a direct result of the costs of encephalisation (cf. Dunbar 1996: 148ff., 1998: 99).

Larger group sizes also result in increased opportunities for freeriders. Factors such as size, mobility and dispersal of population affect the rate at which cheats will encounter naive individuals whom they may exploit (Enquist and Leimar 1993). Prisoner's dilemma simulations suggest that gossip (exchange of information about others' behaviour) can function as an effective counter-measure against social cheats (Enquist and Leimar 1993, Dunbar 1999). But these models generally assume without question the uniform reliability of such gossip. In real life, that reliability will be affected by many factors including kin relatedness, rank, age and sexual strategies.

The high energetic costs of encephalisation for females imply that a key area where cheating – and exchange of information about cheats – will critically affect reproductive success is in contexts of mating. Early desertion by a mate and subsequent loss of parental investment could compromise offspring survival, or simply lengthen female interbirth intervals. The trade-offs between pursuing mating opportunities and channelling resources into current offspring will not be the same for both sexes (Hill and Kaplan 1988).

It is the asymmetry of the services exchanged between males and females that makes it so difficult to establish reciprocity. Key and Aiello (1999) use prisoner's dilemma models to investigate the evolution of cooperation as the energetic costs of reproduction rise. Female-female cooperation is the easiest to establish, since females share common goals and can exchange similar altruistic acts, such exchange being easy to monitor. By contrast, 'cooperation between males and females is much more difficult to establish and is likely to be much less common than intra-female cooperation since the currencies of exchange are usually very different' (Key and Aiello 1999: 21). However, in certain conditions, according to Key's simulations, males will cooperate with females even where females do not reciprocate. Such unconditional cooperation implies that a male may offer food or other services to a female and her offspring without guarantee of paternity or even of sexual access. But this strategy depends on two factors. Firstly, female energetic costs of reproduction must be much higher than male energetic costs. Secondly, females must develop strategies whereby males who fail to cooperate unconditionally are severely punished by long-term refusal to cooperate. Key and Aiello (1999: 25) suggest that such factors would have become operative during the late Middle Pleistocene (500,000–100,000 B.P.) period of encephalisation in late archaic to early modern *Homo sapiens*.

Crucially, in these models a form of male investment emerges without any requirement of paternity certainty. One specific model of female coalitionary strategies compelling male unconditional cooperation is the 'sham menstruation/sex strike' hypothesis (Power 1998; Power and Watts 1996; Power and Aiello 1997; Knight, Power and Watts 1995). Costly ritual behaviour and

symbolism arise as a result of reciprocal altruistic strategies between cycling and non-cycling female members of coalitions. From the viewpoint of a pregnant or lactating female, cycling females represent a threat, capable of diverting male investment away from the current partner. Male philanderers will be most interested in targeting cycling females, and specifically in locating menstruating females since this is a reliable indicator of *imminent* fertility. The menstrual signal is economically valuable: males should compete in providing mating effort for chances of access to a female who is soon to be fertile. In other words, males will be unconditionally cooperative with reproductively valuable menstrual females. A possible strategy for non-cycling females is to surround and control access to any local menstruating female, and to 'borrow' her signal. The signal could be amplified by use of blood-coloured substances, including pigment such as ochre, to broadcast to potential male provisioners that there is an imminently fertile female in the vicinity, but also to deter males from discriminating between cycling and non-cycling females. Through costly ritual performance, using dance and body paint, females signal to males: 'we are all menstruating females'.

This strategy succeeds as long as non-cycling females receive some of the benefits of male mating effort mobilised by the prospect of access to cycling females. It has an inbuilt reciprocity, since any fertile female alternates between cycling and not cycling. It also generates a basic sexual morality. Each time she menstruates, a female is put on the spot. Will she cheat on non-cycling females, and use her attractions for short-term gain? Or will she cooperate in using her attractions for the benefit of a wider coalition? Power (1998) argued that in cooperating, a cycling female offered a costly and reliable signal of commitment to a long-term alliance with non-cycling members of the coalition. Once she herself was pregnant and subsequently lactating, she expected to receive reciprocal benefits, derived from the signals of other cycling members of the coalition. Within such alliances of females who were sharing sexual signals and cosmetics to attract male investment, gossip would be established on a firm basis of trust.

Bantu Puberty Ceremonial: Cosmetics, Control and Secret Language

Puberty schools, for either sex, function as probationary periods, when behaviour, especially contact with the opposite sex, comes under strictest regulation. They feature centrally some trauma or ordeal which the candidate must endure to become a member of the adult community. Prior to initiation, individuals are not considered as responsible adults; their words carry no weight, they are not trustworthy (cf. Bellman 1984: 8). For girls particularly, the rites

advertise onset of fertility and act as a prelude to marriage, taking place in the context of extensive female coalitions.

The key examples of female initiation discussed here are the Venda *vhusha/domba* complex, the Bemba *chisungu* and the Kpe (or Bakweri) *liengu* schools, all Bantu speakers. The *sande* bush school of the Mande-speaking Kpelle, a classic illustration from the literature on secret societies, is drawn on for comparison. The Bantu schools maintained operative 'secret' languages even as their male counterparts had virtually become defunct (Ardener 1956: 85–86; Blacking 1969b: 69, 74). Certain common features are identifiable which offer a standard template for African girls' initiation.

First of all, the ceremonies were costly affairs. The girl's immediate kin had to pay ritual experts, providing food for her throughout as well as for visitors at coming-out feasts. The girl herself was removed from the labour force for the lengthy periods of seclusion – several months or upwards of a year in traditional circumstances. The primary impact of economic changes under colonialism was the cutting of these costs by reducing the length of seclusion (Richards 1956: 133; Bellman 1984: 9). However, the generosity of provisioning, the numbers of people drawn into celebrations and the duration of the rituals directly reflected on the status of the girl and her kin (Richards 1956: 133–134).

Secondly, older women controlled access to the girl and would be highly aggressive to male interlopers (see e.g. Stayt 1931: 107). While certain men might act as ritual officials, they often adopted a female identity, as if to stress the nonsexual, ritual relationship with the candidate (see e.g. Blacking 1969a: 10). Throughout, the subordinate status of the girl was repeatedly emphasised (Richards 1956: 67; Blacking 1969a: 6, 12; Bledsoe 1980: 68). One of several vivid metaphors for first menstruation among the Venda is 'to abuse the old ladies' (Blacking 1969a: 9). This expression, known only to women, according to van Warmelo (1932: 39–40), indicates the tension between cycling and non-cycling women.

Thirdly, there is advertisement of the girl's imminent fertility, which happens even where she has already been betrothed and is about to marry. The primary medium for this is some kind of red cosmetic – ochre in the Venda case, red camwood among the Bemba and Kpe – which connotes menstruation and which is usually passed between the girl and female associates. The rituals follow a general form of the girl first being made dirty and unkempt, then proceeding through a ritual immersion prior to an emergence ceremony which is highlighted by cosmetics.

These features of costly performance, control of access and coalitionary use of cosmetics match expectations of the 'sham menstruation' model for establishing alliances between cycling and non-cycling women. The last common

aspect concerns education, though it is not always clear what girls are really learning. Richards (1956) and Bledsoe (1980) challenge the functionalist view of puberty schools as an all-purpose tribal education in norms and values, from a perspective of close involvement in Bemba and Kpelle rites, respectively. According to Richards, there was little opportunity for any formal instruction. Girl candidates would be shoved out of the way, told not to look at what was going on and usually had their heads covered in blankets (Richards 1956: 126). If any useful information was handed out, comments Richards, 'the candidates themselves would be the last people to have a chance of acquiring it' (1956: 126). Both Richards (1956: 126–127) and Bledsoe (1980: 67) explicitly deny that girls acquire any practical skills that they would not have learned anyway.

Rather than practical classes, these rites are frameworks for transmission of social knowledge that is constructed as *secret* knowledge (cf. Bellman 1984: 6). What Bemba girls learn, contends Richards, is 'a secret language'. One aspect comprises secret terms and rhymes which refer to specific actions and objects within the *chisungu* rite. Richards writes: 'What seems to the educationist to be the most mumbo-jumbo and useless aspect of the whole affair may actually constitute one of the most prized items of information to the people concerned' (1956: 127). A second aspect is a 'secret language of marriage', referring especially to the taboos that constrain the physical relationship of husband and wife. Bledsoe emphasizes that 'what young initiates do learn in the bush schools is absolute obedience to Sande leaders' (1980: 68), women who are believed to wield sanctions of infertility and death. One of the legends of *sande* is that girls are taught the art of poisoning food to keep husbands in line (Bledsoe 1980: 67). So, while a régime of total obedience is instilled in the girls, they are also being introduced to the secret arts of poisoning. Bledsoe takes this paradox to signify that the girls' ultimate loyalty is not to their husbands but to the secret society leaders 'who could command them to poison their husbands for serious transgressions against higher tribal authority' (1980: 68).

The Bemba reveal similar metaphors linking women's potential to contaminate with higher powers that may intervene between husband and wife. Because of a complex of beliefs around the magical influence of sex, blood and fire, every wife takes strenuous precautions to ensure her menstrual blood does not come into contact with the family fire (Richards 1956: 32–33). It is precisely these exigencies – an etiquette of blood and fire – that form the core of *chisungu* doctrine, which her future husband hopes and expects his bride to be taught. So, the secret 'knowledge' transmitted in these rites involves both linguistic formulae referring to the one-off event of an initiation ceremony and metaphors representing a system of taboos which regulate a woman's life persistently thereafter. When ritually enacted, these taboos invoke a moral authority superseding any mere

marital authority. On occasion, this higher moral authority demands and effects physical separation of marital partners.

The Venda School of *Vhusha/Domba* as a System of Reciprocity

The traditional education among the Venda of the Transvaal offered no technological or practical training, except in 'techniques of human relationships' (Blacking 1969b: 71). In documenting Venda girls' initiation from the 1950s, Blacking writes: 'a woman who has not graduated is not "a member of the club": she has no real say in women's affairs, nor any guarantee of assistance from other women in times of crisis' (1969a: 4). The complex cycle of initiation schools, where girls would learn songs, dances and mimes, provided a framework for widespread reciprocity among Venda women.

Ideally the cycle commenced after menarche with *vhusha*, which was organised at the local village level. After being rubbed with 'dirty' red ochre on the first day, the girl spent the next four days in seclusion, where she was given over to the mercies of older girls as she attempted to learn complicated dance manoeuvres called *ndayo* (Blacking 1969a: 19). On her emergence, the girl wore special ritual dress and red ochre for a week, adopting a ritually humble posture and exaggerated form of greeting for anyone she met (Blacking 1969a: 18). Even perfect strangers could challenge the girl to respond to *milayo*, formulaic utterances in a riddlelike question-answer format (van Warmelo 1932: 49). These served as tests that she had indeed passed through the rite; if she did not know the answers, she would be ridiculed and harassed until she did. Here we can see how costly ritual signals operate as scaffolding for valid use of secret language. While the girl is still signalling her ritual graduate status, she is ruthlessly examined on her secret knowledge, so that later, when she no longer wears ritual apparel, she can prove her status using language alone.

Domba, ideally prelude to marriage, was held every three to five years in a chiefly capital. It drew together an entire age cohort of girls from surrounding districts for months or even years of practicing songs and coordinated dances, culminating in a final spectacular ceremonial dance called *domba*. Reproductive stages of menstruation, pregnancy and labour were mimed and mapped onto the landscape, renamed as parts of the female body, to effect a symbolic rebirth of the entire community (Blacking 1985: 82). Girls themselves said 'we go to *domba* because we want to learn the "laws" – *milayo*' (Blacking 1969a: 4). This body of 'esoteric knowledge', as Blacking calls it, 'refers primarily to a series of formulae in which certain familiar objects are given special names, rules of conduct and etiquette are reiterated, and the meaning of rites and symbolic objects is explained' (1969b: 69). Each ritual school had its own set of *milayo*,

formulaic phrases juxtaposing apparently unconnected phenomena (Blacking 1961: 6). Van Warmelo called these 'tests of belongingness' (see Blacking 1961: 7, note 6), since the ability to recite them proves that a person has undergone the particular ritual. The girls' *milayo* mapped familiar objects onto the human body and represented relationships between the sexes. Frequently these were so sexually explicit that van Warmelo deemed them 'obscenities': penises became door hinges, arrows or the path to the council hut; pubic hair was the grass on a river bank; buttocks were gourds. Yet, according to Blacking, very few initiated women 'understand or are concerned about their symbolism' (1969b: 71). The symbolic *milayo* involve a 'special classification of the world' (Blacking 1969b:71), utilising red, white and black to divide the world into the social categories of menstruating women, men and non-menstruating women (see for example Blacking 1969b: 80, 99; van Warmelo 1932: 74). However, only a few male ritual experts, who teach *milayo* formally to the novices, showed interest in discussing this obscure symbolism (Blacking 1969b: 71).

As far as the candidates were concerned, the *milayo* functioned as shibboleths or passwords to certain privileges of association. Recitation of the proper *milayo* 'supported a woman's claim to the benefits of an inter-district, inter-tribal, pan-Venda mutual aid society' (Blacking 1969a: 5). Blacking noted one instructor warning the novices: 'If you don't listen to me carefully, you won't get any beer!' (1969b: 71). By demonstrating her knowledge of *milayo*, a woman 'will be able to go anywhere in Vendaland and establish her right to participate in any feast that is held in honour of a novice, or drink beer which is paid as part of a novice's initiation fee' (Blacking 1969b: 71).

The *milayo*, then, countered freeriding at a direct and practical level. A girl could only learn them by attending the *vhusha/domba* schools, for which she paid fees, and provided beer to the women celebrating her initiation. Once graduated, she herself had rights in the beer provided by subsequent initiates. The recurrent cycle of female initiation schools formed the backbone of Venda women's support networks. Despite predominantly patrilineal and patrilocal descent and residence rules, women maintained considerable social influence through these institutionalised alliances which excluded men. Blacking contrasted the leverage and collectivity of pagan Venda women with the sorry situation of christianised women who had dropped out of the ritual network. Forsaking tradition, they had lost power and prestige, and especially 'the prop of moral and social support from other women' (1959: 158).

Bemba *Chisungu*: Gossip, Esoteric Knowledge and Ritual Hierarchy

Audrey Richards observed the *chisungu* ceremonies of the matrilineal, largely uxorilocal Bemba people (now in Zambia) in 1931, when economic change and

the onset of migrant labour had undermined traditional ritual life. Rites that once lasted at least six months now took three weeks (Richards 1956: 133). However, the mistress of ceremonies (*nacimbusa*) took pride in showing Richards exactly how things should be done (1956: 61). A midwife and ritual specialist of chiefly or royal lineage, the *nacimbusa* was crucial to the success of *chisungu* (Richards 1956: 57). For the Bemba, as the Venda, a system of reciprocity was generated via the series of initiation feasts. The view of Bemba men is revealing: 'No one', they say, 'would want to marry a girl who had not had her *chisungu* danced. She would not know what her fellow women knew. She would not be invited to other *chisungu* feasts' (Richards 1956: 120). Endurance of the trials and humiliations of *chisungu* admitted a girl to the women's community (Richards 1956: 131); without it, she had no social personality, and was unmarriageable.

As with *vhusha/domba*, red cosmetics were used recurrently to mark out ritual coalitions (Richards 1956: 124). This highlighted the key taboos of Bemba life, particularly the sexual etiquette around menstruation. The main body of esoteric lore – 'what women knew' – consisted of linguistic formulae, rhymes and songs associated with the *mbusa*, or sacred emblems (Richards 1956: 59–60, 187–212). These were either wall designs or pottery models representing animals, humans and domestic objects whose names, and meanings, were supposedly revealed only to initiated women (Richards 1956: 127). The truncated Bemba rite provided less opportunity for formal teaching than the Venda *domba*. Girls would handle the particular object and supposedly learn its 'song' from the repeated chanting of the women gathered at her *chisungu* (Richards 1956: 101–106). Actually, the learning process was cumulative. After initiation, the girl would be attached for the next year to her *nacimbusa* as a helper at subsequent *chisungu* feasts (Richards 1956: 127–128), each time learning a little more. How much she delved into the symbolism was a product of her own intellectual curiosity and ambition (Richards 1956: 131). A girl who really tried to accumulate *mbusa* lore was on the way to becoming one of the *nacimbusa*.

What *chisungu*, and the specific associations with each *mbusa*, taught was 'not the technical activities of the wife, mother and housewife, but the socially approved attitude towards them' (Richards 1956: 128). Snatches of *mbusa* songs could be used as cautionary reminders to a young wife of her duties by an older woman (Richards 1956: 163). The constant principle determining rank in Bemba society was seniority, whether of clans or individuals, expressed metaphorically by the verse 'The arm-pit can never be higher than the shoulder' – precedence was unalterable (1956: 72–73). When any food was offered or object revealed during the *chisungu*, it would first be presented to the oldest woman, and then repeatedly all the way down the age order to the candidate at the bottom of the pile (Richards 1956: 131). The charismatic figure of *nacimbusa*, one of the oldest women from a senior clan, occupied the central position

in this ritual hierarchy. She also had a specific important relationship to the candidates she initiated. As midwife, 'she attends the childbed of the girls she has "danced"' (Richards 1956: 132). This placed her in a position of real power. If there was any difficulty at the birth, it was assumed that the young mother had committed adultery, and *nacimbusa* would force a confession (ibid.). It then depended on her to conceal or reveal to the in-laws 'any real or supposed bad behaviour of the girl' (ibid.). Bledsoe reports a similar situation among the Kpelle where *sande* ritual leaders exercise a jealous monopoly on knowledge of midwifery (1980: 73–74). Women are fearful and respectful of the midwives who, in case of difficult labour, may tell a woman that 'she will die unless she confesses her lovers' names or any crimes she has committed' (Bledsoe 1980: 74). The midwife is then in a position to blackmail the mother, and does so. The midwives who are most patronised because they are believed to possess the most powerful medicines belong to landowning lineages and are recognised leaders in the *sande* secret society (ibid.).

These examples illustrate that it is the speaker's status within a ritually bounded in-group that determines the likely influence and credibility of gossip, not necessarily objective truth or falsity. Clearly, competition for resources and investment may drive the extent of mafia-type extortion in these situations. The Bemba *nacimbusa* is ideally senior patrikin to the girl (Richards 1956: 57). Given preferential cross-cousin marriage (Richards 1950: 228), *nacimbusa* is probably a classificatory if not actual relative of the girl's husband, so she acts as a stern check on the girl. In the Kpelle case, *sande* leaders are strongly implicated in the vicious political jostling of landowning patrilineages (Bledsoe 1980: 78–79). Hence, the extreme pressure for 'Machiavellian' manipulation of information about adultery and paternity is easy to understand. A view of such gossip as disinterested is patently absurd.

Kpe Liengu Cult: Across Ethnic Boundaries

One of the best documented secret cult languages is associated with a 'kaleidoscope of beliefs' (E. Ardener 1975: 8) about *liengu* (pl. *maengu*), also called *jengu* in Duala; these are widespread among a number of tribal groups on the Cameroon coast. *Liengu* signifies a water spirit akin to a mermaid, seemingly at home in a sea-fishing environment (Ardener 1956: 93–94, 1975: 15, note 4). The Kpe (also known as Bakweri), who live on the slopes of the Cameroon Mountain, have adopted and adapted the beliefs to their own rainforest habitat. According to Ittmann (1972), a notable feature of the cult language was its currency across ethnic and linguistic boundaries. Ardener is cautious about Ittmann's eclectic analysis of the variety of *liengu* beliefs (1975: 15, note 4).

Nevertheless, it appears that the *liengu* language, despite phonemic differences between groups, was used and recognised by several including the Duala, Kpe, Mboko and Wovea. Ardener describes it as a code with vocabulary derived from various sources (1956: 38), while Ittmann elaborates a full grammar (1972). Despite the modern decline of the rites, scraps of the secret language remained common currency among Christian, urban, educated women until recently (E. Ardener 1975: 10).

Liengu ideology was intensively hostile to men (and to white culture) (E. Ardener 1975: 11–12). The rites were enacted 'as a response to a fit or seizure that comes mainly upon an adolescent girl but also upon older women' (E. Ardener 1975: 8). Generally, it was expected that all girls would suffer this attack by the spirits; formerly, girls might go through the rites together as a prelude to marriage, staying inside one seclusion hut (Ardener 1956: 97, 99). While Kpe men understood the process as a curing of the affliction of the spirits, women instead saw that, to solve the problem, a girl had to become one of the *liengu*. During a long seclusion when she learned to speak the spirit language, the girl was immersed in the mermaid world with its peculiar anti-male, anti-European, indeed anti-'cultural' symbolism (E. Ardener 1975: 12).

Of three different versions of the rites, the most expensive, *liengu la ndiva*, lasted over a year (E. Ardener 1975: 8–10). The classic symptom occurred when the girl fainted over a fireplace and knocked one of the stones supporting the cooking pot out of place. The *ndiva* rite (meaning 'deep water') kept the closest connection with the old water spirits. A woman would come to speak to the girl in the *liengu* language. If she showed signs of understanding, a *liengu* doctor (male or female) would be summoned who sacrificed a cock, sprinkling blood into the hole where the hearthstone had been. Clearly operative in this symbolism is opposition between blood and domestic fire, comparable to the Bemba beliefs (also echoed by the Venda). The girl in the grip of spiritual powers acts in a way directly antagonistic to domesticity and cooking.

During her months of seclusion, the girl was taught the spirit language and given a *liengu* name by a woman sponsor (E. Ardener 1975: 9). During this time, she dressed in purely natural products – bark, roots, leaves. Her hair had to grow uncontrolled and she was smeared with charcoal and oil, so that she was black, resembling the spirits (E. Ardener 1975: 11). She could only 'talk' to visitors by means of a rattle, which she used for reciting *liengu* formulae each night and morning.

At the end of seclusion in *ndiva*, the girl was carried to the river, ideally by men of her matrilineage, and pushed into the deepest part of the stream, while women sang *liengu* songs. After this, the girl was regarded as a familiar of the water spirits and as one of the *liengu* women (E. Ardener 1975: 9). In a final

emergence, she was rubbed with the traditional red camwood. Following the coming-out feast, she was at last supposed by men to be immune from further attack and fit for marriage, 'rescued from the wild' as Ardener puts it (1975: 12). But 'she still continues to bear a spirit name and converses with fellow-women in the mermaid language' (E. Ardener 1975: 12).

Factors Leading to Elaboration of Mechanisms to Counter Freeriders

Examples such as the Kpe *liengu* or the Kpelle *sande* illustrate vividly that puberty schools do not exist merely to turn out docile young women who are going to be meekly amenable to their husbands. Girls are being indoctrinated in obedience, but obedience to whom? These institutions embody intra-female coalitionary strategies, generating widespread, long-term reciprocal alliances. They establish a woman's credentials as a member of a watertight 'gossiping' community. Acquisition of secret language is tied into passage through arduous ritual tests of conduct. Secret language itself comprises kernel references to named ritual actions and objects and to taboos which, once introduced at initiation, continue to govern the rest of a woman's reproductive career.

To control freeriding, it is above all important to secure reliability of in-group members, whether those are defined by clan, dialect or ethnic boundaries. This requires powerful sanctions to operate against any defector in circumstances where it is difficult for a defector to move to another group (cf. Nettle 1999). Out-group members may be assumed, as a default, to be unreliable. However, cases such as the *liengu* cults on the Cameroon coast indicate that it may be possible to forge ritual affiliations engendering goodwill across ethnic and dialect boundaries.

Factors affecting the payoffs to freeriders, noted above, are size, mobility and dispersal of population. The three groups examined here have quite different profiles. The Bemba were a sparse and widely dispersed population of shifting hoe cultivators. Richards reports a population density of 3.67 per square mile (1956: 25), with villages of between 100 and 200 inhabitants (Murdock 1967) spaced up to 20 miles apart. There would be few places for freeriders to hide. Estimates for Venda population density prior to significant urbanisation are difficult to obtain (see Stayt 1931: 1), but given their intensive forms of agriculture it is certainly considerably greater than for the Bemba. Their villages were twice as large, up to 400 inhabitants (Murdock 1967). Ardener (1956: 15) gives estimates of 122 Kpe per square mile in an overall population of 300 per square mile, indicating a degree of ethnic intermingling. Their villages were small, with less than 100 inhabitants, and so much more patchily distributed compared to the highly clumped Venda, allowing for mobility of both persons and information.

Other key factors affecting tolerance of freeriding and development of countermechanisms involve kinship and its role in labour organisation. Under the matrilineal Bemba system, a woman is unlikely to stray far from her own natal village, except in special circumstances when she is visiting or married virilocally to a headman. She would expect to be working alongside closely related women. By contrast, the Venda and Kpe women move out to marital homes where they would be in cooperation with non-kin. The Venda puberty ritual *vhusha* stresses this aspect. A mother should be last to know of her own daughter's menarche; her co-wife acts as sponsor, mobilising the community for the ritual (Blacking 1969a: 9, 10, 13). Within the puberty school, the Venda have special practices for establishing 'fictitious kinship' (Blacking 1959). Here, it is possible to see ritual elaboration arising to forge alliances in the absence of real kinship. Freeriding by close kin is more tolerable since it is mitigated by inclusive fitness (Dunbar 1999).

Risks of social defection among Bemba women would have been reduced by the factor of population dispersal, and mitigated by kinship. While the Bemba retained some ritual for admission to the women's community, they placed far less emphasis, compared to either the Venda or the Kpe, on formal instruction in linguistic mechanisms that established a woman's credentials as having paid her ritual dues. It is also unsurprising that the Bemba allowed *chisungu* to be diminished so quickly; already by the 1930s it had lost its economic purpose (that is, recruiting male labour as brideservice to the matrilineal village). By contrast, the Venda retained intact their extraordinarily complex cycle of initiation in the teeth of urbanisation and apartheid.

Special factors of economic change affected the Kpe. Formerly the staple crop had been male-cultivated plantains, but this was replaced in the early twentieth century by female-cultivated cocoyams, resulting in a labour pattern of women travelling far outside villages to collect firewood and work the farms, while men stayed at home with penned livestock (E. Ardener 1975: 7). Also appearing at this period were plantation workers, migrant labourers and strangers who contributed greatly to marital instability and divorce among the Kpe (Ardener 1956: 65; 1975: 13). Kpe women then were coming into increasing contact with strangers of both sexes, in an ethnically mixed community, as well as being particularly vulnerable to harassment by foreign males. These factors could have promoted the coalitionary strategies exemplified by the *liengu* cult, not least its capacity for crossing ethnic boundaries. Shirley Ardener describes the dramatic direct action taken by Bakweri (Kpe) women when one of them received a particular kind of sexual insult (1975: 30). Garbing themselves with vegetation grabbed from the bush – referring to the 'wild' of *liengu* – all the women of the community converged on the offender,

demanding recompense. Surrounding him, the women sang 'songs accompanied by obscene gestures' (ibid.). While other men retreated, ashamed to watch, he had to endure the display until the women had extracted a pig which was divided among them all. Ardener recounts a further case occurring on one of the ethnically mixed plantations where women combined 'regardless of tribal origin' against the foreign offender. These are traditional African tactics against sexual harassment. But the particular category of insult triggering them had connotations of 'women's secrets' revealed, with implied connection to *liengu* (S. Ardener 1975: 33).

In the cases of the Bemba, Venda and Kpe, the degree of elaboration of secret language associated with initiation ritual corresponds to the risks of social defection faced by women in their respective socioeconomic contexts. Conditions where unrelated individuals must live and work together, and where people are relatively mobile or change domicile frequently should foster freeriding. We can predict that in those conditions countermechanisms will be elaborated.

Conclusion: Relevance, Gossip and Secret Knowledge

Reciprocity need not imply egalitarianism, particularly where asymmetric exchange takes place between elders and youth. Arguments that secret societies function to solidarise tribal groups are simplistic. As Bledsoe warns, 'too much emphasis on solidarity obscures important patterns of stratification in West African secret societies' (1980: 68). The ways in which *sande* leaders, in particular, 'manipulate young women's labor and reproductive capacities dispel the notion that the Sande society is a united egalitarian organization of women joined in sisterhood to confront men' (1980: 77). When profits are to be made, says Bledsoe, 'Sande leaders readily put aside women's solidarity in favor of more lucrative coalitions' (ibid.). Their machinations intensify power differences between lineages, age groups and the sexes. But the point here is that the threads of political and economic manipulation all run through the ritual and secret society network. The aristocratic lineages own land, but this economic hegemony would be politically ineffective in the absence of the ritual leadership. Ritual leaders wield a 'media tycoon' control of communications that effectively determines who can know what.

In his study of *poro*, the male counterpart to *sande*, Bellman analyses secrecy 'according to the ways concealed information is revealed' (1984: 5). This is what *poro* (or *sande*) teaches: how a secret can be kept, and the consequences of inappropriate exposure. *Poro* may structure the political élite, as in Liberia, operate illegally underground as in Guinea, or function as workers' unions, as in Sierra Leone. In all these changeable political climates, its members discuss

and conspire 'under the security of the Poro's secrecy proscription' (Bellman 1984: 13–14). 'What must not be talked' varies according to context, but one overarching rule of secrecy, a boundary secret, secures all the subsidiary secret decisions made on a day-to-day basis. As Bellman puts it, 'the *contents* of the secrets are not as significant as the *doing* of the secrecy' (1984: 17). Boundary secrets may be illusory, fictional or even that there is no secret, but they are still a description or cipher of real social relations (cf. Murphy 1980: 203). Different cohorts of members, says Bellman, 'can be identified by their respective rights to know ... social networks can be defined according to access to types of concealed knowledge. The very identification of whether some piece of information is or is not a secret is indirectly a matter of membership identification' (Bellman 1984: 7). Display of membership through the telling or keeping of secrets 'is both a way of establishing mutual interests and a way of advancing in rank and power' (ibid.).

It is within this context of a group ritually bound to respect secrets that we should view competition for status awarded to individuals with 'relevant' information (cf. Dessalles 1998, this volume; Knight 1998). Ritual leaders such as *poro* and *sande zo* may have practical and technical know-how that is highly relevant, for instance, knowledge of the history of land rights, snake-bite medicine or midwifery. The Kpelle ethos, writes Murphy, is that 'whenever there is an important cultural skill, it is usually appropriated and controlled by a secret society' (1980: 196). Ultimately, these subsidiary societies come under authority of *poro*. Hence, the claim to relevant knowledge is based on ritual status, expressed by control of secrets whose relevance is social. As fictions, the secrets are 'irrelevant' to the external, objective world. No more or less fictional is the 'gossip' about land tenure and ownership propounded by *poro* historians, or about adultery and paternity by *sande* midwives. In the final analysis, it is ritual status that dictates relevance, not the other way round.

'Gossip' comprises manipulation of fictions in principle identical to 'secret' knowledge. As a mechanism of social bonding, gossip is by no means to be denigrated as 'small talk' (Renfrew 1998), somehow less impressive in its symbolic concomitants than full-blown symbolic language. Selection for abilities to exchange social information has tested and developed human 'Machiavellian' intelligence to the utmost. Gossip cannot be considered as some material item of trade with intrinsic value independent of context. Its value is purely social and politically determined within ritually generated communities. In this chapter, I have argued that preservation of that social value depends on a framework for concealing and revealing information. Costly signals in ritual 'flesh and blood' performance establish the framework by creating a boundary around the gossiping community. The fundamental body metaphor for such costly signals

is the shedding of blood. I have drawn on examples from African ethnography to demonstrate that ritual surrounding the concealing and revealing of menstruating females forms the primary arena for establishing trust in gossip. These examples conform closely to predictions of the 'sham menstruation' model for establishing long-term reciprocity between cycling and noncycling females.

Unlike gossip, menstrual bleeding is intrinsically convincing: always and everywhere it indicates imminent fertility. Whoever can substantiate a claim to be 'menstruating' has corresponding value, hence credibility. Even men in schools of male circumcision – high-cost signals of genital bloodshed – borrow the metaphor of menstruation for other kinds of bloodshed. The secret language of the Dogon, *Sigui*, is the language of *awa*, the sacred masks (Leiris 1948: 13). Epithets of *awa* run in ritual concatenations:

'Very strong, very very very red, very strong, very red' (Leiris 1948: 60)

Taboos laid on men in respect of the masks directly parallel the menstrual taboos that structure women's lives (Leiris 1948: 6–7). The red fibres of the masks are dyed with blood, or so women and the uninitiated believe – that is the secret (Leiris 1948: 80). The day when these fibres are dyed is named 'the menstruation of men' (Leiris 1948: 78).

References

- Aiello, L. C. and R. I. M. Dunbar. 1993. Neocortex size, group size, and the evolution of language. *Current Anthropology* 34: 184–193.
- Ardener, E. 1956. *Coastal Bantu of the Cameroons*. London: International African Institute.
- Ardener, E. 1975. Belief and the problem of women. In S. Ardener (ed), *Perceiving Women*. London: Dent, pp. 1–17.
- Ardener, S. 1975. Sexual insult and female militancy. In S. Ardener (ed), *Perceiving Women*. London: Dent, pp. 29–53.
- Bellman, B. L. 1984. *The Language of Secrecy: Symbols and metaphors in Poro ritual*. New Brunswick, NJ: Rutgers University Press.
- Blacking, J. 1959. Fictitious kinship amongst girls of the Venda of the Northern Transvaal. *Man* 59: 155–158.
- Blacking, J. 1961. The social value of Venda riddles. *African Studies* 20: 1–32.
- Blacking, J. 1969a. Songs, dances, mimes and symbolism of Venda girls' initiation schools, Part I: Vhusha. *African Studies* 28: 3–29.
- Blacking, J. 1969b. Songs, dances, mimes and symbolism of Venda girls' initiation schools, Part II: Milayo. *African Studies* 28: 69–108.
- Blacking, J. 1985. Movement, dance, music, and the Venda girls' initiation cycle. In P. Spencer (ed), *Society and the Dance: The social anthropology of process and performance*. Cambridge: Cambridge University Press, pp. 64–91.

- Bledsoe, C. H. 1980. *Women and Marriage in Kpelle Society*. Stanford, CA: Stanford University Press.
- Byrne, R. 1995. *The Thinking Ape: Evolutionary origins of intelligence*. Oxford and New York: Oxford University Press.
- Byrne, R. and A. Whiten. 1988. *Machiavellian Intelligence: Social expertise and the evolution of intellect in monkeys, apes, and humans*. Oxford: Clarendon.
- Deacon, T. 1997. *The Symbolic Species: The co-evolution of language and the brain*. Harmondsworth: Penguin.
- Dessalles, J.-L. 1998. Altruism, status and the origin of relevance. In J. R. Hurford, M. Studdert-Kennedy and C. Knight (eds), *Approaches to the Evolution of Language: Social and cognitive bases*. Cambridge: Cambridge University Press, pp. 130–147.
- Dunbar, R. I. M. 1992. Neocortex size as a constraint on group size in primates. *Journal of Human Evolution* 20: 469–493.
- Dunbar, R. I. M. 1996. *Grooming, Gossip and the Evolution of Language*. London and Boston: Faber and Faber.
- Dunbar, R. I. M. 1998. Theory of mind and the evolution of language. In J. R. Hurford, M. Studdert-Kennedy and C. Knight (eds), *Approaches to the Evolution of Language: Social and cognitive bases*. Cambridge: Cambridge University Press, pp. 92–110.
- Dunbar, R. I. M. 1999. Culture, honesty and the freerider problem. In R. I. M. Dunbar, C. Knight and C. Power (eds), *The Evolution of Culture*. Edinburgh: Edinburgh University Press, pp. 194–213.
- Dunbar, R. I. M., N. D. C. Duncan and D. Nettle. 1995. Size and structure of freely forming conversational groups. *Human Nature* 6: 67–78.
- Enquist, M. and O. Leimar. 1993. The evolution of cooperation in mobile organisms. *Animal Behaviour* 45: 747–757.
- Hill, K. and H. Kaplan. 1988. Tradeoffs in male and female reproductive strategies among the Ache: parts I and II. In L. Betzig, M. Borgerhoff Mulder and P. Turke (eds), *Human Reproductive Behaviour: A Darwinian perspective*. Cambridge: Cambridge University Press, pp. 277–305.
- Ittmann, J. 1972. *Esquisse de la Langue de l'Association Culturelle des Nymphes au bord du Mont Cameroun*. Paris: Société d'Etudes Linguistiques et Anthropologiques de France.
- Kemmerer, D. 1997. What about the increasing adaptive value of manipulative language use? *Behavioral and Brain Science* 19: 546–548.
- Key, C.A. and L. C. Aiello. 1999. The evolution of social organisation. In R. I. M. Dunbar, C. Knight and C. Power (eds), *The Evolution of Culture*. Edinburgh: Edinburgh University Press, pp. 15–33.
- Knight, C. 1998. Ritual/speech coevolution: a solution to the problem of deception. In J. R. Hurford, M. Studdert-Kennedy and C. Knight (eds), *Approaches to the Evolution of Language: Social and cognitive bases*. Cambridge: Cambridge University Press, pp. 68–91.
- Knight, C., C. Power and I. Watts. 1995. The human symbolic revolution: a Darwinian account. *Cambridge Archaeological Journal* 5: 75–114.
- Leiris, M. 1948. *La Langue Secrète des Dogons de Sanga*. Paris: Institut d'Ethnologie.
- Murdock, G. P. 1967. *Ethnographic Atlas*. Pittsburgh, PA: Pittsburgh University Press.
- Murphy, W. P. 1980. Secret knowledge as property and power in Kpelle society: elders versus youth. *Africa* 50: 193–207.

- Nettle, D. 1999. Language variation and the evolution of societies. In R. I. M. Dunbar, C. Knight and C. Power (eds), *The Evolution of Culture*. Edinburgh: Edinburgh University Press, pp. 214–227.
- Power, C. 1998. Old wives' tales: the gossip hypothesis and the reliability of cheap signals. In J. R. Hurford, M. Studdert-Kennedy and C. Knight (eds), *Approaches to the Evolution of Language: Social and cognitive bases*. Cambridge: Cambridge University Press, pp. 111–129.
- Power, C. and L. C. Aiello. 1997. Female proto-symbolic strategies. In L. D. Hager (ed), *Women in Human Evolution*. New York and London: Routledge, pp. 153–171.
- Power, C. and I. Watts. 1996. Female strategies and collective behaviour: the archaeology of earliest *Homo sapiens sapiens*. In J. Steele and S. Shennan (eds), *The Archaeology of Human Ancestry: Power, sex and tradition*. London: Routledge, pp. 306–330.
- Renfrew, C. 1998. Small talk, or why was the human revolution initially so unimpressive? Paper delivered at the Second International Conference on the Evolution of Language, University of East London.
- Richards, A. I. 1950. Some types of family structure amongst the Central Bantu. In A. R. Radcliffe-Brown and D. Forde (eds), *African Systems of Kinship and Marriage*. London and New York: Kegan Paul International, pp. 207–251.
- Richards, A. I. 1956. *Chisungu: A girls' initiation ceremony among the Bemba of Northern Rhodesia*. London: Faber and Faber.
- Stayt, H. A. 1931. *The Bavenda*. Oxford: Oxford University Press.
- van Warmelo, N. J. 1932. *Contributions towards Venda History, Religion and Tribal Ritual*. Pretoria: Government Ethnological Publications No. 3.
- Whiten, A. and R. W. Byrne. (eds), 1997. *Machiavellian Intelligence II: Extensions and evaluations*. Cambridge: Cambridge University Press.

6

Play as Precursor of Phonology and Syntax

CHRIS KNIGHT

The theme of language as play suggests inquiries into non-cognitive uses of language such as that found in riddles, jingles, or tongue twisters – and beyond this into the poetic and ritual function of language, as well as into parallels between language and ritual, language and music, and language and dance. It also provides an explanation for the obvious fact that so much in language is non-optimal for purposes of communicating cognitive information.

Morris Halle (1975: 528)

Primate vocalisations are irrepressible, context-bound indices of emotional states, in some cases conveying additional information about the sender's condition, status and/or local environment. Speech has a quite different function: it permits communication of information concerning a shared, *conceptual* environment – a world of intangibles independent of currently perceptible reality.

A suite of formal discontinuities are bound up with this fundamental functional contrast. Whereas primate vocalisations are not easily faked, human speech signals are cognitively controlled, linked arbitrarily to their referents and 'displaced' – hence immune from contextual corroboration (Burling 1993). The meanings of primate gestures/calls are evaluated on an analog, 'more/less' scale; speech signals are digitally processed (Burling 1993). When combined, primate signals and associated meanings blend and grade into one another; the basic elements of speech are discrete/particulate (Abler 1989; Studdert-Kennedy 1998). Primate recipients evaluate details of signalling performance; in speech, the focus is on underlying intentions, with listeners compensating for deficiencies in performance (Grice 1969; Sperber and Wilson 1986). Primate vocal signals prompt reflex responses; in speech, computational processes mediate between signal and message (Deacon 1997).

