LAPP RACIAL CLASSIFICATIONS AS SCIENTIFIC MYTHS

by

ROBERT T. ANDERSON

INTRODUCTION1

Since Blumenbach first presented his five-fold classification of the varieties of man in 1781, scores of theorists have applied themselves to the problem of arranging human physical varieties into an orderly typology. Of the many classifications devised, all have found their nemesis in certain peoples who defy placement, such as the Polynesians, the Australians, the Veddas, the Pigmies, and the Lapps. These problem types have been dealt with in various ways. Kroeber, for example, followed the safe course of simply putting them into doubtful categories, and Hooten did not even mention the Lapps in *Up From the Ape* (1946). In general, however, racial theorists have faced up to the problem and have applied their metrical and logical methods to its solution. Because of their amenability to speculation, and because so much attention has been paid to them, these racial types present interesting cases of the role of distortive subjectivity in the process of scientific inquiry. The following pages will be concerned with the Lapps as an illustrative example of persistent inaccuracies and misinterpretations that attained the level of scientific myths.

It is not the intent of this paper to present a comprehensive history of the racial classification of the Lapps, though the main trends of such a history will be evident. Recent genetic studies are completely beyond its scope. We have been content, rather, to show simply that non-objective factors have played their part, and that the part played has been disconcertingly influential. To this end, attention focuses upon the history of the two most influential interpretations of Lapp race biology. The first one has now been abandoned. It held that the Lapps were relatives of the Finns and that both were originally Asiatics or Mongoloids. The second holds that the Lapps represent a remnant of an ur-race that was the ancestor of both modern Mongoloids and modern Caucasoids.

AN ABANDONED INTERPRETATION

Writing in 1673, Johan Scheffer attributed the following characteristics to the Lapps: low stature, tawny (swarthy) complexion, extremely lean, thick heads and prominent foreheads, hollow and blare eyed, short, flat noses, wide mouths, flat faced, meagre cheeks, long chin, short, thin, straight, black hair, thin and short beard, very strong and active, stooped walk, superstitious, timerous and cowardly, and unfit for soldiery.

Concerning their racial status he wrote, "It is certain they don't deduce their Origine from the *Swedes*, there being no greater difference betwixt any thing on Earth ..." (Scheffer, 1701, 37). He also noted that they differ as much from the Russians or Muscovites, and the Norwegians have the same origin as the Swedes.

At that time there was a certain district in Finland called *Lappio* and therefore Wexovious concluded that the Lapps were descended from the Finns. "What Wexovious would infer here from the District called *Lappio*, as if the Laplanders had from thence got their Name, is a bare Surmise, founded upon very slender Reasons. . . . But what he says in general of their being descended from the *Finlanders*, is more than probable . . ." (Scheffer, 1701, 38). The reasons for maintaining that the Lapps are descended from the Finlanders are:

- 1. Both nations retain to this time the same name. Sapme or Same means Lapp in Lappish and Suomi means Finn in Finnish.
- 2. Both peoples have an ancient tradition that Jumi was the founder of their nations.
- 3. Their languages have a great affinity.
- 4. Their bodies and habits are also very much the same. Both have the same well set limbs, black hair, broad faces, stern countenances, laziness, superstitions, sorcery, temper, and clothes.
- 5. Such authorities as Conring and Wexovious confirm this relationship.

Since the ancient *Finlanders* came so near to the modern *Laplanders*, in every respect, they are questionless descended from the same stock.... What small difference there is observed betwixt them, must be ascribed to their different diet and climate (Scheffer, 1701, 41, 39).

Impressed with the effects of a harsh environment, Scheffer wrote, concerning stature,

Vostius alledges, as a reason for their lowness of stature, the violence of the cold, and that with a great deal of probability: For considering that the natural Heat is in a continual conflict with the violent cold, and is forced to exert all its activity to combat that enemy, and it is not sufficient to give due aid to the Excretion and Alimentation, which renders their bodies both lean and short: Tho' in my opinion, their food, which contains little fit for nourishment, may also contribute in a great measure to it . . . (Scheffer, 1701, 24-5).

Concerning skin color,

What wonder is it, if those, who from their infancy are exposed to the smoak, should be of a tawny complexion? (Scheffer, 1701, 25). Concerning their posture,

They seldom or never walk upright, but stoop continually, which is

attributed to their sitting on the Ground in their low cottages (Scheffer, 1701, 27).

Concerning faintheartedness,

The reason that they are thus fainthearted is, that the excessive cold and miserable dyet renders their blood destitute of a sufficient quantity of spirits (Scheffer, 1701, 28).

Finally, Scheffer followed Conring in the opinion that the Laplanders, Finlanders, and Samoyeds are all of the same race and have "come out of *Asia* into the northern parts of Europe (Scheffer, 1701, 38).

In the second edition of his famous dissertation, printed in 1781, J. F. Blumenbach presented for the first time his division of mankind into five varieties. Of these he wrote that the first variety is the largest and primeval one,

[it] embraces the whole of Europe, including the Lapps, whom I cannot in any way separate from the rest of the Europeans, when their appearance and their language bear such testimony to their Finnish origin ... (Blumenbach, 1865, 99).

In the third edition, however, printed in 1795, he had a different opinion. "The Caucasian variety includes the inhabitants of Europe—except the Lapps and the remaining descendants of the Finns (Blumenbach, 1865, 265). Furthermore, the Mongolian variety comprehends the Finnish populations of the cold part of Europe, including the Lapps (Blumenbach, 1865, 265-6).

The reason for this change is not mentioned. Scheffer is not cited and the theory is not espoused by any of the authors referred to. Probably he changed his mind as a result of reconsidering the data—possibly because he came into the possession of some additional skulls. In a publication of 1808 he noted the resemblances between Lapp and Mongolian crania. Concerning primary characters:

the skull large in proportion to the stature of the body; the form and appearance altogether such as prevail in the Mongolian Variety; the shape almost spherical or globose; the zygomatic bones extending outwards; the malar fossa, plane; the forehead broad; the chin rather prominent and acuminated (Prichard, 1841, Vol. III, 301).

Like Scheffer, Blumenbach was also impressed by the influence of environment.

We see nations which are reputed to be but colonies of one and the same stock have contracted in different climates different racial faces. Thus the Hungarians are considered to be the same primitive stock as the Lapps. The latter living in the furthest North have acquired the face so peculiar to the most northern nations; whereas the former living in the temperate zone, in the neighbour-

hood of Greece and Turkey, have gained a more elegant form of face (Blumenbach, 1865, 231).

Writing in 1822 Sir William Lawrence attributed certain characteristics to the Mongolian Variety, all but one of which were cranial. These were: forehead low and slanting; head square in form; lateral projection of malars; glabella and ossa nasi flat and small and on the same plane as the malar bones; scarcely any superciliary ridges; narrow nasal entrance; malar fossa forms but a slight excavation; alveolar edge of jaws obtusely arched in front; chin rather prominent; and short stature (Lawrence, 1822, 305).

Lawrence found that the characters of the Mongolian Variety "are strongly expressed in the skull of a Lapland female, and prove unequivocally that this race belongs to the Mongolian Variety" (Lawrence, 1822, 309). In another place he noted that the "Caucasian Variety includes all the ancient and modern Europeans, except the Laplanders and the rest of the Finnish race . . ." (Lawrence, 1822, 477). The latter statement contains the sole reference to the Finns, but it is sufficient to show that Lawrence was following earlier writers in his classification of the Finns, Lapps, and Mongols. Indeed, his debt to Blumenbach is not only expressed in his eloquent dedication, but his evaluation of the Lapp skull is footnoted to Blumenbach and his terminology—even his phraseology—attest the magnitude of this influence.

But, though he was prone to borrow, he was also capable of dissent. In discussing environmental causation he contended that neither climate nor the state of society can be given as affecting the "conformation and color of the body," since most modern European nations were barbarians until relatively recently, yet they have not changed physically (Lawrence, 1822, 453-5).

Instead, therefore, of accounting fore the dark colour, peculiar features, and stature of the Greenlander, Laplander, and Samoides, from their smoke, the dirt, their food, or the coldness of the climate, we ... ascribe it to their descent from a race marked by the same characters as distinguish themselves. These tribes owe their origin to the Mongols: and retain in the north those marks of their descent found in the Chinese (Lawrence, 1822, 455).

This quotation not only illustrates his repudiation of environmentalism, but it also indicates contact with Scheffer, for his wording is obviously lifted largely from the English translation of *Lapponia*. Incidentally, it is curious to note that his description of the jaw as prominent is similar to observations on the Lapp jaw made by both Blumenbach and Scheffer, and contrasts with the modern observation that it is extremely shallow.

J. C. Prichard, in 1836, noted that "travelors have been struck by the different aspects of the Finns and the Lapps, and they have accounted for the phenomena in different ways. Some refuse to admit evidence of their consanguinity, though such evidence has been found sufficient to satisfy unprejudiced persons (Prichard, 1841, Vol. III, 297). In order to demonstrate this point he quoted at length from Scheffer and concluded in Scheffer's words: "their bodies and habits are very nearly the same . . ." (Prichard, 1841, Vol. III, 298).

But, though he clearly regards the Finns and the Lapps to be closely related, his view of their Mongoloid affinities is confused. For while he regards the Finns as having European features and complexion, many being handsome according to our ideas of beauty, he describes the Lapps as deviating from the usual characters of the European races and approximating to the Mongolian. Still, after quoting Blumenbach, he wrote, "that great physiologist was right in referring the Lapponic skull to the Mongolian type. We must admit that great diversity appears to have taken place in these two branches of one national stock" (Prichard, 1841, Vol. III, 308). It would appear, then, that he regards the Finns and the Lapps to have an Asiatic ancestry. He continues,

These observations and facts that tend to identify the Finns and the Lapps or to prove that they are originated from the same stock, are rendered the more interesting by the consideration that the physical diversity frequently, but not unusually, existing among them is very strongly marked" (Prichard, 1841, Vol. III, 300).

Furthermore, while admitting that the cause is difficult to discover, he feels that it is impossible to account for these diversities by reference to the hypothesis of intermixture with foreign nations. Neither can they be explained entirely as due to differences of climate or race (whatever he means by this!). He concludes,

It lies in the difference of external circumstances and agencies, which depends not on local but on moral conditions. The Finns are well fed and warmly clothed and sheltered from the inclemency of the winter cold, of which they further lessen the effect on their constitution by the frequent use of hot baths" (Prichard, 1841, Vol. III, 341).

The Laplander, on the other hand, never keeps himself in a degree of temperature sufficient for the full development of physical life.

Prichard has obviously leaned heavily on Scheffer and Blumenbach for he quoted from both of them in extenso. His results differ only to the extent of reinterpreting the mechanism of environmental causation. Although the conception of moral conditions as opposed to local conditions is attributed to Von Buch, one cannot help wondering if concern with this problem did not find its stimulus in the dissention of William Lawrence.

In 1859 Theodor Waitz stated that the Finns have short conical crania with flat temples and a globular occiput. The Lapps differ in that their skulls are smaller and thinner (Waitz, 1863, 76).

The Lapps and the Finns are held to be members of the same race. This conclusion is apparently based mainly on linguistic evidence. Indeed, language was considered important enough to permit the statement that, "We do not consider that the linguist is justified in conceding so much in this respect to the anatomist and zoologist as Pott has done, who assumes that intermixture has produced an essential change in physical formation along the Magyars, Osmanlis, Finns, and Samojeds, while they have preserved their language—that 'an exchange of body' with foreign tribes has taken place without an exchange of soul . . ." (Waitz, 1863, 76-7).

Waitz contended, "One is certainly inclined to doubt the theory of the absolute permanence of types, and to adopt rather an extensive change in the form of the crania by climate and intellectual pursuits" (Waitz, 1863, 76). The Finns were formerly free owners of the soil and their monuments and their poetry testify of a high culture in past times. The Lapps, on the other hand, have always been, and still are, "miserable nomads." "Might not the physical differences be considered as having gradually arisen?" According to Waitz, many consider shape of cranium an infallible criterion of race, yet experts admit that the individual differences in form of the cranium become greater in proportion to the higher intellectual development of a nation. He therefore concluded that the pretended constancy of physical type as a criterion of affinity of race results in absurdities (Waitz, 1863, 77, 226).

Waitz considered the Finns, the Lapps, and the Samoyeds members of the same race. He apparently also believed that they were related to the Mongolians for he held that large groups of Samoyed in the south indicates their origin from Central Asia (Waitz, 1863, 199).

According to Anders Retzius (1860) there are two great racial groups, (1) the Dolichocephalae, and (2) the Brachycephalae, which are subdivided into (a) the Orthognathous, and (b) the Prognathae (Retzius, 1860, 251).

Among the Brachycephalae-Orthognathic of Europe are the Ougriens and the Turks. The former include the Samoyeds, Laplanders, and Finns. Among the Brachycephalae-Orthognathic of Asia are the Ugrians and the Turks again (the difference in spelling has no apparent significance). The former includes specifically the Samoyeds and the Yakouts (Retzius, 1860, 257).

In this highly schematized outline based simply on a comparison of cephalic index and facial projection the old idea that the Lapps, Finns, and Asiatics are related is presented once again.

In 1886 A. H. Keane wrote twenty-two pages about the Lapps under the title, "The Lapps: Their Origin, Ethnical Affinities, Physical and Mental Characteristics, Usages, Present Status, and Future Prospects." From this article we learn,

notwithstanding many discrepancies due partly to long isolation in different surrounds, partly to intermixture, the Lapps would appear to be an offshoot of the great Finno-Tataric (Uralo-Altaic) family. . . . To this widespread division of the Asiatic would they still belong in speech and in some prominent physical characteristics (Keane, 1886, 217-8).

The Lappish language is a near relation to Finnish, which is closely allied to the Turki and other members of the Mongolo-Tatar group (Keane, 1886, 218). In fact, the name *Finn* indicates the connection of the Lapps with the Finnish family, of which they are evidentally an outlying branch, and it is moreover the Teutonic translation of the national name *Same*, e.g., literally, Fen Man (Keane, 1886, 215).

There is, however, more than purely linguistic evidence for the oriental extraction of the Lapps. In their national legends dim traditions still linger of their Eastern origin and their name connects them with Finland as the last stage in their long wanderings from the Altai and Baikal regions.

In their myths and folklore occur descriptions which can refer only to the Altai highlands, and Lake Baikal itself seems to be here indicated as a sort of point of dispersion for the Lapp race . . . (Keane, 1886, 217).

Physically, Keane felt that the Lapps are fundamentally, and in some respects even typically, Mongolic. They are not only brachycephalic, they are hyperbrachycephalic, they are not only short, they are extremely short. Yet, their hair is brown when it should be black; their complexion is florid when it should be yellowish; their eyes are brown when they should be black; and their nose is straight and regular when it should be short and concave (Keane, 1886, 219). These peculiarities are difficult to account for. They could be due to natural evolution of type gradually brought about during long seclusion in a changed environment. On the other hand, "we are warned by Linné not to attach too much weight to the element of color, which, amongst other races also is far from constant, and which appears to be peculiarly susceptible to climatic and dietary influences (Keane, 1886, 219). Other influences besides change of scene must have been at work, however, and the most important of these would have been intermingling of races (Keane, 1886, 220).

Keane has undoubtedly been both directly and indirectly influenced by the grand old man of Lappology, Scheffer. This is evident not only from some of the data used, especially the linguistic arguments, but also in his description of the Lapps as strong, of robust constitution, with good muscular development, but bandy-legged and ungainly walkers (Keane, 1886, 220).

The Races of Man written by J. Deniker in 1889 was based on the principle that race requires only a consideration of physical characters (Deniker, 1901, 280 f.). Under Group F., Straight Hair the following peoples were included (Deniker, 1901, 286).

peoples were included	(Dellikel, 1901, 200).		
warm yellow skin		N. American	22
		C. American	23
		Patagonian	24
brownish-yellow skin, etc.		Eskimo	25
yellowish white skin	a. turned-up nose, short	Lapp	26
	stature, brachyceph.		
	b. St. or concave nose, short,	Ugrian	27
•	meso- or dolicocephalic,		
	projecting cheek bones.		
	c. St. nose, med. stature,	Turko-tatar	28
	hyperbrachyceph.		
pale yellow skin, etc.		Mongol	29

In this outline the Lapps are obviously related to the Mongols, as are also the Ugrians. But what is included under the term Ugrian? For Retzius, as we have seen, it comprised Samoyeds, Laplanders, and Finns. To de Quatrefages, on the other hand, it meant Samoyed but NOT Finns. (Quatrefages, 1867, 513). A hint as to Deniker's interpretation is gained from a later article (1897) where he speaks of the Finno-Ugrians as Eastern Finnish (Deniker, 1897, 298). Apparently Deniker recognized more than one kind of Finn and did not connect the Lapps promiscuously with the Finns as a whole.

In 1899 William Z. Ripley wrote,

the Lapps . . . are among the broadest-headed of men. Their squat faces show it. In Stature they are among the shortest of the human species . . . Their hair and eyes are very dark brown, often black. Could any type of human beings be further removed from this than the Finns? (Ripley, 1899, 359). (The underlining is mine.)

If Deniker adumbrated the collapse of a time-worn theory it became a reality with Ripley. In the final moments of the 19th century the belief that the Finns and the Lapps were racially related was delivered a blow from which it never was to recover.

With Ripley and the turn of the century, then, the theory was abandoned that the Lapps were related to the Finns and represented a European extention of the Mongoloid race. If the preceding pages have given the impression that this was the only theory current until the 20th century then let that impression be corrected now. As early as 1772 F. Bernier classified man into four races: (a) white, (2) yellow, (3) black, and (4) Laplanders, thus recognizing the Lapps as a distinct race (Cf. Topinard, 1890, 199). In 1826 Lehrberg maintained that the Lapps and Finns were entirely different races, based chiefly on the argument that there were moral and physical diversities between them (Lehrberg, 1826). As early as 1850 Agassiz put the Lapps in a circum-polar race called hyperborean, (Cf. Nott and Gliddon, 1860, lxi) as did such later authors as Giuffrida-Ruggeri and de Lapouge, giving the group such respectible names as homo palaeoarcticus and homo hyperboreus (Manker, 1947, 39).

But, even though other theories existed, the fact still remains that in the 17th, 18th, and 19th centuries there was an interpretation of the racial history of the Lapps that was supported by most outstanding physical anthropologists. The interpretation postulated a relationship of Lapp, Finn, and Mongoloid that was in fact unproven. Evidence for this myth, as shown, included a variety of explanations by different authorities. Occasionally, investigators accepted a predecessor's version of the myth, but for contrary rather than simply different reasons. In all events, the theory survived this long period of time as a kind of tradition. Handed down from person to person and from generation to generation, it found its chief support in the prestige and stability that comes from association with great names and respectable age.

A MODERN INTERPRETATION

The theory of Lapp racial origins that became a 20th century tradition was first presented by C. H. Stratz in 1904. According to Stratz, the Lapps represent the last remains of a particular branch of a white-yellow ur-race. The Lapps are characterized by the presence of "individual protomorphic symptoms," e.g., long arms and short legs, a decided accentuation of the torus frontalis, and a decidedly high but wide nose (Kajava, 1927, 41). These "individual protomorphic symptoms," together with the lack of the "outstandingly individual, one-sidedly progressive characteristics" of the yellow and white races indicate the possibility that the Lapps represent a "protomorphic remnant" of the "weissgelben Urstamm" (Cf. Kajava, 1927, 41).

The investigations of Lassila published in 1921 were taken to support this view, since he demonstrated additional primitive characteristics of the skull (especially on the orbits) and the teeth (Cf. Manker, 1947, 40).

Writing in 1927 the Finnish scientist Yrjö Kajava found that his researches also supported this hypothesis, since he too noted certain "protomorphic peculiarities," such as the proportions of the trunk and the extremities, the low cranial capacity, the width of the nose, and the narrowness (Begrenzung) of the Fissura orbitalis inferior (Kajava, 1927, 41).

A moment's reflection is sufficient to indicate that the evidence used by Stratz, Lassila, and Kajava is so inconclusive that it renders any historical deductions absurd. Even if we were to grant the tenuous proposition that relatively short legs are a primitive survival, it is difficult to agree that the cranial capacity of the Lapps (1398.9 cc.) compared to the aver-

age European figure (1450 cc.) is small, especially in view of their short stature, which these writers do not suggest is a primitive characteristic. Indeed, Kajava's figures show the average female Lapp to have a cranial capacity of 1300.87 as compared to an average female European capacity of 1300 (Kajava, 1927, 41). Neither can the width of the nose be taken as primitive, especially since it is, according to Stratz, combined with a decidedly high bridge, which must be regarded as a progressive trait. Indeed, of the three or four primitive characteristics cited by Stratz and Kajava, the nose is more than an unreasonable inclusion, it is detrimental to the whole hypothesis, for the nose of the Lapps, having considerable height, approaches the Caucasian, ergo progressive, type more closely than the extremely low, wide Mongoloid type. How then can it be held that the Lapps represent a remnant of the ur-race that developed into both the yellow and the white races! Surely not on the indefensable grounds that they lack the "individually outstanding, one-sidedly progressive characteristics" that are found in the Mongoloid and Caucasian races. Nor, again, because of the retention of dubious primitive characteristics. Yet, in the final analysis, this hypothesis rests precisely on the assumption, supposedly proven, that the Lapps are both primitive and unspecialized. Because they are primitive they represent a survival (protomorph) of an older racial type, and because they are simple, they represent the racial type from which the more specialized Mongoloids and Caucasoids developed. As we have seen, the evidence for simplicity and primitivity do not hold up even on the basis of their own data. Furthermore, even if they were primitive, Kajava's environmental deductions would suggest that it is the result of degeneration rather than survival. And even if they were simple, why should they represent the ur-race from which the white and the vellow races both developed?

The ur-race theory was the result of unwarranted interpretations of physical characteristics and unreasonable deductions on the basis of these unwarranted interpretations. Yet the tradition survived.

H. Bryn, a Norwegian, writing between 1920 and 1934, noted in a southern province of Norway (Møre) a population characterized by short stature. He felt that this group was so distinct from the typical Nordic type that it must originally have had approximately the same racial features as the Lapps, including marked brachycephaly, originally black hair and brown eyes. He found this element especially in the southern part of the province (Søndmøre) where the absence of mountain passes had hindered Nordic infiltration (Wiklund, 1947, 5-6). In a later report (1933-4) he referred to this group as "the dark, brachycephalic, high-headed type, which has its radial center in Sunnfjord" (5 or 6 miles south of Søndmøre) (Wiklund, 1947, 6). He noted again its geographical isolation and held that it belonged to the area of expansion of Fosna culture.

Bryn is of the opinion that this type, as well as the brachycephalic population of Jaeren (south of Stavanger in southern Norway), points towards the Alps in Central Europe. The high headedness of the Sunnfjord and Søndmøre population is due, in his opinion, to a later crossing of the Alpine type with the Nordic high-headed Trønder-type (Wiklund, 1947, 6).

He denied the existence of any Mongoloid characteristics in the Lapps and held that the contention of Stratz that the Lapps were a Mongoloid protomorph was "a completely untenable theory" (Schreiner, 1935, 286-7). This would appear, then, to be only a partial acceptance of the Stratz-Kajava hypothesis. Actually, he believed that the Lapps must have had their origin far back in antiquity, before the formation of the Central Asiatic differentiation. Bryn's theory, then, is only a modification necessitated by his belief that Mongoloid characters do not occur among the Lapps. Stated succinctly, he considered the Lapps to be a derivative of an ancient Alpine race that broke away before the differentiation of the Central Asiatic type.

J. Czekanowski, writing at about the same time as Bryn, presented the thesis that there were four basic white races and six sub-races or mixed types (Wiklund, 1947, 15-6). These four races were the Lapponoid, Nordic, Ibero-Insular, and Armenoid. Defining Lapponoid in such a way as to include the Alpine and the Lapp proper, Czekanowski's conclusions agree substantially with Bryn.

Von Eickstedt, following the lead of Bryn and Czekanowski, also identifies the Lapps with an old European racial type. According to von Eickstedt, an extra-primitive proto-Alpine type went to Denmark to associate itself with the Maglemose culture. Later, under pressure from the advancing Nordics, these brachycephals were forced back until they were allowed to rest at the termini of the two Nordic routes of invasion (Coon, 1939, 287). These peoples, called proto-Alpines, are regarded as pure descendents of the early racial type of the Alps, "and not as an alpinoid, short-headed varient in the north" (Cf. Schreiner, 1935, 278).

Now, it is clear that Bryn, Czekanowski, and von Eickstedt have only partially accepted the hypothesis of Stratz, Lassila, and Kajava. Insofar as the most tenuous contention of the earlier writers was the assumption that early Mongoloids and early Lapps stemmed from a common race, it would appear that the later writers have accepted only the more reasonable premises. Such, however, is not the case, for, while they all agree in joining the Lapps and the Alpines, the premises on which this is based are completely different. As we have noted above, the earlier writers based their conclusions on an assumed primitiveness and simplicity in the Lapp physical type. The later writers, on the other hand, ignore this completely, and ground their deductions on a comparison of gross physical features as well as geographical and historical observations. It is indeed striking

that this interpretation has had the same history as theories of preceding centuries: originally based on falacious data and reasoning, it has survived, through a process of reexamination and the support of different evidence and arguments. The belief that the proto-Mongoloids and proto-Lapps were related was dismissed by Bryn on the grounds that no Asiatic traits are observable in the Lapps, and by von Eickstedt on the grounds that such traits exist but are the result of later influences. The tradition, however, did not succumb. It was resurrected *in toto* by K. E. Schreiner in 1935.

Working with skeletal material, Schreiner observed that, "by combination and accentation of several of these characteristics the Lapps, especially the women and children, can present a very singular Mongolian-like appearance..." (Schreiner, 1935, 277). On the other hand, there are many individuals among the Lapps who are not markedly Mongolian in appearance, but resemble certain elements in the southern part of Norway. "These types belong to a round-headed population of dark complexion which, with Ripley, we are accustomed to regard as a branch of the Central European or Alpine race" (Schreiner, 1935, 277). Still others look like an Alpine-Nordic mixture; but this is obviously due to recent intermarriage.

Schreiner noted, from a comparison of the cranial characteristics of the Mongolians, Alpines, and Lapps, that in a large number of features, the Lapp skulls take a medium position between the other two, although there are also Lapp characters which are closer to either the one or the other and there are even some that typify the Lapps alone. His conclusion is, "... that the proto-Lapps, proto-Alpines, and proto-Mongolians, just as Stratz conjectured, represent differentiations of a common Ur-race..." (Schreiner, 1935, 287). While the proto-Alpines pressed to the west and the proto-Mongolians pressed to the east, the proto-Lapps moved into the area of the Urals, where they developed their specializations in isolation, before migrating to the Scandinavian peninsula (Schreiner, 1935, 287).

Although admittedly supporting the Stratz hypothesis completely, it should be noted that Schreiner found certain specializations in Lapp osteology which would render the Stratz argument nugatory. In basing the proto-Lapp, proto-Alpine connection instead mainly on an assumed connection between the Lapps and the southern Norwegian brachycephals, and hence the Alpines, he is clearly following Bryn, Czekanowski, and von Eickstedt in detail. He took issue with these men on the other half of the Stratz hypothesis. He demonstrated from his craniological research that Bryn's denial of the existence of Mongoloid characteristics in the Lapp racial type was incorrect. Von Eickstedt's contention that these Asiatic traits were due to recent admixture was countered mainly by the argument that the Lapps, who are in many ways less specialized than the

Mongoloids, take up a position craniologically between the Mongolians and the Alpines.

C. S. Coon (1939) presented his analysis with considerable detail and specificity; yet, from what we have seen of the tenacity of racial interpretations, it is hardly surprising that he ends up essentially with the Stratz hypothesis:

Lappish: A stunted, highly brachycephalized, largely brunet relative of the Ladogan, originally living to the east of the Ladogan type area, in the Urals and Western Siberia. Has probably assimilated some evolved Mongoloid, but owes its partly Mongoloid appearance more to the retention of an early intermediate evolutionary condition. In modern times much mixed with Ladogan and Nordic (Coon, 1939, 292).

Schreiner's position reappears in Coon's terminology. Thus, the original ancestral Lapps are accepted as representing a stage in the evolution of both the Upper Palaeolithic Europeans and the Mongoloids, and that while the Mongoloids have specialized in their own characteristic way, and while the Ice-Age European strain was modified by mixture with and virtual absorbtion by the encroaching post-Pleistocene food producers, the ancestral Lapps were modified largely by a general size reduction and an increasing infantilism (Coon, 1939, 305).

Concerning the more recent racial history of the Lapps, Coon referred to the effect of an hypothesized process of brachycephalization, and to "Some environmental mechanism working upon the mineral economy of this peripheral human group [which] has probably produced this size reduction and infantilism" (Coon, 1939, 305). It is interesting to note that in spite of its sophisticated phraseology and the fact that it may yet be proven correct, the latter is precisely the explanation of short stature used by many of the earlier writers discussed above, including Blumenbach in the 18th century and Scheffer in the 17th. Even when Scheffer applied this environmental argument it was blessed with authority, for he quoted Vostius and Paulus Jovius.

From anthropometrical data Coon concluded that peculiar specializations, including characteristics of the jaw and the bony orbit, indicate a divergence of the Lapps from the Upper Palaeolithic Whites and the Mongoloids as early as the Laufen glacial retreat (Coon, 1939, 305). The lack of specialization in a Mongoloid direction, evidenced by the soft and often fine head hair, the absence of the blue-black hair pigment shade, the infrequency of the Mongoloid eyefold, and the absence of an excessive lateral malar development or great facial width, indicate that the Mongoloid characters of the Lapps could not have resulted from recent crossings.

In 1947 K. B. Wiklund's *Lapperne* was published posthumously. According to this outstanding Swedish Lappologist, "the numerous primitive characteristics of the Lapps possibly find their explanation in that they represent a protomorph—a remnant preserved to this day of the root from which the white and the yellow races had their origin" (Wiklund, 1947, 4).

Wiklund's debt to Stratz is obvious, for he not only has a footnote reference to *Naturgeschichte des Menschen*, but for the first time since Kajava in 1925 the old argument based on primitive characteristics is used.

Following Bryn and Schreiner, Wiklund holds that the Lapps are related to the Søndmøre brachycephals of the south Norwegian coast and thus ultimately to the central European Alpines (Wiklund, 1947, 5-6).

Following Schreiner he believes that the specializations of the Lapps must have required a long separation from the ur-race. "The peculiar anthropological type of the Lapps must have developed within an isolated area that was a strong barrior to contact with other peoples" (Wiklund, 1947, 6). He considers it a possibility that the Stone Age cultures of Møre and Sunnfjord, where there are present day peoples strongly reminiscent of the Lapps, are related to Fosna and perhaps to Komsa, which he believes dates from the last interglacial. Thus, while he agrees with Coon that certain peculiarities of Lapp physical type necessitate the assumption of the lapse of a long period of time since their connection with the Alpines and Mongoloids, he regards Komsa as possible evidence of their isolation in northern Fennoscandia, while Coon ignores Komsa and believes them only recently pushed into the Arctic and hence, by his reasoning, a branch of the ur-race rather than local shrunken-palaeolithic-survivors.

CONCLUSION

In the preceding pages we have examined the two most prominent theories concerning the racial status of the Lapps in order to ascertain the extent to which subjective factors entered into interpretive analysis. It was demonstrated that the earlier theory was accepted by a considerable number of men during the course of three centuries, just as the later theory had had wide currency since the beginning of the 20th century. Since it was also clearly shown in both cases that different men attained the same theoretical results for completely different reasons—the reasons of predecessors often being ignored, denied, or contradicted—the conclusion is inescapable that subjective influences have been highly effective—even to the extent of overshadowing the influence of anthropometrical and logical analysis.

By the same token however, one of the main findings of this study is reassuring, for it appears that hardly any theorist (most of whom, it must be remembered, were dealing with the Lapps only incidentally to much more comprehensive problems) accepted uncritically the conclusions of their predecessors in the way that the results of investigators are accepted categorically by the lay public. On the contrary, each one, though arriving at the same conclusion, did so as a rule on the basis of a restatement of the evidence, and even on the basis of completely different evidence.

This is reassuring, because notable progress is apparent in the acquisition and utilization of evidence. Thus, one of the main sources of error in older works was the confusion of cultural and physical phenomena. The earlier reliance on language for the determination of racial affinities is a classic example of this confusion, and the avoidance of this source of error by later racial biologists must be recognized as an important step forward. Another significant improvement in evidence is based on the improvement of descriptive techniques which has resulted in more reliable information and improved grounds for comparison.

Yet, although improvements in evidence are notable, they did not develop as fast as might have been hoped. Thus, seventeen years after the development by Retzius of the cephalic index, Waitz described the Lapp skull on the basis of unguided observation, and in the 1930's, although the cephalic index as a descriptive technique had been joined by additional measures, such as the height-length index, one might even then have wondered if in describing Lapp, Søndmøre, Alpine, and Mongoloid crania as brachycephalic one was actually dealing with truly comparable characters, or whether these are basically different kinds of brachycephaly; for it was clear then that the cephalic index is a gross descriptive device that ignores such important factors as the relation of the brain itself to the supraorbital ridges and the thickness of the occipital and parietal bones. Perhaps conscious effort to objectivity could reduce such lag.

This study of Lapp racial classifications, however, is not to be taken as an indictment of scientific procedure. Today, as physical anthropology has entered a new phase, gene pools and population dynamics are replacing races as foci of study. But these modern developments derived from dissatisfaction with older concepts, and thus owe their existence to them. Old theories—whether based upon intuition, common sense, authority, or inadequate research concepts and techniques-undoubtedly had to be explored before new ones could be developed. In this sense, scientific myths were useful. Usually, in fact, they were also recognized for what they were: tentative hypotheses. When they were not so recognized, they lulled theory-builders into wasteful speculation or diversion to other problems. A far more serious consequence threatens the unwary, however. In the search for guides to action, current tentative hypotheses may be utilized, especially by non-specialists, as bases for pragmatic decision. In this day when scientists are entering precipitiously into world council chambers, the history of Lapp racial classification reminds us anew that

even venerable conclusions or the opinions of experts may be no more than scientific myths, perhaps useful in the development of ideas, but irresponsible bases for policy or administration.

Notes

¹I should like to express my appreciation to Professor T. D. McCown for earlier guidance in the physical anthropology of Lapland. Any shortcomings of the present paper, of course, are completely my own responsibility.

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Mills College Oakland, California