

These figures include the women, invalids, and children removed from crowded cities and other danger zones in

England and France, and the refugees who have fled from the havoc of war to regions temporarily offering safety.

Science News Letter, June 1, 1940

MILITARY SCIENCE

Air-Plus-Troops Tactics Operate in Limited Depth

Germans Have Conducted No Long-Distance Raids; Have Made Succession of Short Hops of 150 Miles

DESPITE their horror at its ruthlessness, aviation experts, in commenting among themselves on Germany's blitzkrieg strategy, agreed that Nazi use of air power would necessitate rewriting of the world's military textbooks.

German operations in Poland and Norway, and in the Low Countries, differ widely from imaginative pre-war conceptions of air attack, though they are hardly less horrible. The story-book versions never took account of the limitations of aircraft or of the nature of war. The Nazis do in flawless manner. Thereby hangs a tale of crucial importance as Uncle Sam prepares to look to his defenses, to the tune of a probable billion dollars or two over the vast sums already spent and being spent on the Army, Navy and Air Corps.

Not once has Germany attempted seriously-intended long-distance raids. The Nazi high command has never essayed use of its planes for long-distance striking purposes. The few long-distance bomb-dropping flights over England carried out so far have been aimed at encouraging the British to keep an abnormally large number of defending fighters at home—plus such incidental purposes as mine-laying and reconnaissance. In a sense the British have been taken in by German propaganda about the long-range striking power of aircraft, when

in fact no such real menace existed until the Nazis overran Norway and Holland. The Germans, however, never made the mistake of taking their own word for it.

On the contrary, they have used aircraft systematically against nearby objectives, not more than 150 miles away from their bases. The German progression has been a series of short hops. Having occupied the first set of bases, they used them to get the second set, and so on.

There are two reasons for this, both connected with the inherent limitations of air power in 1940. First, an objective must be attacked repeatedly—every few minutes—until its destruction has been assured and the ground is too hot for the defenders to hold. Second, aircraft themselves cannot occupy ground, which is the necessary objective of war. (This is

true despite the usefulness of transport-landed soldiers and parachute troops in causing confusion in enemy ranks.)

The first, repeated attack, can be achieved only with difficulty at distances of 500 miles. Because of the time each plane requires to make the round trip, too many planes are needed. The second, occupation with infantry, can of course be expected only in the zone immediately in advance of ground troops. Therefore the devastating short-range Nazi air attack.

Germany's bombers are being used more like long-range artillery than like the long-range striking weapon of legend. All this requires extremely close coordination of aircraft, artillery, mechanized forces and infantry, which the Allies so far have not achieved. This may not look startling on paper, but it is to the man fighting against it. It increases by a few score miles the depth of the area subject to the destructive barrages of World War I type. Troops often have to (and did, during the last war) retire temporarily under such a barrage. They have now farther to go in returning to the front to meet the inevitable following infantry and mechanized column attack.

This means, among other things, that air attacks on New York are still a long way off. They will be for years to come. But, at the same time, for those contemplating eventual American entrance into the war, talk of bombing Europe with giant craft is nonsense, too.

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PSYCHOLOGY

Story of "Baboon Boy" Now Thrown in Doubt

WHAT appeared to be an authentic case of a human baby raised by baboons, one of the strangest stories in science annals, is now called in doubt

by continued scientific study of the case.

Last January the *American Journal of Psychology* carried a scientific report from Prof. John P. Foley, Jr., of George Washington University, quoting data obtained by the noted South African anatomist, Dr. Raymond A. Dart, giving credence to the story of a 48-year-old man in South Africa who, when about 13, was supposed to have been rescued from baboons by police. (*SNL*, April 6)

Like Kipling's Mowgli, suckled by wolves, the man known by the single name of Lucas, was supposed to have been a child of the wild, a "baboon boy" who spent his childhood in the company of animals, not human beings.

Prof. Foley now reports that more digging into the history of the "baboon

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boy" throws doubt on his life among the baboons.

A blow on his head, which Lucas said was an ostrich kick, may have been an ordinary skull fracture. Such an injury might have caused his unusual behavior, supposed to have been a result of an unusual childhood among the baboons.

A physician of Grahamstown, in South Africa, Dr. Dru Drury, dug into the strange case of Lucas, the baboon boy, now working on a farm. The facts just unearthed seem to be that the half-breed boy was admitted to Grahamstown Mental Hospital in 1904 suffering from an injury of the head. Diagnosis was "acute mania." His mother and father were un-

known. No mention of baboons or of the ostrich kick occurs in the hospital records.

The police story, hearsay evidence now because the officer who is supposed to have made the rescue is now dead, placed the finding of Lucas among the baboons at Burghersdorp, too many miles from Grahamstown to make it plausible that he would have been hospitalized there.

Prof. Foley concludes that the baboon boy of South Africa must be listed among the unconfirmed stories of "animal children," rather than as an authentic case of a human child living among animals.

Details will be published in the *American Journal of Psychology* (May).

Science News Letter, June 1, 1940

GENERAL SCIENCE

Not Science, But Philosophy And Religion Failed World

Scientists Should Explain Bearing of Discoveries On Social Problems and Encourage Scientific Methods

ANSWERING those critics who have blamed science for the horrors of modern warfare which threatens civilization, Dr. Harlow Shapley, director of the Harvard Observatory and internationally renowned scientist, declared that "it is philosophy and religion which have betrayed us, not the engineers."

Science, he declared, must turn its attention to two things, both of them of high social importance: "the public explanation of the bearing of our past and current discoveries on the problems of life and society, and the encouragement of the use of at least semi-scientific methods in the treatment of confused human problems in the hope of eventual emancipation from the slavery of slogans."

Dr. Shapley spoke on science in a symposium on "Our Expanding Horizons" before the annual meeting of the Associated Harvard Clubs in New York City. Other speakers discussed education, foreign affairs and industry.

After pointing briefly to recent research in various fields of science, Dr. Shapley said it would be possible to guess what lies ahead, "the future conquests of intellectual man's scientific curiosity—if indeed ahead there lies scientific curiosity or intellectual man, or anything but a trough in the rhythmic curve of civilization—anything but an

epoch of realism, marked by greed and inanity.

"But I do not venture to forecast detail," he continued, "partly because you are now thinking of submarines and bombers, blood and explosives—and perhaps you are unkindly saying, 'See what you scientists have done to civilization'."

This charge—"that science has outrun itself, that it has brought woe, and pain and confusion, more than happiness, comfort and order"—are made almost exclusively, he said, "by vain people whose failure to understand the simplest techniques have produced an inferiority and a defense.

"If you do believe that the present tragic world order should be charged to physicists, chemists and engineers, then I assume that you have not thought it through," he declared. "There is undoubtedly superficial justification for a hasty opinion of that sort; but is it not true that the tragic decay of the present comes not from the abuse of the sciences and their products, but more probably from the abuse of the ordinary rules of rational intercourse between rational human beings; the abuse of ethics and logic?"

"The perversion is of international morality and not of gadgetry. It is philosophy and religion that have betrayed us—not the engineers."

To the contention that the radio helps

the charlatan to reach his dupes, Dr. Shapley answered that the same radio "should help still more in releasing people from their natural dupehood."

Science, he emphasized, has "an important social job on the horizon, namely the intrusion of rationality and logical methodology into non-scientific fields. I do not know how to intrude successfully—perhaps by education, perhaps by example.

"A great contribution would result if we could depopularize slogans—those common opiates of thought. Mankind suffers from the pater of slogans, the catchphrase philosophies and other cheap substitutes for reasoning.

"Morality in physics and chemistry, I am intimating, is to some extent forced. The scientist is naturally as human in his irrationality as others. But survival requires a kind of honesty. The amoral experimenter poisons himself or blows himself up.

"If only a false economic doctrine, while still prenatal, would also electrocute its progenitor! Or an educational schism backfire during fabrication and reduce its advocate to impotent illiteracy and confusion!"

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