## **Germany in perspective**

SIR—The discussion following the remarks of Mr Nicholas Ridley on the supposed national characteristics of Germans (*Nature* **347**, 510; 1990) is partly amusing but mostly disturbing. I believe that scientists should be discussing these matters, and perhaps should have done so more readily in the past. May I put the views of a physician-scientist of the postwar generation of Germany?

Anybody now articulating ideas of "national or racial characteristics" has either never been exposed to a foreign culture and country for any length of time, or has consciously or otherwise incorporated some of the ideas of Nazi ideology into his or her thinking. It is the very simplicity of these ideas that makes them so attractive and dangerous.

Ridley is merely one of a large number of people worldwide who, almost undisputed, hold that Germans are belligerent people forever eager to dominate their neighbours and the rest of the world, so that a strong and unified Germany is a potential threat to peace and security. Despite the destruction and suffering inflicted upon other people by Germans in this century, a sober view of history does not justify this conclusion.

In the seventeenth and eighteenth centuries, what is now Germany was a permanent battlefield upon which outside powers fought over their conflicting interests. As a result, many Germans settled peacefully, usually by invitation, in the Balkans and in Russia, where they maintained their culture and identity and were respected for their skills and hard work.

Sovereigns of the German states meanwhile sought to maintain a delicate balance of power among themselves. The contrast between the Germans in the seventeenth and eighteenth centuries and the Portuguese, Spanish, British, Dutch and French, who subdued and exploited other peoples, countries and continents to build colonial empires, is striking.

So vulnerable and comparatively peaceful were the German states that, early in the nineteenth century, the French armies of Napoleon swept across central Europe and overran even allegedly "militaristic" but hopelessly inferior Prussia. Only such formidable superpowers as Russia, Great Britain and Habsburg-Austria rescued the German states. The efficacy of the French armies (a "national characteristic?") made a lasting impression on sovereigns across Europe; a reorganization and build-up of armies began, particularly in Prussia. It is not by chance that most of the military terms in German derive directly from the French.

After the failure of the liberal democratic revolution in 1848 and with the faltering of the federation of non-Prussian states (Deutscher Bund) under Austria's patrimony, Bismarck was able to unite the German states under the hegemony of Prussia. The wars fought to that end cost a tiny fraction of the lives and resources lost in the American Civil War; they also ended in honourable bilateral agreements and not in humiliation or annihilation of the adversary.

The new united Germany, under the guidance of prudent politicians, made central Europe a prosperous and remarkably stable region, so stable in fact that it also stabilized the neighbouring Russian and Austrian empires; both collapsed immediately with the fall of Germany and without it would probably have done so much sooner.

Whatever one may think of the follies of Kaiser Wilhelm II, his colonial adventures (who said "the Germans to the front!" anyway?) and his attempts at naval dominance which made Great Britain an ally of France, in 1914 Germany had no reason to go to war at all and was no more eager to do so than all the others involved, but found itself inextricably tied to the sinking ship of Habsburg-Austria by an intricate system of treaties and alliances.

In 1918, all the countries involved had suffered equally, but there was one important difference. While France and Britain imposed taxes to finance the war, thereby spreading the burden evenly, Germany's war effort was financed mainly by voluntary contributions as war-bonds; 1918 saw large segments of German society, especially the middle class, not only decimated by huge losses of men, but also deprived of their savings, humiliated and disappointed. Other sections of society had contributed very little and still others had made huge profits during the war.

A humiliated Germany in socioeconomic upheaval was not only a hotbed for the radical political movements that soon emerged but also an obvious threat to stability in Europe. The inability of our parents' generation, inside and outside Germany, to control Hitler and his followers and the consequences thereof is a fact of history but even there it is difficult to conclude that it was all due to "national characteristics". That, of the European dictators (who included Franco and Mussolini), Hitler and Stalin would finally engage in a deadly struggle reflects both the economic and geographical conditions of realpolitik in Europe as well as the innate characteristics of dictators and their relationship with each other.

The often-heard statement that the partition of Germany and the resulting cold war brought "peace and stability" to Europe can at best be called cynical. Apart from the suffering of people under Communist rule, the world was repeatedly

on the brink of nuclear war, the arms race brought two superpowers to their knees and the consequences, especially of nuclear armament, are only slowly becoming apparent.

If there is one traditional "value" that has got Germany and Germans into trouble, it may be our striving for perfection and overdoing things. I think we are learning that such extremism, while beneficial in science and industry, may well be harmful when applied to human affairs at any level.

The prospect for Europe today seems brighter than ever, but the formidable obstacles ahead will not be overcome nor the substantial problems solved by unearthing petrified prejudices and fossilized philosophies on "national or racial characteristics".

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## Wittgenstein

SIR-I cannot agree with Marshall's opinion (Nature 347, 435; 1990) that Wittgenstein was only "a minor Austrian aphorist". I presume that, as a scientist, Marshall appreciates only a "positive' thought that can quickly lead to an advance in knowledge. Wittgenstein's thought, however, seems to lead nowhere. The philosopher was well aware of this: "I am not interested in erecting a building, but in seeing clearly before me the foundations of all possible buildings. My aim is different from that of the scientists and the movement of my thought is also different." (Vermischte Bermerkungen, Suhrkamp 1972.)

This way of looking at the world decreases the immediate heuristic value of Wittgenstein's work but, in my opinion, it by no means detracts from his philosophical merits. Human culture is made not only of scientific advances but also of seemingly insoluble problems deeply rooted in the structure of our thought and language.

The great merit of Wittgenstein consisted in showing us that these problems exist and that we really do not know what we are talking about, although, of course, we have to go on talking. Such language problems are put aside by scientists (otherwise there would be no progress), but their disturbing presence emerges again and again in science as well as in ordinary life. Perhaps the only way of solving them would be to communicate only by means of a mathematical language, a rather impractical task, I fear.

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