

## CURRENT COMMENTS

### Le Nouveau Défi Américain. II.

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Last week we presented in this space the English translation of my article, "Is French Science Too Provincial?", published originally in French in *La Recherche*.<sup>1</sup>

Now that the English-speaking scientific community has had a chance to examine the article, I will present some of the comments and criticisms of it by French scientists.

As I was in the process of writing the article, I did consider that I might become persona non grata in certain Francophile circles. But I never imagined that a former Prime Minister of France, Michel Debré--not to mention quite a few other distinguished Frenchmen--would make me the symbol of a new American challenge.

In his response to my article, Mr. Debré, who was Prime Minister from 1959 to 1962 and who now serves as a member of the National Assembly, claims that the current preeminence of the English language will not be eternal. Since he is a politician himself, it is not surprising that Mr. Debré views the question of language in political terms. In a reply to my article published in a subsequent issue of *La Recherche*, he says,

It is not possible to separate the choice of scientific language from the political conceptualization one has of the future of one's own country....

It would be a national drama with tremendous consequences to take away from French its character as a scientific language. Let's state matters as they are. If French ceases to be a scientific language, the French culture will be dealt a severe blow with the subsequent loss of a set of spiritual and moral values which, along with political and economic interests, assure the existence and permanence of the French nation.<sup>2</sup>

It seems that Mr. Debré has been carried away with his own argument. Does he really think that encouraging French scientists to publish in English threatens the "existence and permanence of the French nation?" But it seems that he is indeed serious, as he goes on.

If we establish as a rule that the language of science is not in any case French, we willfully encourage an impoverishment in humanity which for a people is a detriment as serious as reduced birth rates, an impoverishment from which a people could not recover.<sup>2</sup>

As if the prospect of impoverishment is not gloomy enough, he warns of a nationalist revolt which could become, or rather will become, the natural attitude of young researchers if we follow Garfield. A knowledge of the English language, short of displacing other disciplines in our schools, is not within everyone's reach. To impose English is to close the door to scientific promotion on a number of good minds.<sup>2</sup>

This point is well taken, and it may indeed be necessary for English language studies to displace some other disciplines in French schools, at least for those students who anticipate a career in science. For such students, however, a knowledge of English will prove quite valuable.

Mr. Debré concludes that, "The advantage of the forum by Garfield is its function among others as a warning signal, for which we should thank him."<sup>2</sup> He goes on to stress promotion and monetary support for French research and publication.

In another letter to *La Recherche*, Jean-Marc Lévy-Leblond calls my article "scurrilous." He points out that the Greek roots of the French language allow a variety of linguistic nuances, concluding, "Let's carefully guard the privileged opportunities that Greek and Latin offer us to develop words perfectly French and, at the same time, totally comprehensible. We could not cut off these roots without severing by the same stroke the branch on which we so comfortably sit."<sup>3</sup>

Still another letter came from Hubert Joly, Secretary General to the Conseil International de la Langue Française. He says,

First of all, I will admit to Garfield that French is no longer the international language par excellence, and in fact it seems to me quite desirable that French researchers should publish the results of their work in several languages. The Conseil International de la Langue Française, on the other hand, vigorously protests the tendency of certain scientists to publish only in English, thus obliging French-speaking readers who were willing to finance the research with their taxes to assume an added expense or more work to secure a translation.<sup>4</sup>

As for my promotion of French-English bilingualism, Mr. Joly points out that similar efforts should be made to have French scientists learn German, Russian, Spanish, and other languages. In addition, Mr. Joly asserts that,

one can only rejoice at knowing that scientific and technical French increases spontaneously each year by some 4,000 new words, not to mention borrowings from other languages. It is nice that French speaking countries can describe in French all the realities of the modern world, employing the work on terminology by the Conseil International and the monthly journal *La Clé des mots*, which locates, processes and translates

into English, German, Spanish and Russian as well as Italian and Dutch close to 2,000 new expressions each year.<sup>4</sup>

Still another correspondent to *La Recherche*, Professor C. Vidal of the University of Bordeaux, asserts that my article

questions the existence of a civilization through the existence of the language which is the vehicle of its ideas.... If there is a question of quality with respect to certain French journals and if the statistics of ISI® bear this out, that is one thing. But to infer, as a result, that one should publish in English is definitely too much. Such a step must be denounced, especially since it would just add to the malaise already latent among French scientists.<sup>5</sup>

Professor Vidal goes on to assert that,

French has been and still is a language perfectly adapted for the expression of scientific thought. There is no reason that it should be abandoned under the pretexts of productivity and efficiency, notions which are still disputable. If the Americans today, the Russians tomorrow and the Chinese the day after do not give proper recognition to French language publications, then it will be clearly regrettable. However, there are remedies other than that of complete abandonment advocated by E. Garfield.<sup>5</sup>

A more lengthy discussion was published in three different French journals,<sup>6,7,8</sup> by S. Bonfils, the editor of *Biologie et Gastroentérologie*, and J.J. Bernier, the editor of *Archives Françaises des Maladies de l'Appareil Digestif*, who claim that,

Contrary to what others believe, it seems evident that continued dissemination of scientific works in French is indispensable if only for the following two practical reasons. One, it is easier to prepare manuscripts where the language employed during research corresponds to that of the paper published. Two, there is an important number of people, including colleagues, students, and followers of ideological movements, who have no desire to trouble themselves in reading an article written in a foreign language and who really resent this imposition especially by a French colleague.<sup>6</sup>

The authors of this paper present a practical, step-by-step guide for French authors:

1. French language publications should be included only in those journals with a constant and reliable readership. This would have the advantage of increasing the academic level of scientific journals with the subsequent attraction of more manuscripts.
2. For work in progress, the first publication considered as a prelimin-

ary report of results should be published in French and its references may be resumed systematically afterwards. In such a publication, an internationally acclaimed scientist should be presented as the first author to insure continuity of research at a high level.

3. With respect to a series of related papers, it would be a must to have at least one in French.
4. Whatever the language of publication may be, the bibliography of French papers relative to the subject matter should be as long as possible.
5. Those publications singular in their efforts to explore certain areas should be published in French provided there is a journal of a very high scientific caliber in the field concerned. In the same vein, one may suggest that techniques and general reviews should preferably be published in French, because they are almost always read regardless of the language of publication, for their convenience.<sup>6</sup>

French scientists certainly cannot be faulted for lack of interest in the language problem, which, as another correspondent points out, is not limited to the journal literature. Rémy Chauvin of René Descartes University points to the difficulty French scientists face when attending international scientific meetings which are conducted in English. Addressing himself to his French colleagues, he says,

It is not a matter of being able to read English fluently (we all can) or speaking it (no big problem), but you must know it perfectly and fluently in order to capture all the nuances of the discussion as in French. Most of us are not capable of doing so.

Our contributions to discussions are often lamentable, because we didn't fully understand. That, along with our accent, makes us pass for citizens of an underdeveloped country....

The solution? I don't have one on hand! I only know that the problem of communication at conventions has never undergone serious consideration; that Francophones have been the victims of a real cultural assault perpetrated by the English language (one should see all the Anglophones get up and leave the hall when a French speaker takes the floor); that the so-called international English language is rather strange in the mouth of a Japanese or certain Africans; and that their terribly harsh accent prevents communication from flowing....<sup>9</sup>

Mr. Chauvin's lament may cause us to feel a certain amount of embarrassment--the type of embarrassment elicited by unknowingly showing bad manners. Of course, most scientists do not mean to insult those who address scientific meetings in languages other than English. They simply do not want to waste their time becoming frustrated by their lack of comprehension. And it is positively uncivilized to denigrate a speaker because of his accent. However, I

suspect that the language problem at meetings will prove even more difficult to solve than the language problem in print.

Mr. J. David, Professor of Biology at Claude Bernard University, is a pragmatist; he admits that he publishes more and more in English, but claims that he "gets no pleasure from it." In his letter to the editor of *La Recherche* he takes a cold, hard look at the publication behavior of the international scientific community, commenting,

The morality of the scientific community is strict, at times ferocious; the acute "struggle for life" constantly persists. It is not a matter of obtaining a result and making a discovery. Authors must be recognized. Numerous examples exist of Anglo-Saxon scientists who, inspired by works in French, have more or less forgotten to indicate their sources.... One attempts to evaluate the productivity of a researcher according to the number and quality of his or her publications. We are asked to publish in "international" journals, to be recognized at an international level, etc. It is hardly possible to achieve this without publishing in English.<sup>10</sup>

Mr. David recognizes that economic facts--even more than national sentiment--determine the decisions of journal editors. He goes on,

Unfortunately, foreigners, especially in Anglo-Saxon countries, tend more and more not to know our language. So in order to increase both readership and profitability of French journals, we have progressively come to the point of publishing in English.

Is that to say French scientific culture is definitely condemned? Certainly not, as long as we continue to speak and teach French in laboratories and universities. But this situation itself is fragile; it requires protection, a favored status. If French science is abandoned directly to hard international competition, it will be using, before the end of the century, only the English language. If we wish to keep an important share for French and maintain privileged associations with French speaking countries (those in Africa, for example), we must be aided, particularly at the financial level.<sup>10</sup>

Finally, Gerard Lemaire of the Groupe d'Etudes et de Recherches sur la Science at the University of Paris has called my attention to an interesting article published in French in 1975. Lemaire remarks that the fact that I failed to mention this article in my own *La Recherche* piece "evidently confirms your results that English speaking people, i.e., Anglophones, do not read French language publications."<sup>11</sup>

The article itself, published in the French journal *Le Progrès Scientifique*, examines the diffusion of scientific results according to journal of publication, with the aid of the *Science Citation Index*<sup>®</sup>. The authors assert that,

Looking at the results obtained, the influence of the language of publication seems preponderant and a hasty conclusion could have led us to the condemnation of the use of French as a scientific language, relative anyway to the criterion of diffusion.

However, their results clearly show that,

the use of the French language is not a handicap in multi-lingual international journals....

It seems, therefore, that if journals published entirely in French (and *a fortiori* in Lithuanian or Japanese) discourage the foreign reader, articles written in French in multi-lingual journals, which obviously are dominated by the English language, are diffused just as well as if they appeared in English language publications.... If one wants to reconcile the objective of conserving for the French language its international character as a scientific language with that of assuring an optimal diffusion of knowledge, it would be desirable, therefore, to recommend to French researchers not to publish in French except in multi-lingual journals with an international audience.<sup>12</sup>

In addition to these varied responses to my article a full-page advertisement (opposite) appeared on the back cover of the January 1977 issue of *La Recherche*.<sup>13</sup>

In reply to present and future critics, I categorically deny that I am anti-French, or, for that matter, pro-English. In any case, these correspondents seem to ignore my basic message. International science has always been competitive. But in the era of big science it is especially so. To compete, one must use every available resource.

If French taxpayers support French "competition" in international science, isn't it against their interests if French scientists are required to publish exclusively in the French language? Why should French scientists resent bilingualism any more than do Dutch, Scandinavian, or German scientists? However, if the French taxpayers can afford the additional expense, then by all means they should subsidize the publication of their scientists' work in two or more languages simultaneously. In fact, in my article I suggest this very possibility for the best known French journal, *Comptes Rendus*.

The best way to guarantee the improvement of the international impact of French research is to improve the quality of French research itself. The best French research is now published in English. If the authors of these articles, the most recognized of French scientists, were to publish exclusively in French, their international status gradually would be eroded. In some cases, English-speaking scientists would be forced to obtain translations of these French articles, or they would have to brush up on their French. But as I stressed in my article, the effect

of serendipitous stimulation through the *casual* reading of these articles would be greatly reduced. It's true that the translated titles of these papers would be seen in *Current Contents*® and elsewhere. But once the French reprints are received and placed in the stack of dozens of other reprints, will they be read or cited?

# la Science Française est-elle si provinciale?

le CNRS et  
GAUTHIER-VILLARS  
répondent à  
Mr. Eugene Garfield

(LA RECHERCHE, Tribune Libre, septembre 1976)

LE

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I applaud the efforts of French terminological bureaus to keep up with world-wide changes in scientific nomenclature, just as I applaud efforts to improve the overall quality of French journal articles and to improve French documentation. However, such goals can be accomplished, among other things, by

improving the impoverished and deteriorated condition of French libraries. To cite just one example, among all nations France is one of the poorest users of the *Science Citation Index*.<sup>1</sup>

It is unfortunate that my article was interpreted by some as a denigration of French science. I tried to carefully distinguish between French research reported in French journals and that published outside France.

The ultimate solution to the provinciality of French science lies in the willingness of the French people and government to support research and graduate education on a scale that produces significant science. But even when that support is optimum it will be foolish to prevent proper recognition by archaic linguistic policies that serve only to raise the emotions.

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