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**ENGLISH-LANGUAGE DOMINANCE,
LITERATURE AND WELFARE**

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ABSTRACT

English-Language Dominance, Literature and Welfare*

The tendency of a single world market to privilege the translation of English fiction and poetry into other languages for reading or listening enjoyment may damage the production of world literature and in this respect make us all worse off. In order to develop this thesis, the article begins with an economic model of the market for imaginative works in which translations are systematically concentrated on writings in the original language with the largest share in world sales. The model is then shown to agree with the facts. Next, it is argued that high concentration of translations on works coming from one particular language hurts the production of literature directly, because variety of languages of origin is enriching as such, and indirectly, because the concentration damages the incentives of those who do not write in the leading language to invest in their own talents. 'Literature' in the paper refers to earlier production of imaginative works which represents capital or is still read.

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NON-TECHNICAL SUMMARY

If language served merely to convey information then a single language would be optimal in the long run. But language is not simply a means of communication. It is also a source of pleasures, interests and passions, and the resulting 'utilities' might grow with variety of tongues for everyone, if not otherwise through the medium of translations. In this respect, a single language could very well impoverish the future and the spread of English might not be a blessing. I develop this viewpoint in the paper. Quite precisely, my argument is that the tendency of a single world market to privilege the translation of English fiction and poetry into other languages for reading or listening enjoyment may damage the production of world literature and in this respect make us all worse off.

The bulk of fiction and poetry that provides us with stimulation or entertainment loses interest very quickly. This is true both for the written variety and the spoken one offered on radio, video and television and in the cinema. In the case of the written form, only a tiny percentage of works win long-lasting acclaim as accomplished literary art. Without pausing on the vexed question of what distinguishes 'great' books from popular trash, I reserve the term 'literature' for imaginative writing that rises above the mass of ephemeral products to achieve some staying power with the reading public. From this perspective, the output of literature depends on the supply of written fiction and poetry but cannot be identified with it. Accordingly, I begin my discussion with the supply of fiction and poetry and then proceed to analyse the production of literature. Since the distinction between prose and poetry does not matter in my discussion, both come under the umbrella term of 'imaginative works'. A consideration of the supply of imaginative works in audio-visual form, including the motion picture (the 'seventh art'), also enters the discussion but only less formally and after the close of a main section of the argument.

The formal analysis begins with the case of a single world language and the absence of any technical barrier to the worldwide diffusion of any written work. Under these conditions, I develop a model where heterogeneities of tastes and talents allow for the publication of a wide variety of manuscripts, but a scarcity of writing talents combined with an abundance of publishers means that authors are able to capture all of the rents. Therefore the law of one price holds. Once multiple languages are permitted to enter the model, publishers equate the marginal cost of publishing a translation and an original-language manuscript. But translations entail special costs and therefore publishers must economize on other costs of producing translations. These other costs regard selection. Translations are easier to select for publication than original

manuscripts, since their sales in the original language can serve as a gauge of demand. Quite significantly, therefore, only manuscripts that sell well will be translated. (Nevertheless, of course, translations will still represent a selection: not all bestsellers will be translated.) Consequently, authors writing in a home language with a large market will have an edge. It is then simple to show that if one language is significantly larger than any other one in the market for imaginative works, this language will win a disproportionate share of the translations. Indeed, the dominant language could monopolize translations. If a problem of diffusion is allowed to enter as well, it also becomes easy to show that reductions in distribution costs will particularly advantage the dominant language in the field of translations.

The model sheds considerable light on events. According to the evidence, language clearly represents a formidable protection for authors since even in small-language communities, translations constitute less than one-half of total works of fiction and usually closer to one-third. But the largest language in the market, English, does indeed dominate translations disproportionately, or to an extent going far beyond the language's relative market size. In a development that falls outside the model and probably reflects the increase in literacy and standards of living in the world, the market share of English in the publishing market – and in the section covering 'general literature' as well – has declined over the last 30 years. Yet the dominance of English in translations has actually gone up during this time. While English occupied about one-quarter of the publishing market in the early 1960s, the percentage of English in translations was already around 40%. As the share of English in world publishing fell to around 17% in the late 1980s, the language's share of translations rose to over 50%. In view of the fact that costs of distribution fell during the time, the model can explain all of these phenomena.

The welfare discussion focuses exclusively on the current production of imaginative works constituting capital accumulation rather than consumption, or that small part of the production that endures and is termed 'literature'. There are two sources for the damage of the monopoly of English in translations to literature. First, the small number of languages of origin is damaging in itself. Second, the monopoly of translations has an adverse effect on the pool of talents capable of producing literature. The grounds for the first source of damage are difficult to summarize; those for the second one less so.

In science as in literature, a highly gifted person writing in a minor language is likely to have a better chance of publication than one writing in a major one, but will necessarily have a much smaller chance of translation and international recognition. The result in science is clear. Those who strive to make a mark in their discipline try to publish in English. By and large, the ones who stick to their home language (English excepted, of course) have lower ambitions and do less significant work. The capacity of the natural and social

scientist to turn to English is essential, however. The scientist can do so precisely because communication rather than literary talent is critical in the scientific use of language. The situation differs on this very point in literature. There, as the evidence shows, the gifted – even the supremely gifted – generally cannot turn to English by mere dint of effort and will power. Thus, the dominance of English may sap their incentive to invest in personal skills and to shoot for excellence. For this reason, the pool of talent may dry up.

What I am proposing, in essence, is the prospect that literature will become just another field where the best work is done in English and where writing in other languages is relegated to the sort of provincial status that is already the fate of writing in so many areas of intellectual activity. The pleasures stemming from literature cannot be divorced from the linguistic medium, however, and those pleasures grow with the variety of languages. To have all of literature written in English would be comparable to having music written solely for the piano.

I. Introduction

If language served merely to convey information, then a single language would be optimal in the long run. In any hypothetical passage to this optimum, a lot of linguistic capital would be lost, and its possessors would suffer greatly. But once the people who lost this capital were gone, the new generations would have no reason for regrets – except out of concern over the welfare of the dead (which would pass with time) or out of historical interest (which a specialized minority could serve). The logic of these remarks possibly explains the usual complacency in many places about the spread of English as a *lingua franca*¹ in the world. But language is not simply a means of communication. It is also a source of pleasures, interests, and passions, and the resulting “utilities” might grow with variety of tongues for everyone, if not otherwise through the medium of translations. In this respect, a single language could very well impoverish the future, and the spread of English might not be a blessing. I will develop this viewpoint here. Quite precisely, my argument will be that the tendency of a single world market to privilege the translation of English fiction and poetry into other languages for reading or listening enjoyment may damage the production of world literature and in this respect make us all worse off.

The bulk of fiction and poetry that provides us stimulation or entertainment loses interest very quickly. This is true both for the written variety and the spoken one offered on radio, video, and television, or in the cinema. In the case of the written form, only a tiny percentage of works win long-lasting acclaim as accomplished literary art. Without pausing on the vexed question of what distinguishes "great" books from popular trash, I will reserve the term "literature" for imaginative writing that rises above the mass of ephemeral products to achieve some staying power with the reading public. From this

¹ The terms vary: in pertinent works, Hagège (1994) refers to a "vehicular" language; De Swaan (1993, 1995) to a "central" language.

perspective, the output of literature depends on the supply of written fiction and poetry but cannot be identified with it. Accordingly, I will begin my discussion with the supply of fiction and poetry and then proceed to analyze the production of literature. Since the distinction between prose and poetry will not matter in my discussion, both will come under the umbrella term of “imaginative works”. A consideration of the supply of imaginative works in audiovisual form, including the motion picture (the "seventh art"), will also enter the discussion but only less formally and after the close of a main section of the argument.

As both language and the technology of diffusion represent vital elements of my tale, I will start with the case of a single world language and the absence of any technical barrier to the worldwide diffusion of any written work. I will then introduce a problem of diffusion and, further on, a variety of languages. It will subsequently be possible to show that if the market in one particular language is sufficiently larger than any other, the total lack of technical barriers to diffusion can lead to the exclusive translation of imaginative works from that particular language into the rest. Imaginative works may still be written in the other languages (and surely would in any practical application), but only dominant-language ones will be translated. In a subsequent empirical section, I will offer data to substantiate these propositions: translations of fiction do indeed tend to be from English into other tongues, whereas translations into English are disproportionately small. Discussion of audiovisual entertainment will enter at this stage. Following the empirical discussion of market behavior, I will turn to the consequences for literature and welfare, where the relevant range of issues will broaden. At this point I will elaborate my main argument about the importance of the variety of languages that are translated and will defend the view that the dominance of English poses a threat. A brief concluding section will recapitulate the argument.

II. Theory

(a) *An overview*

It may be useful to summarize the main drift of the theoretical argument at the beginning. The analysis opens with the case of a single world language and no problem

of diffusion. Since reading a work takes time, each individual reads only a limited number of works, this number depending on the price of imaginative works in relation to prices of alternative occupations of leisure time. People vary in the amount of reading they do. Suppose the average person reads ten imaginative works a year. Obviously the ten works must differ, and in this respect, variety matters. But what matters much more is a heterogeneity of tastes among readers. If tastes were identical, everyone would read the same works, and there would then be room for only ten authors on the market (since each reader would also read exactly ten works). However, some people like mysteries; others prefer romances; still others favor science fiction. Moreover, individual readers prefer different authors, and writers supplying a particular class of works will therefore seduce a different public. For this reason, the numbers of authors on the market can be very large. The presence of a considerable heterogeneity of *tastes and talents* will be an essential element below.

According to the model, authors do not sell directly to readers: publishing firms do so instead. These firms perform one essential service: selection. Publishing firms decide which works to accept and which to reject for publication. Though all imaginative works differ, and though some sell better than others, a single price nevertheless arises for all works. The reason lies in the fact that authors possess scarce talents, whereas firms do not. As a result, the authors are able to reap all the benefits of higher sales through royalties. I assume perfect competition in the publishing industry.

Once a problem of diffusion is allowed to enter, more works are produced at a higher uniform price, and everyone reads less. After we admit multiple languages as well, still more works are produced at a still higher price. However, translations limit the protection that authors get from the language barrier. Since translations impose an extra cost on publishers, these firms must also economize elsewhere. They can do so by exploiting the added information they get from sales in the original language. Thus, the firms are able to spend less on choosing a translation than an original manuscript for publication. Not all best sellers are translated; only a selection of them are. Yet only works that sell well in the original language have any chance of translation. This feature

then says that the largest language will occupy a disproportionate share of the field of translations. The same feature also means that advances in mass communications particularly advantage translations of works in the dominant language.

It is important to emphasize that the argument does not pretend to explain the emergence of a dominant language. Why English occupies its extraordinary position today as a world language is a separate topic.² However, the model does explain why even though English now accounts for only roughly 15 to 20% of current titles in the world publishing market as a whole, around 50% of current translations are from English into other languages. Furthermore, the model does say that *market forces alone* admit the possibility that English will totally monopolize translations in the future, even if the language fails to increase its *share* of the market for original works. The welfare implications will follow only later, in a separate section.

(b) *A beginning*

To proceed with the actual analysis, let the number of titles or separate works produced be n , the number of copies of all works in the aggregate be Q , and the total world population of readers be N . Q/n then stands for the average number of copies per work, and if we identify output and sales, Q/N is the average number of works purchased by the individual consumer. I will assume that copies of all individual works sell at the same price P in order to avoid issues of page length, quality of print, illustrations, and so forth. (The reconciliation of a single price with differences in the popularity of separate works will come later.) The demand for works by the individual consumer will supposedly depend, in an ordinary way, on own-price P , the prices of alternative forms of leisure, and individual incomes. Works of an earlier vintage – which I will consider *en bloc* as literature at a subsequent stage – will be regarded as one of the alternative forms of leisure. Let us suppose next that the prices of all alternative

² On this topic, see Crystal (1997); for a more euphoric account of English's rise, consult McCrum, Cran, and MacNeil (1992).

leisure activities, without exception, and all individual incomes, are given. Consequently, if utility functions of individual consumers are completely separable in imaginative works, the aggregate world demand for these works can be written simply as

$$Q = f(P) N \quad f'(P) < 0 \quad (1)$$

This elementary formulation will serve throughout in this discussion. I will always suppose that at a given price P , people want some set aggregate volume of currently produced imaginative writing for stimulation and entertainment. In other words, they will wish to put aside a fixed amount of their time for this particular leisure activity as opposed to all others, sports, play, and the rest.

As indicated already, the critical question is the number of separate imaginative works that will satisfy the aggregate demand Q . Suppose as a start that there is a single world language and no problem of distribution. Preference for variety by the individual is important. But the typical form of Dixit-Stiglitz (1977) utility function would not work, since this formulation would mean that everybody reads everything, which is emphatically wrong. Quite the contrary, everyone reads a miniscule portion of the total current output of works, and n can be very large only because of differences in consumer tastes and authorial abilities to satisfy those tastes. I will assume that based on the heterogeneities, the maximal audiences of existing talents can be arranged in descending order according to a general function as follows:

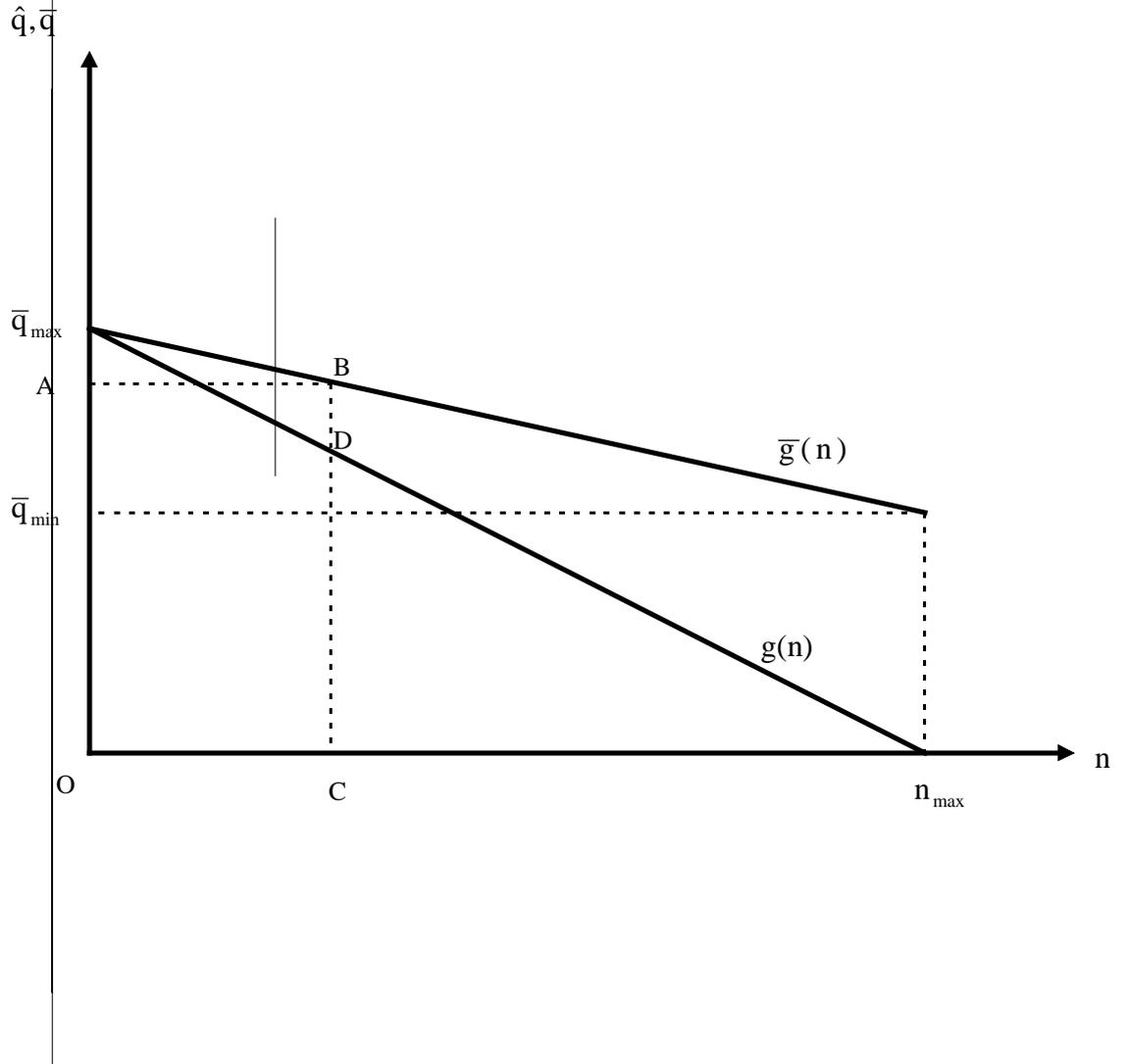
$$\hat{q} = g(n) \quad g'(n) < 0 \quad (2)$$

where \hat{q} is the maximum audience of the least popular work at any given n .

Figure 1, which treats n as a continuous variable, depicts the situation. The line designated $g(n)$ represents equation (2). Accordingly, the most popular work could sell \bar{q}_{\max} copies, and the total number of works could not exceed n_{\max} , at which point no one would pay a cent for the next best imaginative work. The function $\bar{g}(n)$ shows the corresponding *averages* of maximal audiences (\bar{q}) at different n values. ($\bar{g}(n)$ and $g(n)$ stand in the familiar relation of an average value to a marginal value.) Simply to illustrate, suppose that each consumer reads at least one work, and therefore $Q \geq N$, and

FIGURE 1

THE HETEROGENEITY OF TASTES AND TALENTS



also suppose that $N = OABC$. Then the relevant downward sloping section of the $g(n)$ function starts at point D along the vertical axis and the relevant one of the $\bar{g}(n)$ function at point B.

Supply requires far more development. There are publishing firms which select manuscripts and assure publication. These firms bear four types of costs: a cost per individual work F , a cost per individual copy of a work V , a royalty rate R for sales above a minimum profitable level, and overhead costs O . The cost F comprises two elements: first, a flat payment to the author for his time; and second, in-house expenses of selecting and editing a manuscript. The variable cost V consists of the material support, such as the paper and binding. With respect to any single work, F is a fixed cost and V a variable one; but as regards the activity of the firm, F is variable as well as V and the only fixed cost is O , the overhead cost. This next cost is intrinsic, since the processing of rejected manuscripts must call for expenses. I will also assume, very significantly, in line with these definitions, that the author of the least-selling manuscript receives the flat fee incorporated in F but no royalties. Accordingly, as regards the critical decision whether or not to publish, the profit-maximizing condition of marginal revenue equal marginal cost will be

$$P\hat{q} = F + V\hat{q}, \text{ or } P = (F/\hat{q}) + V \quad (3)$$

where \hat{q} is the number of copies of the least-sold work. As this reference to the same \hat{q} as before in equation (2) signifies, publishers select manuscripts correctly in order of popularity. They may not predict aggregate sales perfectly (as otherwise there could be no disequilibrium), but they always pick manuscripts in the right descending order. Thus, the previous equation (2) is also the expected sales of the marginal manuscript by the publishing firms. On the further assumption of perfect competition in the publishing industry, P additionally represents marginal revenue.

Perfect competition means zero profit, and therefore in equilibrium for the industry:

$$PQ = nF + QV + \Theta + R [Q - n\hat{q}] \quad P(Q - n\hat{q}) \geq \Theta \quad (4)$$

where R is the royalty rate that authors obtain for sales above \hat{q} and Θ the overhead cost for the industry as a whole. Θ will be taken to be exogenous and O , the overhead cost borne by the individual firm, as simply dependent on (and varying inversely with) the number of firms.³ The condition $P(Q - n\hat{q}) \geq \Theta$ must obviously be satisfied, since otherwise firms would not be able to meet their overhead costs. On this ground alone, a certain unevenness in sales is essential: if firms sold exactly \hat{q} copies of all individual works, the overhead costs would not be met and the market could not exist. Equation (4) evidently determines R , the royalty rate. If we eliminate \hat{q} from this equation based on equation (3), the solution for R becomes:

$$R = (P - V) \frac{(P - V)Q - nF - \Theta}{(P - V)Q - nF} \quad (5)$$

It follows that in the absence of Θ , R would simply equal $P - V$, and total royalties would be $(P - V)(Q - n\hat{q})$. But because of Θ , R is smaller, and R and Θ are inversely related.

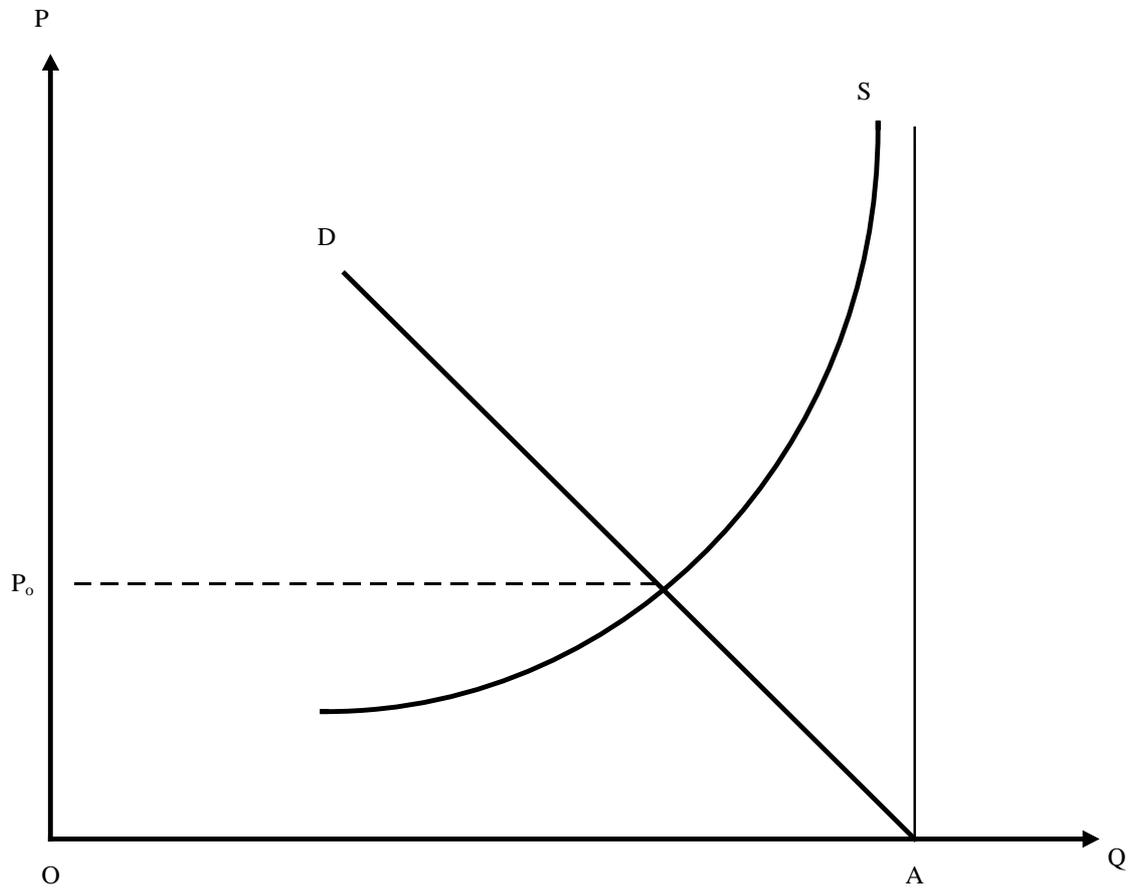
Quite critically, according to this formulation, publishing firms earn no more income on best-sellers than any other works. In light of the determination of R , their average cost, *inclusive of royalties*, always equals their marginal cost. The idea is simple: writing talent is scarce, but there are no barriers to entry into publishing. Therefore, those who can write very popular fiction and poetry will capture all the rents. Their surpluses will not be bid away through competition.

One delicate point in the analysis is the assignment of the same royalties to all authors per copy sold above \hat{q} . It could easily be imagined, quite differently, that authors of best-sellers would command a higher royalty rate (or a higher flat fee) than the rest since the fixed cost F of producing their work constitutes a smaller proportion of total revenues than that of producing others'. However, firms could only promise higher

³ This merely says that the total number of manuscripts needing to be disposed of is independent of the number of firms. The supposition has no other role but to make the competitive solution independent of the number of firms.

FIGURE 2

THE SUPPLY AND DEMAND OF IMAGINATIVE WORKS



royalty rates to these authors if they could determine beforehand that the sales of their works would be higher. Yet doing so would require special investigation and effort, which I will suppose to be too high to be warranted. In other words, assuming the costs would not yield a higher royalty rate to the more popular authors. Consequently, publishers simply undertake the same set effort in selecting and editing all accepted manuscripts: just enough to assure that sales will equal or exceed \hat{q} . If some authors really possessed unique talents, the notion that these people could not exact higher royalty rates (or flat fees) than the rest would probably be difficult to defend. Thus, it may help (though it is neither necessary nor sufficient) to follow Rosen (1981) in a similar context in supposing a perfect continuity of talents. If so, any person calling for a higher royalty rate than others because of an ability to sell more copies might indeed be raising a fine point.⁴

In order to close the system, the integral of equation (2) must be admitted:

$$\sum_{n=1}^{n^*} g(n) \Delta n = Q \quad n^* \leq n_{\max} \quad (6)$$

Equations (2), (3) and (6) form a supply block. Together, they give rise to a positively sloping supply of output, shown in figure 2. At any particular price, equation (3) sets an exact level of \hat{q} . As price rises, this profit-maximizing level falls, and as a result, based on equation (2), n must rise. From equation (6), there follows a corresponding rise in Q . Since \hat{q} can never become negative, the supply heads toward some upper limit as P climbs, and the slope of supply therefore becomes progressively steeper, as depicted in the graph.⁵ For example, in the case of the $g(n)$ function in figure

⁴ This would still not meet the objection that the talented authors might induce firms to group works into classes based on probable sales and to pay a higher royalty rate on those which can be expected to sell much better than the rest (in the same way that bankers divide up borrowers into risk classes to whom they charge different interest rates). For simplicity, I assume that even this lower degree of effort would be too costly to yield any fruit to the more popular authors.

⁵ Mathematically,

1, the upper limit to output would be given by the area of the triangle formed by the origin, \bar{q}_{\max} and n_{\max} (which would equal OA in figure 2). The condition $P(Q - n\hat{q}) \geq \Theta$ sets the minimal point on the supply curve.

It may help to fully grasp the model to observe that the individual firm faces an ordinary U-shape average cost curve, exclusive of royalties, and that, in the competitive equilibrium, each firm produces along the upward sloping portion of the cost curve (rather than at the minimum point of the U, as would usually be the case, and would be here too in the limiting example where production occurs but there are no royalties). The basic decision variable of the firm is the number of manuscripts it accepts, n_j (j standing for the individual firm). The marginal cost of n_j uniformly rises as n_j goes up because of the rise in F/\hat{q} (since F stays constant while \hat{q} falls). However, for low enough values of n_j , average costs fall since the fall of average overhead costs still predominates. At some point, though, the rise in the contribution of F to average cost (F/\bar{q}) as n increases will overtake the fall in the contribution of overhead costs O ($O/n_j\bar{q}$), and the cost curve will begin to rise.⁶ (The contribution of V to average cost is obviously constant.) This point will occur where $F = O/n_j$. As long as demand in the industry is above the minimum necessary to permit production (as in Figure 2), the firm will produce along the upward sloping portion of the average cost curve, and the difference between price and average cost will go entirely to royalties. If the demand for

$$\frac{\Delta Q}{\Delta P} = \frac{\Delta \hat{q}}{\Delta P} \frac{\Delta Q}{\Delta \hat{q}} = -\frac{F}{(P - V)^2} g'(n)\Delta n$$

Since $g'(n) < 0$, $\Delta Q/\Delta P > 0$. Further,

$$\frac{\Delta^2 Q}{\Delta P^2} = \frac{2F}{(P - V)^3} g'(n)\Delta n$$

(if $g''(n) = 0$) and therefore $\frac{\Delta^2 Q}{\Delta P^2} < 0$.

⁶ $O/n_j\bar{q}$ must fall with rising n_j despite the fall in \bar{q} , since \bar{q} drops more slowly than n rises because \hat{q} is positive.

imaginative works should increase, P will rise, the firm will produce at a higher n_j and total royalties will go up (as will R, with both P and Q rising).

The model is now complete: equations (1), (2), (3), and (6) represent demand and supply, and determine Q, P, \hat{q} , and n simultaneously, while R follows as a residual from equation (4). We shall proceed next in two stages: first by removing the assumption of absence of any problems of worldwide distribution, and then by lifting that of a single world language as well.

(c) *A Distribution Problem*

Suppose that the supplier cannot make available works of fiction to everybody in the world at the same cost. Rather, each firm operates in a particular circuit, and furnishing copies to customers located off this circuit entails special costs of transportation and intermediation.⁷ The simplest way to reflect the problem formally is to suppose that as the number of customers of any specific work grows, distribution costs steadily rise per individual copy.⁸ Assume then:

$$PQ = nF + QV + \Theta + \sum_{i=1}^n h(q_i) + R [Q - n\hat{q}]$$

$$h'(q_i) > 0 \quad P(Q - n\hat{q}) \geq \Theta \quad (4a)$$

where the new category of costs, $h(q_i)$, refers to the costs of distributing q copies of work i ($i = 1, \dots, n$) and, quite critically, $h'(q_i) > 0$ – these costs rise with q. As a result, the first-order condition for profit-maximization becomes:

⁷ This opens up scope for some of the familiar models of the spacing of consumers and firms, such as Hotelling's (1929) placing them on a straight line or Salop's (1979) putting them along a circle; but contrary to usual applications, the firms are numerous and perfectly competitive. I will not pursue this avenue of investigation here.

⁸ It is important here to keep in mind that the distribution costs do not include those of producing a larger number of copies. The latter concern the earlier variable costs V, which are admittedly subject to economies of scale. It would be straightforward to admit those neglected economies. But doing so would simply add some new negative terms that would essentially raise royalties.

$$P\hat{q} = F + V\hat{q} + h(\hat{q})$$

$$h(\hat{q}) \ll F \text{ for } \hat{q} \cong 0 \text{ and } h(\hat{q}) \gg F \text{ for } \hat{q} \gg 0 \quad (3a)$$

The condition about the parametric values attached to equation (3a) is quite critical. It opens up the possibility that publishing firms will be able to economize on costs by increasing the number of titles despite the consequent rise in F (or, more accurately, n times F).⁹ I will assume this condition always to be effective: that is, the increase in $h(\hat{q})$ relative to F to be such that distribution costs always promote n as \hat{q} rises.

Based on equations (3a) and (4a), the distribution of sales among individual works will no longer depend strictly on tastes and talents. Rather, publishing firms must now target n in order to maximize their profits, and barriers to the diffusion of individual works make room for more titles in the market than before. The previous function $g(\cdot)$ must then be rewritten accordingly. Suppose

$$\hat{q} = g^*(n, h(\hat{q})) \quad \frac{d\hat{q}}{d(h(\hat{q}))} < 0 \quad (2a)$$

where $d\hat{q}/d(h(\hat{q}))$ concerns the negative effect of distribution costs on \hat{q} .

As compared with the earlier system of equations (1), (2), (3), (4), and (6), the new system (1), (2a), (3a), (4a) and (6a) (where equation 6a refers to the new version of 6 corresponding to 2a) imply a lower \hat{q} , a higher P , a lower Q , and an ambiguous change in R . The rise in P comes from the higher marginal cost, the lower Q from the influence of price on demand, and the ambiguity of the change in R from the opposite impact of the rise in P and the fall in Q on R (see equation 5).¹⁰ Despite this last ambiguity, however, *total* royalties must fall since costs rise relative to revenues in the industry (demand is the same while costs are higher). Most important, the increase in $h(\hat{q})$ as \hat{q} rises suffices to cause n to go up. Even the most popular works do not sell as

⁹ Any fixed costs that may be associated with distribution (advertising, displaying and stocking an additional title) are best viewed as included in F at this stage.

¹⁰ The required revision of this equation because of $h(\hat{q})$ makes little difference. In the absence of the overhead costs Θ (underlying the relevance of Q), the equation for R would still reduce to $R = P - V$.

well as before, while some previously rejected (or unwritten) manuscripts now find a market niche (less severe competition).

(d) *Variety of Languages*

In many respects, different languages have the same influence on market events as distribution costs: both are barriers to readership. As a result of one and the other, some works that would otherwise not appear find their way into print, and the most successful authors reach smaller audiences and earn lower rents. However, translations limit the barriers imposed by languages. These activities restrict the fall in \hat{q} and the rise in n . None the less, translations cannot avoid either effect since they are costly. Furthermore, different languages correspond to differences in cultures and tastes which translations cannot totally surmount.

Once separate languages enter, the cost of publishing a work in the original language and in translation must be distinguished. Let the cost of translating a work, as such, be C_{tr} and that of selecting and editing a manuscript for translation be C^* . Given multiple languages, publishers will equate the marginal cost of producing a translated and an original-language manuscript. Since variable costs V and distribution costs will be the same in either case, firms will therefore set $C_{tr} + C^*$ equal F at the margin. But if so, C^* must be inferior to F . One essential element which makes it possible for this condition to be met is the fact that sales in the original language provide an important gauge of the probable success of a translation. It is not the only gauge (as otherwise there would be no costs of selection C^*), but it is present. The empirical evidence on this point is clear: translations are indeed concentrated on works already in print, and even on a minority of these works that has sold particularly well in the original language, even though this minority still constitutes a selection. As one student of the publishing industry observes: "Not surprisingly, what people most want to read [in translation] are other people's best-selling literature" (Curwen 1986, p.19).¹⁰ Except in connection with the selection of manuscripts for publication, however, I will consider that publishing firms behave the same way as regards original-language manuscripts and translations. They spend F on each and every single work – that is, a sum $C_{tr} + C^*$ equal

¹⁰ For other sources, see Ganne and Minon (1992) and Colas (1992).

to F in the case of each translated one – and simply assure themselves of sales equal or greater than \hat{q} .¹¹

Since every translation into a separate language represents a separate publication and entails separate costs for the firm, the relevant market variable is the number of translations, no matter how many times the same works are translated into different tongues. Suppose n_{tr} to be the number of the n original-language works which are translated at least once, and m to be the total number of translations into separate languages. Then we have $n_{tr} \leq m \leq n_{tr} \times (L-1)$ where L is the number of languages. That is, any translated work will be translated at least once and no more than $L-1$ times.

The new general form of the system, incorporating both translation and distribution costs, can now be represented as follows, where we continue to assume a single world price P for all works, independently of the language of publication (after suitable conversion at going exchange rates wherever relevant):

$$Q = f(P) N \quad (1b)$$

$$\hat{q} = g^{**}(n+m, h(\hat{q}), L/m) \quad L \geq 2 \quad m \geq 1$$

$$\frac{\Delta \hat{q}}{\Delta(n+m)} < 0 \quad \frac{\Delta \hat{q}}{\Delta(L/m)} < 0 \quad (2b)$$

$$P \hat{q} = F + V \hat{q}_n + h(\hat{q}) \quad (3b)$$

$$PQ = (n+m) F + QV + \Theta + \sum_{i=1}^{n+m} h(q_i) + R [Q - (n+m) \hat{q}] \quad (4b)$$

$$\sum_{n=1}^{(n+m)^*} g^{**} h(\cdot) \Delta(n+m) = Q \quad (n+m)^* \leq (n+m)_{\max} \quad (6b)$$

¹¹ The only point of this assumption, I repeat, is to avoid any tendency for firms to pay different royalty rates to different authors. As an additional consideration, in the case of translations, the author has already been compensated for the opportunity cost of his time and need only be paid royalties. But on the other hand, the rights to translate must be purchased from the original publisher. Industry sources agree that those two factors tend to cancel out. Thus, the basic difference between publishing a translation or an original manuscript surrounds the issue of translation rather any matters of rights and royalties. See Imrie (1992), p. 132, and Prigent (1997).

$$\frac{m}{n} = h\left(\frac{R[Q - (n+m)\hat{q}]}{PQ}, \frac{mC_{tr}}{PQ}\right)$$

$$\frac{\Delta(m/n)}{\Delta\{R[Q - (n+m)\hat{q}]/PQ\}} > 0 \quad \frac{\Delta(m/n)}{\Delta(mC_{tr}/PQ)} < 0 \quad (7b)$$

Let us start the discussion with equations (3b) and (4b) and come back to (2b) later. The first-order condition of profit maximization (equation 3b) does not change since $F = C_{tr} + C^*$: the minimum-sales of the translated works, \hat{q} , will be the same as the minimum-sales of the original-language works, \hat{q} . Conformably, the only required changes in equation (4b) relate to the need to sum over $n+m$ titles instead of n ones. The relevant distribution of sales in equation (2b) is then among the $n+m$ works. However, the protective influence of language now must appear in this next equation and does so via the variable L/m which enters with a negative sign. Multiple languages lower the minimum required number of sales for publication (more differences in tastes and in abilities to satisfy the tastes), while this effect is attenuated by translations. The exact formulation, introducing L/M , is not important. It could have been written instead as saying that the influence of L is simply moderated by m . Still, using L/m makes sense, since if a rise in L were to lead to an equiproportional rise in the number of translations, there would be little reason to think that more languages make room for additional authors. Equation (7b) is then essential (and would be so in a more general, alternative formulation where m simply limited the impact of L) because m appears as a separate variable as distinct from the sum $n+m$. Based on the two arguments in this next equation, best-sellers promote m/n while high costs of translation do the opposite. That is, the share of royalties to total receipts (which obviously reflects popularity of the average selection) raises m/n and the ratio of translation costs to total costs lowers m/n .

In order to see how multiple languages affect the results of the system, let us assume a rise in the number of languages L and ignore distribution costs for a moment. According to the specification, \hat{q} will fall (equation 2b) and thereby increase the number of publications $n+m$ associated with any given Q (equation 6b). By thus lowering \hat{q} , languages will raise P (equation 3b) and therefore lower Q (equation 1b). The change in R will be ambiguous, as before (for the earlier reasons seen in discussing

distribution costs) (equations 4b and 3b), but total royalties will necessarily fall because of the rise in total costs relative to total revenues ($n+m$ times F goes up while demand stays the same). Therefore m/n must go down, and this fall will be accentuated by the costs of translation C_{tr} (equation 7b). The fall in m/n also assures that L/m stays higher after the full upward (at least non-negative) adjustment in m . Admitting distribution costs only opens up some second-order cross-effects. Specifically, the rise in L/m will lower distribution costs by reducing $\Delta \hat{q}$, and thereby moderate the rise in P .

In sum, variety of languages multiplies the number of publications, reduces aggregate royalties, raises price and lowers aggregate volume. Thus, the curse of Babel (Genesis: 11.5-7) exerts much the same influence on market events as distribution costs:

"And the Lord came down to see the city and the tower, which the sons of men had built. And the Lord said, 'Behold they are one people and they have all one language; and this is only the beginning of what they will do; and nothing that they propose to do will now be impossible for them. Come, let us go down, and there confuse their language, so that they may not understand one another's speech.' "

(e) *Dominant Market Size and Advances in the Technology of Distribution*

From the previous analysis, it can be easily deduced that if one language community is many times larger than any other, the only translations may come from the dominant language. Assume that one-quarter of the world uses one language while the other three-quarters divides up into numerous language communities. Then the only heavy sales of original-language works may be in the dominant language. If so, all the translations can come from works that appeared originally in that language.¹²

Interestingly enough, publications in the other languages could still thrive. Those who write in the other languages might even possess a substantial advantage at home because of the costs of translation and local preferences for their modes of expression and sources of inspiration. Correspondingly, the most difficult language in which to publish might be the dominant one because of the larger pool of talents which is

¹² Note carefully that the proposition concerns the *share* of translations in total translations, and not *total* translations. As the dominance of one language increases relative to the rest, aggregate translations must fall beyond a certain point, since the field for translations goes down.

competing for attention there. Still, the only writers with any chance of translation might be those who use the dominant tongue.

If we assume the wholesale elimination of the distribution problem while we retain the hypothesis of a dominant language, then translations from this language into other ones could also grow by leaps and bounds. Suppose that mass communications and advances in computer technology remove distribution costs entirely. Every publisher can now reach any reader on the globe at the identical cost. In the small-language communi-ties, however, the language barrier could still keep the size of the readership of any specific work in the home tongue from rising significantly. By contrast, in the dominant language community, the readership could now concentrate on a far narrower selection of works. As a result, translations of works in the dominant language could flourish.¹³

Once again, if we look at the matter in relative terms, the authors exercising the dominant language could be those who suffer mostly. Each of them now needs to compete with every outstanding talent on earth who happens to write in his tongue. Each one's *effective* loss of protection may therefore be great, and his individual chances of publication may drop precipitously. For the other writers, whose effective protection had always come essentially from language, the only important rise in competition could come through translations and there could be far less change. Nevertheless, all the big prizes will go to authors exercising the major language: all the "superstars" will hail from their midst.¹⁴

¹³ In terms of figure 1 (regarding the world market as a whole), the problems of translation and distribution both diminish \bar{q}_{\max} and raise n_{\max} , but they alter the general profile of expected sales in different ways. Translation costs favor the high-sales end of the spectrum and therefore make the sales curve highly convex. Distribution costs, to the contrary, diminish the upper tail of sales and reduce the previous convexity. Therefore, a reduction in the costs of distribution causes the convexity of the sales curve to rise, in accordance with the text. (Note that the figure must now be seen as pertaining strictly to expected sales, and can no longer be viewed also as an exact mirror of the heterogeneities of tastes and talents.)

¹⁴ The allusion to Rosen (1981) is obviously founded. But whereas Rosen was concerned with explaining why enormous rents could be earned by possessing just a

It is interesting to consider also the more relevant empirical case where one language community is notably larger than the rest, while a number of the others are big enough to possess translated works of their own. Evidently, in this case, the dominant language could still corner a disproportionate share of translations and garner the lion's share of the producers' gains from improvements in communications and distribution. Less obvious, however, is how few the translations into the dominant language could continue to be.

Let the leading language community represent N_i/N of all readers, m_i/m be the ratio of the translations of works from this language into others and this ratio be less than one. Simply suppose, next, that the proportion of the translations of the other languages into the leading language is roughly proportional to N_i/N . If we signify the translations *into* the dominant language as ${}_i m$, we then have

$$\frac{{}_i m}{m} = \left(1 - \frac{m_i}{m}\right) \frac{N_i}{N} \quad (7)$$

The share of translations from the other major languages into the dominant one will fall short of the latter's population share and do so in direct proportion to m_i/m . Since the ratio m_i/m will also exceed N_i/N on previous grounds, the gap between ${}_i m/m$ and m_i/m – translations into and out of the dominant language – could be great and the ratio ${}_i m/m$ quite small.

III. The Empirical Evidence

little more talent than the next person, I am not especially interested in the private dividends of having an edge. A word might also be said about a seeming contradiction with Baumol and Bowen (1968). In a highly influential work, these two writers emphasize the tendency of technological progress to reduce profits in the arts. Of course, my stress is on the opposite tendency for such progress to increase the profits of writers (both in the aggregate and for a minority of them in particular). But what makes the contradiction merely apparent is the fact that Baumol and Bowen focus on the *performing* arts. If the artist need not be physically present – more exactly, if the same artistic output can continue to serve an ever-growing public without any renewed effort on the artist's part – Baumol and Baumol (1984) agree that improvements in mass communications can only increase the rents.

Before moving on to the welfare issues, it is essential to pause to examine the accordance of the empirical evidence on the dominance of English with the previous theory.

(a) *Publishing*

The yearly reports of UNESCO provide annual series for published titles in the post-World War II period, subdivided by country and language. The series are fairly complete up through 1987 but have become spotty since. As regards 1960 through 1987, I have compiled Table 1 predominantly from this source. The first row, which concerns the ratio of translations to *total* titles, shows a decline from 9 to 7 percent during this time. The second row indicates that roughly half of all translations fall under the classification of “general literature,” which encompasses “fiction,” “literature,” and “poetry.” This classification comprises reeditions of all sorts, including the classics, and therefore exceeds the number of currently produced titles (n) in the previous discussion. But nevertheless the statistic is close to our present concerns. UNESCO does not provide a world aggregate for translations of “general literature” but only for individual countries. However, a check of the major publishing countries for a large number of years shows that the percentage of literature to total titles stands in the 0.15 to 0.30 range. Thus, for the 1960-87 period on average, translations represent 13 to 27 percent of titles in the “general literature” classification (0.08 times 0.5 times 100/30, at one extreme, 0.08 times 0.5 times 100/15, at the other). The moderate size of this figure should be stressed. It supports my previous emphasis on the “home-court” advantage of a separate language. Among the major publishing countries in the world, the percentages of translations to titles in the “general literature” classification also predictably tend to be higher in smaller countries than bigger ones: for example, in the Netherlands, Denmark, and former Czechoslovakia than in Spain or Italy. But with few exceptions – Sweden is an outstanding one – even in the small-language communities well over half of published titles of “general literature” – indeed closer to two-thirds – originally appear in the home tongue.

As a measure of the size of a particular language community relative to the entire market for imaginative works, I have chosen the ratio of total titles in the language relative to the world aggregate. The major alternatives have serious defects. The number of people in a particular language community relative to the total world population would put too much weight on demography. The output of a separate language community relative to world output would put too little weight on demography, and on education as well. For example, in the latter case, the relative population size of Hindi readers would count little; so would the exceptional education and demand for books of Czech readers. Table 2 ranks the four major world languages in the publishing industry since 1970 on the basis of the chosen criterion. This next table is much more approximative than Table 1, being based on less complete data. Furthermore, the Russian figures in the table are grossly exaggerated by the incorporation of numerous political tracts. As this last distortion has declined in recent decades, Russian's share has fallen off. With the recent break-up of the Soviet Union, this language has retreated even further.¹⁵ My discussion of the size of the leading languages will therefore concentrate on English relative to German and French.

The share of English in the market as a whole was particularly high in the early postwar period and has fallen off since. Indeed, the dominance of English in publishing is rather smaller than could be expected from other social observations. Nevertheless, as of 1990, the share of English was still equal to those of German and French combined. Based on these orders of magnitude, Table 1 confirms the earlier theoretical proposition that the leading language would tend to be disproportionately important in the field of translations. Row 3 of Table 1 shows that while the share of English in the market was still 24 percent in the sixties (Table 2), its share of translations of literature was already over 40 percent. When the relative size of the language then fell off to only 17 percent of the market by 1990, its share in translations of literature rose to over 50 percent. According to the previous theoretical analysis, this rise in percentage of translations in

¹⁵ For a broader treatment of the recent decline of the Russian language, see Kreindler (1993).

the face of a fall in market share could be explained by technological advances in publishing, transport and telecommunications and associated reductions in distribution costs in the seventies and eighties. Of course, I cannot pretend to have shown that the interpretation is correct, but it is consistent with the facts.

Rows 4 through 7 confirm the resulting theoretical implications for translations *into* English. These next few rows include information from a variety of other sources besides UNESCO for the years since the mid-eighties (see the notes). The rows display ratios of translations to titles of only 2 to 4 percent both for the UK and the US (rows 4 and 6). In regard to the “general literature” classification as such, the ratios are a bit higher, at least in the UK: 4 to 5 percent since the mid-seventies. I have no separate statistical information about the literature classification for the US since 1980, but according to informed sources (see Colas 1992 and Dalley 1995, for example), the corresponding US figures are not much higher. The US ratio of translations to titles in literature used to be twice as high as the UK's in the sixties and seventies. However small all of these figures may seem, equation (7) shows them to be larger than might have been expected based on general principles in the light of the extraordinarily high ratios of translations of English into other tongues.¹⁶

None the less, translations into the other major European languages happen to be considerable by general world standards, and as a result, those into English remain

¹⁶ If half of the world's translations consist of works originally published in English, then had the other half been translated into English roughly in proportion to the relative size of English in the world market (say, 20 percent), then we would have expected translations of non-English works into English to be around 0.7 of one percent of total English titles (0.5 times 0.07 times 0.2). In fact, the number was higher: between 2 and 3 percent instead. In the case of “general literature,” where translations may represent as much as 30 percent of world titles (rather than only 7) the percentage of translations into English might then have been expected to be around 3 percent of English titles (0.5 times 0.3 times 0.2). Once again, the actual figure is higher; it is closer to 4 (even 5) percent. These figures also understate translations into English somewhat since they fail to take into account such translations outside of the US and the UK. But these translations are small. (It should be noted that a number of European countries subsidize translations of home literature into English, most of these subsidies going to British publishers and therefore entering into the previous statistics; see Barrett-Ducrocq, ed., 1992, especially Colas 1992).

stunningly low in the comparison. Table 3 derives from a study that was financed by the Commission of the European Communities (BIPE conseil 1993). The statistics are only partial, as they relate to one particular year, 1991. They also focus strictly on translations into the home language, and therefore fail to reflect the (small) extent to which some European countries outside of the UK translate their own authors into English. (Corresponding translations of English authors into non-English languages are utterly negligible in the UK.) But the general impression the statistics convey is confirmed by a variety of other sources, including a study by the research department of the French Ministry of Culture (1990), a related and broader investigation by Heilbron (1995) (giving special, though not exclusive, attention to the Netherlands), and a check of UNESCO data. The first three columns display the much greater importance of translations into the home language elsewhere in Europe than in the UK: the difference is in the order of 8 to one! As can be seen from the data, even a country as small as Portugal translates more French and German into the national tongue than the UK.¹⁷ Note also the aforementioned tendency for a higher ratio of translations in the smaller countries than the larger ones.¹⁸

(b) *The audiovisual sector*

Much of the supply of fiction, of course, comes through film, radio and television. In the area of auditory and audiovisual entertainment, the dominance of English is far greater than in books.

To begin with cinema, the best measure of market share would probably be theater attendance. The number of films corresponds more closely to titles, my chosen measure in the previous discussion, but India alone produces almost three times as many

¹⁷ Of course, Portugal may be an entrepot for the Portuguese-speaking world and therefore not so small. But still the contrast with the UK is striking. Compare a more recent study by Heilbron (1998).

¹⁸ Except for Belgium, where the publishing industry holds an extraordinary place in the field of children's books and cartoons (*Tintin*, etc.). The Belgian publishers in the field also notably prefer translating themselves rather than selling the rights (which may have something to do with the combination of words and images).

films as the US in recent years. Furthermore, the differences in investment in individual films are far greater than in individual books. For 1995 the figure for investment in films is 36 million dollars for the US, and the next highest one outside of the English-speaking world is – a highly subsidized – 5.3 million dollars for France (IDATE 1997). The contrast would be even more marked if investment in the distribution (as well as the production) of films were included.

Table 4 displays the extraordinary dominance of the US film industry in North America, Europe and Japan. The largest European countries were still attracting 30 percent of their national audiences to domestic films as recently as 1985. But by 1994, this figure had fallen to 15 percent, while the US share of the gate had risen from 53 to 74 percent. In Japan, where the decline of the home industry has not been as pronounced as in Europe, it is estimated that the US captures about 95 percent of total foreign film receipts (as opposed to 87 percent in Europe most recently). By contrast, within the US, *foreign-language* films grossed less than 2 percent of the gate in the eighties and currently only win 0.7 of one percent. In the sixties, however, these films still accounted for 5 percent of the US box office – not terribly much but proportionately far higher. In addition, and with obvious connection to language, British films grossed four times more than all of the rest of Europe combined in 1994, or 3 percent of the US box office. Correspondingly, as seen from Table 4, the British film industry cannot resist the competition of US films at home as well as the national film industries of France, Germany and Italy can.

The dominance of the US in the programming of fiction on television is smaller than in the cinema but still far greater than in publishing. UNESCO conducted a global study of the flow of television programming in 1972-73 and then repeated the exercise for a 2-week sample period in 1983. Both studies yielded similar results. In the area of fiction ("entertainment"), imported programs accounted for about 53 percent of the total programming time in Western Europe, Asia and the Pacific, and 72 percent in the rest of the world except for the US and the Soviet bloc (Varis 1988). The share of the US in the imports of television programs (not broken down separately for entertainment) stood in

the forty-percentage range in Europe and roughly 75 percent in Latin America. On the other hand, the US imported only 2 percent of its television programming, mostly from the UK.

Since these studies took place, the US share in the world-wide screening of fiction on television has only risen. More recently, Western Europe imports well over 53 percent of its screening time of fiction, and over two-thirds of the imports come from the US, a good part of the rest from the UK. So far as any European countries besides the UK export television programs, the flow follows the geography of language: Germany exports to the German-speaking countries and France to the French-speaking ones (Maggiore 1991, Biltereyst 1993, Karmitz 1993). Correspondingly, the US audiovisual industry (including cinema, television, video and radio) even overtook aeronautics as the nation's largest exporting industry as of 1995 (IDATE 1997, p. 47). The US trade surplus of audiovisual goods vis-à-vis Europe more than tripled in the seven-year stretch from 1988 to 1995. In 1995, the US exported about 14 times as much as it imported from the European Union (*ibid.*, p. 157). Furthermore, the European Audiovisual Observatory estimates that of the imports into the US, about 80 percent stem from the UK.

(c) *Interpretation*

There are two important respects in which the earlier theoretical analysis applies to the audiovisual sphere as well as publishing. First, the technology of diffusion affects the size of the potential audience. Second, translation is a problem. Dubbing or subtitling is necessary in cinema and television. Those methods of coping with language differences are not only costly but mar the quality of the product. People clearly prefer to hear the actors' own voices, spoken in harmony with the movements of their lips, and without sub-titles. Based on those two points of similarity, it is interesting to explore the possible extension of the previous theoretical analysis in publishing to US dominance in the audiovisual sphere. If application there be, the gist of the argument would go as follows.

In the case of audiovisual entertainment as in that of publishing, separate languages set up market barriers to sales. So far as domestic revenues provide a criterion of selection of products for potential dubbing and sub-titling for foreign distribution, the US bears an advantage by possessing the largest home-language audience in terms of value of sales.¹⁹ In addition, if only we abstract from regulatory interferences, the advances in telecommunications in the last thirty years have virtually broken down all market barriers except for cultural ones, including prominently language. These last advances, in fact, have been more marked in the audiovisual sphere than in publishing (*viz.*, home-video and broadcasting by satellite). The attendant reductions in distribution costs then have favored the dominance of English products for dubbing or sub-titling. But upon close examination of the argument, grave problems appear, especially for the cinema.

A film clearly need not succeed in the home market before being made available to foreign-language cinema audiences. US film-makers often depend on the foreign gate from the very start. Many films open simultaneously abroad and at home, and some domestic flops are foreign hits. In addition, Hollywood achieved an important place in the cinema in the era of the silent film. Its success on the world market therefore cannot be simply attributed to the size of the English-language market. The dominance of the American film industry must have something to do with its ability to overcome the handicap of dubbing and sub-titling by offering more popular visual entertainment. Therefore, the argument fares rather poorly with respect to films.

The situation differs in the case of television. US television series are indeed essentially produced for domestic consumption and only travel abroad when successful at home. Similarly, the pricing of television programs to foreign stations bears no relation to production costs but is calculated strictly on the basis of the specific foreigner's ability to pay and his alternatives. Correspondingly, studies of audience

¹⁹ With respect to audiovisual products, spoken accents distinctly make a difference. British English is known to be sometimes dubbed on television in the US, as is Castillian Spanish in Latin America. Therefore, it is quite reasonable to distinguish between the home-language market of US and British firms in the audiovisual field.

ratings in Europe and elsewhere show more prime-time viewing of home-language rather than American-made fiction, even though the local programs are produced on much lower budgets and are technically inferior in many regards (see Biltereyst 1991, 1992, Hoskins and Mirus 1988, and Tracey 1985).²⁰ Those conditions clearly confirm the importance of the size of the home market as a root element in explaining US dominance in television.²¹ Yet those conditions also imply important deviations from the earlier competitive model, so that the argument would need adaptation.

In sum, the ground for extending the previous theoretical analysis to the audiovisual sphere is much greater in the case of television than the cinema, but even as regards the electronic box, success will require further effort. The analysis was designed for publishing, or a market where acting, photography and sound effects do not enter. In the subsequent welfare discussion, I will focus exclusively on the written word.

IV. Welfare

Most fiction dies shortly following publication. A tiny fraction survives. In the terminology of the economist, most fiction represents consumption; a bit of it is capital. The capital issuing from earlier imaginative writing provides an external benefit to society. The costs of assuring continued availability of the services of the writing are small. Selection no longer absorbs resources (certainly not to the same extent as when producing the manuscript in the first place was the issue), copies can pass readily from hand to hand (without necessarily discouraging the publication of new titles), and the consumer surplus grows automatically with the expiration of royalty rights (making reproduction no legal problem). In some cases – Shakespeare, for example – the bonus

²⁰ References to discriminatory pricing practices by US television channels are legion and confirmed by officials at IDATE and the European Audiovisual Observatory, but there is a dearth of statistical information.

²¹ Compare Hoskins and Mirus (1988), who try to explain US dominance in world television with the use of the notion of a "cultural discount" in a manner similar to the one I make of the problem of translation in publishing. *Inter alia*, see a recent "schools brief" on globalisation in mass communications in *The Economist* (1997), and Grin and Hennis-Pierre (1997).

to society is colossal. In order to avoid inessential detail, I will simply assume that earlier output of imaginative works enters into the public domain and is accessible for free. I will also use "literature" to mean that small fraction of current output which continues to provide pleasure to future generations. This manner of proceeding avoids any judgment about esthetic merit or the refinement of the public's tastes. But nevertheless, the production of literature, as defined, relates strongly to cultural concerns. Literature will still cover the vast majority of works specialists consider as great poetry and prose, and in addition, the *value* of literature (depending, as it must, on the present discounted value of the entire future stream of expected services), will consist predominantly of the prized "classics," in every sense of the term.

The welfare implications of the earlier market analysis relate exclusively to the production of world literature. This earlier analysis says that if costs of distribution continue falling through technological progress, English could even monopolize translations in the future. All the welfare implications follow from this proposition. There are two reasons why a monopoly of translations by English would diminish welfare. First, variety of source languages in translations makes literary capital more valuable as such. Second, strict translations from a single language into all the rest narrows the pool of talent which is capable of contributing to world literature. On both grounds, exclusive translations from English into other tongues will lower the accumulation of social capital in the form of world literature. I will first present both arguments, and next discuss the qualifications.

(a) *The importance of the number of languages that are translated*

In the case of literature, as opposed to other uses of language, language does not serve merely to communicate subject-matter (say, a story line) but is itself an essential source of enjoyment. Therefore, it is futile to argue that everything would be the same if all potential contributors to literature wrote in the same language. We might as well pretend that there would be no loss if all musical composers wrote for the cello. A translation can only approximate the rhythms, sounds, images, allusions and evocations of the original, and in the case of literature, these aspects are essential. Thus do the

classics of world literature continue to be translated anew into the same languages as before. The confinement of contributions to literature to original writings in English would therefore bring inevitable losses.

Admittedly, only polyglots derive the *full* benefit of multiple languages over any limited range. But for the most part, even they depend heavily on translations for their knowledge of world literature. The point is essential: each person acquaints himself with world literature through a limited number of languages and relies on translations to a greater extent than he is typically aware of. English readers would suffer along with the rest from the lack of contributions to literature in other languages than their own. English has been expanded in the past by the translation of literary classics from Homer onwards.²² Continuing translations into English are needed to stretch the language further and open up new literary veins. Moreover, the absence of translations into English would evidently limit the cultural experiences and perceptions that English readers would encounter in literature. Non-English readers would be somewhat better off in this respect as long as translations from English continued, since they would at least benefit from the inspiration that the English language and English authors would provide. But they would be similarly deprived in other respects. The title of Hagège's work, *Le souffle de la langue* – the *life-breath* or the *life-spark* of language (clearly meaning languages in the plural) – is quite appropriate.

(b) *The damaging effect of language dominance on the supply of literary talent*

Remarkably few people have ever made contributions to world literature in more than one language. Beckett and Nabokov may be the only two prominent examples. Conrad, who is sometimes mentioned in this connection, is a false illustration in a glaring regard. He never wrote in his native Polish. Quite conspicuously, expatriate authors generally continue to write in their native language even after living for decades away from home. This holds not only for poets, such as Mickiewicz and Milosz, which may not be surprising, but also for novelists. Mann went on composing in German during a long spell in the US. Though established in France for many years and

²² On the fascinating history of translations of Homer into English, see Steiner (1993).

frequently publishing essays in French, Kundera has only recently ventured to write novels in French rather than Czech. Brodsky also produced a moderate volume of poetry in English in relation to his large Russian output. In her discussion of expatriate authors, Beaujour (1989) mentions a number of writers who engaged in a fairly steady flow of creative writing in two tongues (e.g., Triolet, J. Green). But her sample is modest, and Beckett and Nabokov are her only examples of unquestionable international stature.²³ Quite generally, the list of authors who have inscribed their names in the history of literature in more than one language since the beginning of time is astonishingly short.

Interestingly enough, many authors, of course, grow up in a multilingual environment. In numerous examples, they receive their basic schooling in a language different from the one they use at home. There must be a time when a choice still exists about employing one language or another for creative writing. Evidently the issue does not always pose itself at a conscious level. It is not clear that Ionesco ever hesitated about using French as opposed to Roumanian or Kafka about adopting German rather than Czech. But there are counter-examples. Gogol pondered the issue of Ukrainian or Russian, his ultimate choice. For authors from formerly colonized parts of the world, choosing the language of the former overlord rather than the native tongue (or one of them) may even entail a serious moral dilemma. There is a literature on the subject (see de Swaan 1995). But once a choice of language for creative writing has been made, it seems to be irrevocable. Notwithstanding Beaujour's (1989) interesting examples, authors generally marry themselves to a language the way a professional musician does to an instrument. After the clarinette has been adopted, the oboe can no longer be played with the same proficiency. Once the muse has visited an author once, she will refuse to whisper to him again in a different tongue.

The relationship between the author and his or her audience, or the supplier and his or her market, is another vital topic. Many authors of fiction have no pretension of

²³ Nabokov wrote of his emotional pains in his early efforts to switch from Russian to English (see Beaujour 1989, who brings the material together). As regards Beckett, Beaujour's appendix is enlightening.

writing except for the present. The possibility that some of them may nevertheless do so or produce a work of lasting interest raises a minor point. In general, those who possess the right gifts still require the right education and effort. They need an awareness of the literary achievements of the past and must make a substantial investment in their own skills. Those engagements do not happen independently of environmental stimuli. My earlier analysis and evidence come to bear at this particular juncture.

According to the preceding discussion, a highly gifted person writing in a minor language is likely to have a better chance of publication than one writing in a major one, but will necessarily have a much smaller chance of translation and international recognition. If we accept the analogy to science, where a similar situation holds, the result will be to give the writer a smaller incentive to make the required investment for a possible contribution to literature. To expand on the analogy, the natural or social scientist of outstanding ability whose preferred language is other than English can generally publish readily in his own language, even in the most prestigious journal in the field, but will have much greater difficulty doing so in a similarly ranked journal in English. Yet publishing in English will earn him far more recognition. The result is clear. Those who strive to make a mark in their discipline try to publish in English. By and large, the ones who stick strictly to their home language (English excepted, of course) have lower ambitions and do less significant work.

Obviously, the capacity of the natural and social scientist to turn to English is essential. The scientist can do so precisely because communication rather than literary expression is critical in the scientific use of language. The situation differs on this very point in literature.²⁴ As argued, there the gifted – even the supremely gifted – generally cannot turn to English by mere dint of effort and will-power. Consequently, budding talents evidently will make a greater investment in their writing skills in languages other

²⁴ Whether the situation in philosophy, history and the humanities resembles the one described in science or literature is a big, vital issue, which spills over into social science as well. Yet nobody would contest that economics along with mathematics and physics are perfectly translatable into English, whereas the foreign-language classics of literature are not. I wish to pitch my tent on the clarity of this distinction.

than English, and this admittedly weakens my case. But the argument still stands. The non-English writers will find it much easier to publish than their counterparts of equal native talent who write in English. In addition, their reading public, being more confined and possibly more inclined to see merit in those who express themselves in the home tongue, will probably be less exacting. According to the evidence from the natural and social sciences, those circumstances sap the incentive to invest in personal skills and to shoot for excellence. This evidence would show that a situation where local fame and attention comes readily, whereas international recognition is almost beyond reach, does positive harm to the supply of enduring work.

Both the difficulty of switching to English and the greater relative ease of success in home languages other than English will tend to drain the world's pool of literary talent.

(c) *Attenuating factors*

Two major attenuating forces exist. But how important are they? First, a number of non-English languages possess rich literary traditions of their own and still occupy significant shares of the publishing market. Staggering as it is, the dominance of English in publishing is much smaller than in film and television. To some extent, this difference in publishing probably reflects the reading public's stronger concern with language than the audiovisual one's. The difference likely also owes a lot to the tendency of readers with strong literary interests to assimilate at least some foreign literature in the original. This last tendency among English readers may help to understand the extraordinarily low figures for translation into English that we saw before. Thus, for the foreseeable future at least, authors writing in some of the non-English languages, will still be able to count on a sizeable international audience.

It is nevertheless of note how few of the past greats of world literature writing in anything other than English ever built their reputation independently of translation.

Racine is probably a good example,²⁵ but then he belongs to a period when French was the dominant language.²⁶ Other convincing examples (especially outside of French) are surprisingly difficult to find. Even a poet of the current stature of Pushkin only gained his international reputation with considerable delay almost surely because of the problem of translation.²⁷

The second factor attenuating the harm done by concentration on a very narrow set of languages in imaginative writing is the adoption of the major languages by offshore writers with distinct cultural experiences and writing programs of their own. The contributions to English literature of the Irish, from Joyce and Yeats on down, are stunning. The contemporary examples are even more geographically far-flung: Walcott and Naipaul come from the West Indies, Rushdie from India. While the empire is gone, the sun never sets on the English language. Similarly, four of the last ten Prix Goncourt in French have gone to authors from the Caribbean, North Africa, Lebanon, and to a naturalized Russian. The importance of Latin American contributions to Spanish in this century cannot go unmentioned. The breadth of cultural infusion that results obviously reduces some of the damaging effects of language dominance.

V. Conclusion

I began this discussion with an economic model of the market for fiction where competition yields a common price even though all individual products differ.

²⁵ In his inaugural lecture after assuming the chair in comparative literature at Oxford University in 1994, Steiner (1995) makes a point of the much greater accessibility of Shakespeare than Racine through translation.

²⁶ The height of French supremacy in letters and diplomacy is usually taken to be the seventeenth century. But Nabokov (1959) recounts that Russian writers still tended to read the English classics in French in the early nineteenth century. See Heilbron (1992).

²⁷ With respect to Pushkin, Flaubert wrote to Turgenev: “il est plat, votre poète” [he is flat, your poet] (Mirsky 1963, p.239) – rather indicative of the general problem of translation. Of course, Nabokov also had many unkind words to say for the early translators of Pushkin. But then Nabokov's standards were pitched rather high: nothing fits his general mood on the subject of translation better than the Italian “Traduttore, traditore” [translator, traitor] (Nabokov 1975).

According to the framework, the presence of multiple languages expands the variety of products and the number of authors, while lowering individual and aggregate consumption by raising price. The model does not explain the emergence of a dominant language, and has no vocation to do so. Two important results follow, however, *if* the market share of a single language greatly exceeds the rest. First, the major language will show larger sales per individual work than any of the others. Second, this language will particularly dominate translations. In fact, all of the translations could be from the major language into the rest for the simple reason that sales in the original language will provide a fundamental criterion of selection for translation. Thus, only works published in the dominant language might sell enough copies to be eligible. A reduction in distribution costs would then necessarily raise translations from the dominant language into the rest, but might fail to yield any similar addition to translations of works written in other languages since the sales of those works could still remain too small.

The model was shown to shed considerable light on events. Language clearly represents a formidable protection for authors since even in small-language communities, translations constitute less than half of total works of fiction and usually closer to a third. In addition, the largest language in the market, English, does indeed dominate translations disproportionately: that is, to an extent going far beyond its relative market size. In a development which falls outside the model and probably reflects the increase in literacy and standards of living in the world, the market share of English in the publishing market – and in the section covering “general literature” as well – has declined the last 30 years. Indeed English has dropped off in size relative to the next two or three major languages in the world. Yet the dominance of English in translations has actually gone up during this time, whereas translations into English have remained as low as before. The present analysis puts down these events to the contemporary improvements in communications and reductions in distribution costs.

While lower distribution costs yield incontestable benefits since they spare resources which can now serve to produce something else, I have argued that the associated dominance of English in translations is a damaging offshoot. The harm I have

in mind relates to the production of enduring works, those that make a lasting contribution to literature. Another kind of general damage is a reduction in cultural variety and cross-fertilization of languages everywhere except for the enrichment coming from English. But as regards the accumulation of literary capital, the increase in the dominance of English in translations lowers welfare in ways that could even dwarf this last problem. The pool of talents capable of producing literature dries up. Consequently, less of the current output of fiction and poetry will serve to nurture the young in future generations and to yield pleasure and stimulation in future adult lives. The resulting damage, having little to do with the distribution of welfare between different language groups (apart from issues of cultural prestige which I have studiously avoided), affects the English-language community as much, if not more, than the rest.

My position could come under attack on the ground that the supply of great literature in languages other than English is utterly unpredictable and depends on the emergence of writing genius with an irrepressible need to express itself. In the recent 1992 edition of *After Babel*, Steiner repeats his earlier assessment (1975): “Like no other tongue before it, English has expanded into a world-language” (1992, p. 492). Yet, even in the last edition, his only expressed disquiet on the subject remains, as it was before, the possible adverse effect on English itself coming from an enlarged use of the language as an impoverished go-between. I am more apprehensive. Let me close by voicing one last time the grounds for my broader alarm.

Literature must meet a market test since an author must find a publisher. Meeting the test alone, however, will not assure *any* production of literature even by people with the right endowments. Gifted individuals must also have the proper motivation and make the right investment in their own skills. If those people are constituted like others with a similar need to invest heavily in their own skills before they can make a contribution to their discipline, then circumstances where they cannot hope to reach a world audience in their own language will discourage them from shooting high enough and making the necessary effort. Evidently, other factors may intervene. Who can say whether a spurt of regionalism in Catalonia will not incite a major literature in Catalan,

just as a certain *volkgeist* spurred a number of literatures in the past? None the less, there is reason to fear that the dominance of English in translations will limit the output of literature by offering most of the world's outstanding literary talents the wrong incentives: too much facility of publication in the home language combined with too little hope of reaching foreign-language readers. Literary output might then become just one more field where the best work is done in English. If so, the production of imaginative prose and poetry in other languages may well be relegated to the same provincial status that such writing has already acquired in some areas of intellectual activity. The damage would know no language barriers.

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TABLE 1

TRANSLATIONS IN THE WORLD, THE UK AND THE US

	1960-64	1965-69	1970-74	1975-79	1980-84	1985-87	1988-96
(1) $\frac{TR}{T} : W$	0.09	0.08	0.08	0.08	0.07	0.07	
(2) $\frac{TR:L}{TR} : W$	0.53	0.49	0.48	0.46	0.50	0.50	
(3) $\frac{TR(E)}{TR} : W$	0.41	0.43	0.47	0.46	0.49	0.52	
(4) $\frac{TR}{T} : UK$	0.026	0.024	0.026	0.037	0.024	0.021 ⁽¹⁾	0.027 ⁽²⁾
(5) $\frac{TR:L}{T:L} : UK$	0.021	0.029	0.033	0.047	0.038	0.037 ⁽¹⁾	0.047 ⁽²⁾
(6) $\frac{TR}{T} : US$	0.066	0.036	0.027	0.018	–	0.030 ⁽³⁾	0.033 ⁽⁴⁾
(7) $\frac{TR:L}{T:L} : US$	0.065	0.087	0.074	0.07			

TR/T = ratio of translations to total titles; TR:L/TR = ratio of translations of general literature to total translations; TR(E)/TR = ratio of translations from English into other languages to total translations; TR:L/T:L = ratio of translations of general literature to total titles of general literature; W = world.

SOURCE: 1980-87 (except where indicated otherwise further below): UNESCO, *Statistical Yearbook*, various issues.

(1) For 1985 alone.

(2) 1988 from UNESCO, *Statistical Yearbook*; 1989 from Allen and Curwen (1991), pp. 46-48; 1990 from Ganne and Minon (1992), pp. 64, 70; 1991-96 from various issues of *The Bookseller*. L or "general literature" always refers to the sum of "fiction," "literature," and "poetry" both in the UNESCO yearbooks and in *The Bookseller*.

(3) 1985 and 1986 average. From Sauvaget (1987).

(4) Average covering only 1988-91 inclusively. From *Publishers Weekly*, various issues.

TABLE 2
SHARES OF THE FOUR MAJOR LANGUAGES
IN THE BOOK MARKET

	1970	1980	1990
English	0.24	0.22	0.17
Russian	0.16	0.13	0.10
German	0.10	0.09	0.10
French	0.07	0.06	0.07
All Four	0.57	0.50	0.44

SOURCE: UNESCO, *Statistical Yearbook*, various issues. The ratios are based on compilations covering all titles for the three particular years.

TABLE 3
TRANSLATIONS IN THE EEC (1991)

	TR	$\frac{\text{TR}}{\text{T}}$	$\frac{\text{TR:L}}{\text{T:L}}$	$\frac{\text{TR(E)}}{\text{TR}}$	$\frac{\text{TR(F)}}{\text{TR}}$	$\frac{\text{TR(G)}}{\text{TR}}$	$\frac{\text{TR(S)}}{\text{TR}}$	$\frac{\text{TR(I)}}{\text{TR}}$	$\frac{\text{TR(SL)}}{\text{TR}}$	etc.
Belgium	703	0.10	0.07	0.54	0.09	0.16	0.04	0.07	0.01	0.09
Denmark	2336	0.20	0.76	0.66	0.06	0.09	0.01	0.01	≈0	0.17
France	6991	0.18	0.34	0.56	–	0.13	0.04	0.05	0.05	0.17
Germany	9557	0.14	0.34	0.66	0.12	–	0.12	0.04	0.04	0.02
Greece	1667	0.36	0.37	0.57	0.13	–	–	–	–	–
Ireland	16	0.03	–	–	0.44	0.12	–	0.12	–	–
Italy	10487	0.26	0.48	0.51	0.16	0.13	0.03	–	0.02	0.15
Neth'ds	4287	0.27	0.58	0.69	0.07	0.16	0.01	0.02	≈0	0.07
Portugal	2806	0.44	–	0.41	0.26	0.03	0.06	0.06	0.01	0.17
Spain	10542	0.24	0.38	0.52	0.16	0.09	–	0.07	0.02	0.14
UK	1689	0.03	0.04	–	0.26	0.02	0.06	0.07	0.08	0.51
EC		0.17	0.32	0.6	0.14	0.10	0.03	0.04	–	0.09

TR(E) = Translations from English within the country in question; TR(F) = Translations from French instead; TR(G) from German; TR(S) from Spanish; TR(I) from Italian; TR(SL) from a Slavic language; etc.: all the rest.

SOURCE: BIPE conseil (1993). The same source presents a TR/T ratio of 0.61 for Sweden in 1991.

TABLE 4
SHARES OF CINEMA ATTENDANCE (percentages)

	EU		FRANCE		GERMANY		ITALY		SPAIN		UK		US	JAPAN
	Home	US	Home	US	Home	US	Home	US	Home	US	Home	US	Foreign language	Home
1985	30	53	45	39	23	59	32	49	16	59	14	84	2.3	51
1986	28	57	44	43	22	63	32	51	12	65	12	86	6.4	50
1987	24	56	36	44	17	58	34	48	14	58	10	79	1.7	48
1988	25	60	39	46	23	64	29	57	11	64	15	77	1.2	50
1989	19	67	34	56	17	66	22	63	7	71	10	84	2.0	47
1990	20	70	38	56	10	84	21	70	10	73	7	89	1.4	41
1991	17	73	31	58	14 ⁽¹⁾	80	27	59	11	69	6	93	1.6	42
1992	17	73	35	58	10	83	24	59	9	77	4	86	1.3	45
1993	15	75	35	57	7	88	17	70	8.5	76	5	87	–	36
1994	15	74	28	61	10	82	24	61	7	72	11	86	0.75	40
1995			35	54	9	84			12	72			0.7 ⁽²⁾	37

SOURCE: Centre National de la Cinématographie (1996), "Bilan 1995," *CNC Info*, n° 261, May 1996.

(1) Prior to 1991, RFA only; since then all of Germany. (2) For this one statistic, the source is IDATE (1997).