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**50 years of economics in language policy
Critical assessment and priorities**

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Comments are welcome

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1. Introduction.....	2
2. Towards a mental map of language economics.....	4
3. Interdisciplinarity, relevance, and LPP (language policy and planning)	11
4. Does language economics do any good to the language disciplines?	15
5. Priorities	19
References.....	22

1. Introduction

Economists have had an interest in language issues for a long time, and examples of economic discourse on the evolution of language can be traced back all the way to Adam Smith, in particular in his essay on the Formation of Languages, one of the popular topics of his time. Dascal (n.d.) observes that Adam Smith must have considered this work important, since he included it as an appendix to his *Theory of Moral Sentiments*.

Let us observe that Adam Smith’s questions focused on the nature and structure of language itself; his is a perspective that marks the beginnings of an important line of research in what later became “language economics”, heralding the work of Jacob Marschak (1965) and, more recently, Ariel Rubinstein (2000). However, this emphasis on language (as opposed to *languages*) has remained peripheral to language economics – itself a rather peripheral field of specialization often sitting astride disciplinary divides. It can be interpreted in terms of the now classic distinction, proposed by Heinz Kloss (1969) for language policy and planning, between “corpus planning” (which targets a language itself, including writing systems, spelling, and terminology) and “status planning” (which concerns the position of a language *vis-à-vis* one or more other language(s))¹. As we shall see, most of language economics is, in fact, “economics of languages” (in the plural) – even if I, just like many others, keep using the common label of “language economics”, with the word “language” used in the singular. Nevertheless, most of the

¹ Cooper (1989) considers a third class of language policy, namely, “acquisition planning”, which is centered on the teaching and learning of languages. For the purposes of this paper, and in line with most of the literature in the economics of language policy, we consider acquisition planning to be part of status planning.

corresponding body of research, (which Björn Jernudd may have been the first to refer to as a “discipline” in a book review published in 2012), actually studies questions that arise because of the presence of *more* than one language, and this is the focus of the rest of this article as well. This very basic observation will help us structure the first part of this paper (Section 2), which is devoted to an account of the progressive development of language economics, with the ambition to propose a “mental map” of the field.

The essentially spatial metaphor of the “map” will also stand us in good stead when turning to the second goal of this paper, namely, to examine the positioning of language economics with respect to the broad, essentially interdisciplinary enterprise of better understanding “language-in-society” (or, perhaps even more to the point, “languages-in-society”, where the hyphenation, used by the famous sociolinguist Joshua Fishman, serves to highlight the distinction from structural linguistics). The metaphor of the map paves the way for the use of another, namely, that of the bridge: I shall attempt to demonstrate, in Section 3, that language economics fully comes into its own when it throws bridges between disciplines. The disciplines concerned are not just economics and sociolinguistics, but also other specialties in the language sciences (from structural linguistics to translation studies), sociology, political science, psychology, the education sciences, geography, international relations, law and communication studies. Language economics also provides an excellent testing ground of the broader relevance of mainstream economics.

The discipline of economics often stands accused of irrelevance, ideological bias, and imperialism. These accusations, sometimes excessive and/or ill-informed, are not completely extraneous, and some mainstream economists, because they hardly ever bother to peek over their disciplinary hedge, sometimes fail to realize that if economics is to be held in higher esteem by scholars from other disciplines, mere reassertions of the scientific superiority of economics by leading members of the profession² are just not good enough. Economics has to prove its worth to practitioners of other disciplines and in order to do so, applications to language provide a particularly challenging relevance test. The reason is that language – and

² Consider for example the opening sentence of the abstract of a paper by Lazear (2000: 99) claiming that “economics is not only a social science, it is a genuine science”. This reveals surprisingly inadequate understanding of whole tracts of research in “social science” (that concept remaining, incidentally, conveniently undefined). In an earlier paper modestly entitled “Culture and Language”, the same author presents among major findings notions such as “individuals from minority groups are more likely to adopt the culture and language of the majority when the minority group accounts for a small proportion of the total population. The incentives are far greater for any individual to learn the majority language when only a few persons in the country speak his or her minority language” (Lazear, 1995: 39), or “it is less likely that the majority will learn a minority language than that a minority will learn the majority language” (*ibid.*: 40). Add to this that the paper does not reveal strikingly sophisticated insights in the conceptualization of “culture” or “language”, and it is little wonder that economists’ work about language is not always taken seriously by language specialists.

languages – cannot easily be formatted so as to fit into economic modelling. For the economics of languages to make sense, we need a well-grounded sense of what language is, so that its operationalization as a variable in economic modelling does not relegate economic propositions to triviality or irrelevance. Such knowledge, in turn, allows economists to make valuable contributions to the selection, design and evaluation of language policies. After showing in Section 3 that economics needs other disciplines in order to talk about language, I turn, in a somewhat shorter section (Section 4), to the symmetrical question, and try to show that the language disciplines often also need economics.

At this stage of its development, the specialization of language economics, therefore, is in a relatively favourable position. The questions are scientifically stimulating, and, in an age of globalization, increasingly recognized as politically crucial. Moreover, language economics, thanks to its greater interdisciplinary openness than its “cousin” specialization of “cultural economics” (e.g. Towse and Khakee, 1992), offers a springboard into a host of related questions, which range from migrant integration to minority rights. These can be seen as opportunities to be seized. In the concluding section of this paper, I discuss the conditions to be met for such developments to be feasible.

2. Towards a mental map of language economics

A little over 20 years ago, I first tried my hand at producing a general overview of language economics, trying to collect all the papers I could in the field.

It was not the first survey in language economics, however, since Vaillancourt had published one seven years before as the opening chapter of his pioneering volume entitled *Économie et langue* (Vaillancourt, 1985a). However, Vaillancourt’s survey was strongly oriented towards Canadian studies. This implied a – perfectly reasonable – emphasis on the effect of linguistic attributes on labor income, or more generally, on analyses in which language served to understand, or explain, economic outcomes. This general orientation did, in fact, characterize practically every contribution (save one) in that volume, since even the chapters with a focus on policy (such as Boucher, 1985; Vaillancourt, 1985b) examined the economic impact of Québec’s language policy. The one exception in this collection was the contribution by Carr (1985), where the dependent variable was language learning in a bilingual society.

The turn of the 1990s, however, seemed like a good time to reassess language economics, in view of several developments. Just as the growth of language economics in Canada, particularly Québec, undoubtedly was “a product of the times” (Grenier & Zhang, forthcoming: 3), and in particular of the robust language policy implementation taking place there, renewed interest in language economics, in the

early 1990s, was certainly influenced by events at large. With hindsight, three contextual elements stand out:

- first, the fall of the Berlin wall, which is generally regarded as a defining moment in contemporary geopolitics, must have played a role in the development of language economics as well: long-suppressed expressions of minority identity (along with the associated languages) regained visibility, prompting interest for the conditions under which these languages might be revitalized and claim a space of their own in a multilingual world.³ This has resulted in the (re)appearance, in quick succession, of numerous states as subjects of international law, with the associated official or titular languages: in the former USSR, this concerns Estonian, Latvian, Lithuanian, Byelorussian, Moldovan, Georgian, Armenian, Azeri, Turkmen, Uzbek, Kazakh, Tajik, and Kyrgyz; in the former Yugoslavia, Slovene, Croatian, Bosnian, Macedonian and (more recently) Montenegrin; of these, five (Estonian, Latvian, Lithuanian, Slovene and Croatian) have become, at the time of writing, official languages of the European Union. Concomitantly, Western European minority languages like Catalan and Welsh (of which there already was more awareness in the general public) no longer looked like quaint oddities, but were increasingly recognized as relevant components of diversity; the cost-effectiveness of language policies which were designed against this backdrop became a respectable, if marginal, topic;
- second, technical progress in telecommunications and the associated decline in the cost of maintaining contact with far-flung corners of the world implied that migration no longer carried, for migrant populations, a sense of irreversibility and disconnection from their heritage language and culture. This has given a whole new meaning to linguistic diversity in Western (immigration) countries, with the successive rise (followed by partial eclipse), in the public debate, of notions like “multiculturalism”, then “integration” (of migrants) and, currently, “mobility”.⁴ Issues such as migrant language skills, whether as determinants of earnings or as variables potentially influencing international trade flows, as well as “ethnic business”, received more attention;
- third, the wide range of processes commonly referred to as “globalization”, tendentially lowering barriers to trade, and the attendant increase in the share of traded goods and services in GDP, was beginning to have a dual effect on language: on the one hand, it accelerated the spread of a “language of wider communication” (English); on the other hand, by increasing the frequency of interpersonal encounters across linguistic and cultural divides, it

³ Or, to use the term favored by sociolinguists quoting the French sociologist Pierre Bourdieu (1982), “on the linguistic market”.

⁴ On the evolving shape of linguistic diversity, see e.g. Krauss (2008, 2012) or Grin (2013).

brought the ubiquity of linguistic diversity in sharper relief (and for greater numbers) than ever before in human history.

Taken together, these momentous shifts result in an increase in *subjective* diversity, that is, the diversity we experience as social, political, and economic actors (Grin, 2003: 2-3). These shifts, already identified in specialist scholarship (Fishman, 1989), began to receive wider and more explicit acknowledgement at the turn of the 1990s. Since then, they have kept influencing the growth of language economics, but it is probably no accident that language economics also began to branch out into a variety of directions around that time:

- we can observe a sustained development of US studies on the role of ethnicity (that is, a person's L1) and proficiency in English (generally, a person's L2) on earnings (Chiswick, 1991; Chiswick & Miller, 1995);
- some work began to appear (using a Beckerian household production function approach) on the economic modelling of language use by bilinguals, in both static and dynamic versions (Grin, 1992);
- the foregoing dovetailed with renewed interest for practical endeavors of minority language promotion, including their possible linkages with the regional economy (Ó Cinnéide & Keane, 1988);
- at the same time, connections with rational choice approaches to language policy (Pool, 1991a, 1991b) were becoming manifest, and the commonality of topics across a wider range of contributions more evident;

I would therefore argue that the idea, in the early 1990s, to survey publications in language economics and reassess it in an integrating perspective reflected contemporary evolutions.

Integrating new research developments into a broader view of language economics also invited reflection on the very definition of the field, since available definitions of language economics generally remained derivative. In line with Jacob Viner (1892-1970), who is said to have described economics as “what economists do” (quoted by Becker, 1976: 4), Vaillancourt (1985a: 13) implicitly defines language economics as “the set of texts written by economists on language questions”.⁵ My 1992 survey, therefore, proposed a new definition of language economics which cast the net relatively wide. This definition (which will be critically discussed in a moment), was later re-used in other surveys of language economics (Grin, 1996, 2003; Grin & Vaillancourt, 1997, 2012; Grenier & Zhang, forthcoming). The survey itself included 68 papers, with a five-line summary for each and a four-way characterization combining two criteria: a paper could be mainly geared towards explaining an economic or a linguistic variable, and it could be either “mainly empirical” or “mainly theoretical”. My estimate was that this amounted to about 80% of the

⁵ In the original: “l'ensemble des textes d'économistes portant sur des questions linguistiques” (my translation).

literature available at the time, not including some descriptive case studies and reports on the economic context of use of given languages, meaning that the total body of literature would have been in the region of 80 to 90 publications.

How things have changed since then. My admittedly very rough estimate of the number of published pieces available now is in the region of 360, including a 10% allowance for omissions. To reach this total, I have started out from the stock of papers and books I have accumulated over the years, and added titles quoted in other papers, especially recent survey papers or similar sources; I am, in particular, indebted to Grenier and Zhang (forthcoming), and Wickström (2012) as sources of titles I did not know about. Moving from the early 1990s estimate (let us use 85 as a mid-point) to 360 today represents an at least fourfold increase in twenty years. Of course, much depends on the criteria applied: should every single entry in edited, review-type volumes like Breton (1998, 1999) or Lamberton (2002) be counted separately, or should the whole volume count as one entry? How far do we cast the net, and do we include well-known papers from business administration (e.g. Marschan-Piekkari *et al.*, 1999) or political theory (e.g. van Parijs, 2000) when they examine questions that clearly pertain to language economics? In any event, this figure of 360 must be taken as a very rough approximation, probably erring on the side of caution. Nevertheless, even leaving out most of the numerous research reports (often mainly descriptive in nature) reporting the results of surveys on patterns of language use in international business, the growth has been substantial, with the published literature gaining over a dozen papers a year on average; let us bear in mind that contrary to other specializations of the “economics-of” type (such as the economics of education, health, environment, or even culture), the economics of language has never been received the backing of academic institutions. In particular, I am not aware of a single university chair anywhere in the world (let alone an institute or department) devoted to language economics. This growth is all the more remarkable for having been achieved without any real support.

I do not intend to review this abundant literature here, since this has been done for much of it before.⁶ Rather, my goal now is to turn to the two following tasks: I would first like to re-examine the definition of “language economics” used here, and second, use it to draw a mental map of the literature as it appears before us today. The definition I am using today (Grin & Vaillancourt, 2012: 1) has remained basically unchanged for twenty years:

“language economics refers to the paradigm of mainstream theoretical economics and uses the concepts and tools of economics in the study of relationships featuring linguistic variables. It focuses principally, but not exclusively, on those relationships in which economic variables also play a part”.

⁶ However, I believe it would be worthwhile to produce a “reasoned catalog” of the literature, aiming if not at exhaustiveness, then at least at covering between 80% and 90% of it.

Since this definition is commented at length in the survey papers mentioned above, let me simply highlight its core idea: in line with Lionel Robbins's (1932) classic definition of economics and with its interpretation by Becker (1976), it rests on the notion that economics is about how we deal with scarcity, whether in allocative or distributive perspective. The nature of the scarce resources and of the ends pursued is radically open, allowing market and non-market (or "symbolic") effects to be taken into account. It is this wide scope which has allowed for the application of economics to a host of questions, including some that were traditionally studied in the perspective of other disciplines in the social sciences. This definition also allows for a crucial analytical distinction between approaches where the main dependant variable is economic (while the independent variables include something linguistic), and those where the main dependent variable is linguistic (and the independent variables *generally* include something economic).

Surprisingly few authors in language economics take the trouble to define the specialization; even in books with a title such as "Economics of Language" (Lamberton, 2002) or "Economics and Language" (Chiswick & Miller, 2007), no formal definition is offered. In the former case, language economics is, in the main, equated with writings by economists about language, with an unstated assumption running through much of the volume that language amounts to communication. In the latter, it is assumed to be co-terminous with the econometric study of the effect of immigrants' language skills on labor income and of the treatment of endogeneity in this relationship (all the other facets of language economics, however, are completely ignored).

Grenier and Zhang (forthcoming), however, hold that this definition does not adequately account for economic work on the structure of language, in particular recent developments of this topic that use game theory (e.g. Glazer and Rubinstein, 2006), whereas I would think that this latter line of work fits comfortably in the big family of "relationships featuring linguistic variables", as soon as these relationships are studied with the concepts and tools of mainstream theoretical economics.

We can conceptualize the field of language economics as a set of relationships between linguistic ($\{L\}$), economic ($\{E\}$) and other ($\{X\}$) classes of variables (e.g. Grin, 1996: 6), in particular three sets of relationships, to which most of the contributions in the specialty can be assigned. Some contributions in language economics primarily examine the effect of linguistic on economic variables ($\{L\} \rightarrow \{E\}$), other contributions focus on the reverse type of connection ($\{E\} \rightarrow \{L\}$), and a third group, without necessarily invoking traditionally economic variables, uses economics as an analytical framework in the study of the evolution of linguistic variables; let us denote this latter range of relationships with the expression ($\{X\} \rightarrow \{L\} | E$).

However, I would like to suggest a new representation focused on topics in language economics. In what follows, I propose structuring the field in some 90 "nodes". This

may sound like a very high number, but this figure is generated by a tree structure that includes not only “final” nodes (that is, those that it would not make much sense to break up more finely), but also the branches to which they belong.

Obviously, we may choose to have fewer topics or more, accordingly generating a greater or smaller number of nodes, depending on how specific we want these topics to be. The main criteria applied to determine a sensible degree of detail were: (i) whether or not a set of papers, both assigned to a node N , could sensibly be seen as addressing the same question (for example: “the estimation of the rates of return to skills in *foreign* languages, that is, languages that are not a majority, minority, national or official language in a given country”); (ii) whether the papers considered drew, at least in part, on similar models, concepts, and references in literature.

Applying these admittedly informal criteria, I gravitated towards a number of “final” nodes of around fifty, meaning that some 40 nodes denote broader topics encompassing the 50 lower-order, more finely-defined ones. Each node includes at least one paper (whether a scientific journal article, a chapter in an edited volume, a research report, or a full-length monograph); most nodes include more than one contribution; all the contributions I could find can be fitted into a node.

The mental map (Fig. 1) and the symbols used in it are provided in the appendix. Essential comments only are provided in this paper.

As shown in this figure, the literature in language economics branches out in three categories: apart from survey papers (symbolized by the isolated node in turquoise on the left of the figure), we can identify a research direction covering economic perspectives on language corpus (symbolized by the isolated node in red at the top of the figure). Most of language economics falls into an analysis of language status (in terms of the distinction made in the introduction), and it can, in accordance with the definition used here, be subdivided into two main branches: research whose main focus is on explaining economic variables, as they are co-determined by linguistic processes; and, reciprocally, research that examines the reverse causal direction, namely, the influence of economic processes on linguistic variables, where the “economics” may mainly reside in the independent variables, in the nature of the causal links connecting independent with dependent variables, or both.

Within these two directions, I suggest, for the purposes of building this mental map, making a distinction between two groups of papers in accordance with their main emphasis:

- on the one hand, some contributions are mainly concerned with uncovering *unregulated* processes, in the sense that their focus is on agents’ behavior *independently* of policy intervention. There may be no formal policy in place,

- or if there is one, it is merely an element of context.⁷ For example, we might be interested in the rates of return on the investment in learning Mandarin on the German labor market (knowing that Mandarin is not a compulsory part of the usual, state-mandated curriculum in any of the German *Länder*);
- on the other hand, other contributions focus on the economic implications of language policies. For example, one might study the expected impact, on Germany's youth unemployment rates or foreign trade patterns, of introducing the obligatory learning of Mandarin Chinese in German schools.

The above examples concern the $\{L\} \rightarrow \{E\}$ causal direction; examples illustrating the same analytical distinction can be found for the reverse, $\{E\} \rightarrow \{L\}$ (or quasi-reverse $\{X\} \rightarrow \{L\}_E$) causal directions:

- on the one hand, some work examines the role of economic variables, or economic processes, *or other processes approached through the prism of economic analysis*, in determining the value of linguistic variables. For example, an increase in income may affect the way in which bilingual agents apportion their time between activities carried out in language *X* and language *Y*, independently of any language policy regulating the use of *X* and *Y*;
- on the other hand, some work focuses on the linguistic effects of regulation through language policy and planning. Not only may this regulation rely on the role of economic variables (for example, when subsidies are put in place to encourage the consumption of *X*-language goods and services such as *X*-language books and films); but any regulation, even if it does not specifically operate through economic variables, is susceptible of language policy evaluation in terms of resource allocation and resource distribution. For example, certain language learning targets may be achieved more or less efficiently, depending on the pedagogical approach used (e.g., traditional language instruction v. bilingual education).

In both branches, the “regulated” questions, taken together, constitute the *economics of language policy*, and the corresponding areas of the mental map are shaded.

The parsing approach of this mental map probably overstates the distinction between the $\{L\} \rightarrow \{E\}$ and $\{E\} \rightarrow \{L\}$ directions, which sometimes blend into each other, a point which goes beyond the trivial observation that there is no such thing as “no language policy”. For example, one approach to the cost-effectiveness evaluation of protection and promotion of regional or minority languages (RMLs) (Grin and Vaillancourt 1999) is based on a microeconomic model of language use by

⁷ In fact, there is no such thing as “no language policy”, to the extent that wherever there is a state, some language policy decisions are made regarding the language(s) of institutional deliberation, administration and justice.

bilinguals, but combines it with an identification of the costs (that is, the economic implications) of using policy *A* or policy *B* to encourage this use.

The mental map also features two areas which are located at the fringes of language economics and are also difficult to assign to either an $\{L\} \rightarrow \{E\}$ or an $\{E\} \rightarrow \{L\}$ (or $\{X\} \rightarrow \{L\}_{|E}$) direction:

- one of them, bearing the label “multilingual firms”, brings together contributions from management and the communication sciences. They look at communication practices within multilingual firms, and their object is communication (either *per se* or as a dimension of the smooth operation of a company). Their observations on communication in multilingual context can further our understanding of either direction and therefore could not comfortably be assigned to one more than another;
- the second, with the label “surveys”, is intended to accommodate the numerous (and mostly descriptive) surveys carried out over the past decades in a number of countries. Let us point out that data collection *also* takes place in many of the other categories presented in this mental map; this isolated “surveys” box, however, hosts mainly descriptive surveys, which tend to rest on very little in the way of preliminary conceptual or theoretical elaboration – typically, a rather general assumption backs them up, to the effect that “languages are important for business”; however, the nature of the links that presumably connect them is not spelled out, let alone quantified (see Grin, Sfreddo & Vaillancourt, 2010: 39-50, for a discussion⁸). At the same time, some of them contain information that is relevant to either the $\{L\} \rightarrow \{E\}$ or the $\{E\} \rightarrow \{L\}$ direction.

3. Interdisciplinarity, relevance, and LPP (language policy and planning)

One of the reasons that makes language economics stimulating is the constant interplay with other disciplines. This observation suggests that language economics has much to gain from interdisciplinarity – probably more so than other, more mainstream specializations in economics. In fact, I submit that interdisciplinarity is a *condition* for relevance in language economics.

This situation has to do with the object to which analysis is applied, namely, language or languages. Consider, by contrast, standard mainstream questions in general micro or macro-economics, or in more specific areas such as labor economics, or international payments and finance. These are topics about which economics has much to say – and certainly more than *other* disciplines do – without seriously needing to import concepts and methods from other disciplines. True, recent

⁸ This discussion also contains a critique of some often-quoted studies which, notwithstanding their high visibility, present a number of serious methodological shortcomings.

developments in various branches of economics are characterized by an increasing cooperation with psychology and the neurosciences, opening exciting developments in behavioral economics. Importing knowledge from other disciplines is always an enrichment. However, what is an enrichment in some specializations is closer to a necessity in language economics, because “language” does not lend itself easily to the demands of modelling (remember that in this paper, we are focusing on languages in the plural, rather than on the internal structures of language). At a very early stage in the development of any language economics analysis, we are confronted with two problems.

First, what do we mean by “language”? Even if we place ourselves in the context of *multi-lingualism* (that is, considering questions that arise because of the presence of language X *and* language Y, and possibly language Z as well), we still need a concept of language applicable to X, Y and Z, in order to be able to treat them as variables. Economists do not necessarily have to reinvent the wheel and come up with a brand new definition of language – they can borrow a definition from linguists. However, they need to be aware that definitions are contested (see e.g. Crystal, 1987: 396). Moreover, beneath their apparently straightforward character, they harbor a considerable depth of elaboration. Quick and dirty, informal definitions will only take us so far. This can be exemplified in a number of ways. One concerns the classical (but also contested) distinction, introduced by the famous linguist Ferdinand de Saussure (1857-1913) between “*langue*” (language) and *parole* (“speech”). The former is defined as a “means of communication used by human or animal communities. Among humans, the capacity for speech is realized in languages”⁹ (Gadet, 1990: 126); the latter is defined as a “system of signification used by a language community, in particular for communication”.¹⁰ This contrast between “language-as-speech” and “language-as-one language-among-others” is easier to formulate in French, which makes a distinction between “*langue*”, “*langage*” and “*parole*”. It converges with the corpus-status distinction introduced earlier, but it is, according to Mounin (1972: 50-51), only one of three structuring dichotomies in Saussure’s approach to language.¹¹

This first problem generalises to other facets of the study of language, which shows that language, because it is embedded in various levels of human experience while also contributing to shaping this experience, is difficult to fit – some would say

⁹ Gadet (1990: 126, my translation). The original is: “*moyen de communication utilisé par les communautés humaines ou animales. Chez les humains, la faculté de langage se réalise dans les langues*”.

¹⁰ Gadet (1990: 126, my translation). The original is: “*système de signification utilisé par une communauté linguistique, notamment à des fins de communication*”.

¹¹ The other two are between (i) social institutions in general, and semiology in particular, the latter being considered the product of social systems, where the sign system (studied by semiology) shares features with other social institutions, but presents some specific features as well; and (ii) semiology and language (understood here not as speech, but as a specific instantiation), where language is susceptible of study from the angle of just about any discipline.

“shoehorn” – into pure, unadulterated mainstream economic analysis¹². The levels concerned include not just the narrowly linguistic (in the sense of morphology, syntax, phonology, and the associated writing system, where applicable¹³), but also the anthropological, the cultural, the social, the political, the economic. It is positioned in space (geography) and time (history). Consequently, there is always a significant risk, when making any utterance about language, of omitting a relevant dimension. This becomes problematic if the omission leads us down the path of a flawed analysis. In fact, the problem is not completely different from one familiar to economists, namely, that of unobserved variables, whose neglect may lead the analyst to identify correlations that are in fact spurious. Simplification is a legitimate part of any scientific endeavor. Not all complexity is relevant, or relevant to any investigation. For example, one may nurture serious doubts about currently fashionable work in sociolinguistics, which goes as far as to question the very notion that “named” languages (such as “English”, “French”, “Japanese”, “Xhosa”, “Cherokee” or “Guarani”) arguing that a once we take stock of the complexity of language, separate languages are almost impossible to circumscribe, and we are left with nothing but communication.¹⁴ However, to quote a piece of wisdom commonly attributed to Albert Einstein, the secret is to “make everything as simple as possible, but not simpler”. The general idea that the real world is complex and that this complexity cannot always be assumed away is of course well established in economics. For example, Troeger (2012: 1), in her discussion of the proper extent of simplification in the study of capital mobility, notes that “the decision [made regarding] capital taxation also cannot be analyzed in isolation from the distributive effects of reducing taxes on mobile factors”. In language economics, the conceptual and empirical knowledge required in order *not* to analyze some issue or other “in isolation from” relevant aspects of the problem usually comes from *outside* economics. Ignoring this principle exposes the analyst to irrelevance, and assumptions not uncommonly made in language economics, such as equating language with oral or written communication, and communication with information transfer, are woefully, at times almost preposterously inadequate.

Second, even if we have a balanced definition of language, that is, one that is sufficiently deep to be relevant and sufficiently synthetic to be manageable, operationalization raises daunting problems. This problem arises at two levels:

- first, if we are going to *model* a process involving language (whether in the perspective of an $\{L\} \rightarrow \{E\}$, $\{E\} \rightarrow \{L\}$ or $\{X\} \rightarrow \{L\} | E$ question), we need to give “language” the shape of a variable that can be projected onto a quantitative scale. This projection can be cardinal (e.g.: native speakers of X make up $g_x\%$ of the population while native speakers of Y make up $g_y\%$) or ordinal (e.g.:

¹² For a critical discussion of theoretical purity in economic analysis, see e.g. Mayer (1993).

¹³ Many small languages are still unwritten, or have developed a written form very recently.

¹⁴ This line of reasoning is currently (2013) fashionable in some segments of sociolinguistics and applied linguistics. For a crisp and entertaining critique, see e.g. Edwards (2012).

various foreign languages are taught as subjects in the curriculum of public schools in a given order over successive school years, and the teaching of language R begins before the teaching of language S). It is sometimes enough to operate with a simple dichotomous variable (e.g., language Z is or is not required in the legislation on the labelling of goods, and consequently, Z is or is not present on boxes, wrappings, and the like). But in any case, we need to be able to say if there is “more” or “less” of a language-related variable or, at least, if there is “presence” or “absence”. This is easier said than done, and doing it often requires unsatisfactory simplifications. For example, the claim that the adoption of a company language (say, English) in some multinational corporation will result in “English being used” in its internal operations obscures a reality well-known by sociolinguists, namely, that *actual* communication practices (including clearly work-related ones, well beyond office gossip around the coffee machine) remain highly multilingual, with constant use of code-switching; it is only written (and relatively formal) communication that really regroups around English.

- second, we need reasonable units of measurement for the variables selected, and these are surprisingly elusive. What does it mean, for example, to be a “bilingual”? Specialists can adhere to radically opposing views, ranging from a very demanding definition of “native-like command of two languages” (due to Leonard Bloomfield, 1887-1949) to rather lax ones, like the mere presence of some second-language skills (proposed by John Macnamara, 1929-1996) (Hamers and Blanc, 2000: 6), and the standard way out of this quandary, which invokes a “functional” notion of bilingualism (that is, a person is bilingual if he or she can function adequately in two languages, taking account of what he or she wants to achieve), may sound more like an evasion than a definition. The measurement of many basic concepts that are crucially important to a wide range of analyses (such as a person’s level of skill in a language or the identification of a “speech community”) raise thorny definitional and methodological problems).

For some questions in language economics, an acceptable balance between realistic complexity and synthetic simplification is not too difficult to find. For example, the abundant publications on the rates of return to foreign or second language skills have gone through three successive phases: after first highlighting language as an L1, thus emphasising its function as a carrier of identity, and later on language as an L2, thus focusing on the fact that it is part of a person’s human capital, they now consider both functions simultaneously (Vaillancourt, 1996). The first variable can be operationalized through a person’s self-assignment to a mother tongue (although this can turn out to be surprisingly complex too); for the second, survey participants can be asked to list the languages in which they possesses skills matching pre-defined levels reflected in “descriptors”, as laid down in the *Common European Framework of Reference for Languages* – but then again, questions arise: shall we take account of the five types of foreign language skills identified by the *Framework*,

or of some of them only? In either case, should all the skills considered be given a symmetrical weight or not?).

Our first observation, therefore, is that caution is indispensable in language economics, and that this requires, in actual research work, taking account of what other disciplines have to say. This has been referred to in the introduction as the (general) need for interdisciplinary bridge-building. At this point, the additional link-up with language policy, announced in this paper's title, becomes essential: it is the very effort to apply language economics to language policy and planning (LPP) that provides a form of reality check, which knowledge from other disciplines helps to administer, and which requires connections, or bridges, to be established between distinct disciplinary traditions and different bodies of research.

Almost any real-world language policy problem can serve to illustrate this point. Consider for example the extent to which English ought to be used in teaching at publicly financed universities in non-English-speaking countries. To the extent that we can operationalize this variable in terms of the percentage l of lectures taught through the medium of English in, say, German universities, what are the relevant determinants of the optimal percentage l^* ? Does it even make sense to look for *one* general optimal level? Obviously, the proper handling of the problem requires mobilizing analytical concepts and empirical knowledge developed in sociolinguistics, political science, history and sociology.¹⁵

4. Does language economics do any good to the language disciplines?

In the preceding section, I have tried to explain why language economics – if it aims to have relevance beyond purely self-referential discourse – needs other disciplines, and why it benefits from its application to LPP. In this section, I turn to the symmetrical question: do the language disciplines need an economic perspective, and does LPP benefit from economists' contributions? To both questions, my answer will be an unambiguous “yes”.

There are many ways in which economics helps. At a general level, they are well-known to economists, and usually hinge on two aspects: the first is the intrinsic relevance of economic variables and processes to most aspects of human experience and some, in line with Becker (1976), would claim that this applies to all of them. The second is the fact that the fundamentally economic approach enshrined in policy

¹⁵ The German Standing Conference of University Rectors (Deutsche Hochschulrektorenkonferenz) addresses this point, in general terms, in a “Recommendation” published in November 2011. See *Empfehlung zur Sprachenpolitik an Deutschen Hochschulen*, <http://www.hrk.de/en/position/gesamtliste-beschluesse/position/convention/empfehlung-sprachenpolitik-an-deutschen-hochschulen/>.

analysis is relevant to decision-making in LPP just as it is in other public policies in areas such as health, transportation or the environment.¹⁶

It is hardly necessary to belabor this point, and for the purposes of this paper, let us simply recall that important language-related questions, whether theoretical or empirical, often with direct policy implications, are better known thanks to economists' input; this is the case, for example, of the substantial body of work on the estimation of private and social rates of return on language skills (discussed in Section 2), or of specific findings peppered all over the mental map presented earlier (Fig. 1), and examples abound: communication costs between business owners and employees *can* suffice to explain the persistence of earnings differentials between workers with different linguistic attributes (Lang, 1986); the explanation of language learning patterns can usefully combine information about the distribution of innate linguistic abilities and monetary language learning costs (Selten and Pool, 1997); the “bilingualization” of an education system carries comparatively modest costs, in the region of 3%-4% of educational expenditure (Patrinos & Velez, 1996); the principle applied by the latter two authors generalizes into a convenient, widely applicable rule for the estimation of the actual (in effect: *marginal*) cost of providing minority-language services when none existed (Vaillancourt & Coche, 2009); linguistic diversity in a developing economy, often blamed (under the label of “fragmentation”) for poor GDP growth rates, turns out to have no effect, or possibly a positive one, when allowance is made for the fact that it can be endogenous (Arcand & Grin, 2013); etc. Although not all these findings are well-known among language or LPP specialists, there is growing awareness of the existence and relevance of an economic perspective.

In the area of language, however, the relevance of an economic perspective presents an additional twist, which has to do with the way in which some sociolinguists have sought to integrate economic (or economic-sounding) knowledge in their work.

Let us first put aside the case of misleading analogies, which arguably rest on a faulty interpretation of the concepts and/or terminology of economics. One such analogy builds on the seductive parallel between “language” and “currency”, which holds that they resemble each other because words are exchanged, “just like” currencies can be traded against one another. Oblivious to the fact that the *nature* of the “exchange” is completely different (the “exchange” of words and sentences in conversation, for example, does not presuppose – as would be the case for market

¹⁶ A further, meta-level justification might be added, by invoking the methodological *habitus* of economists, in particular their proclivity to formal modelling: as the sociologist Brown (1977: 83) once wrote: “a scientific model is a metaphor whose implications have been spelled out”. Putting it differently, the very task of modelling forces the analyst to be quite explicit regarding the *relationships* through which variables, in his model, are assumed to be connected; the correlative weakness of economics has to do with a frequent under-specification of these variables. Modelling usually provides a good internal consistency check (Pool, 1991b). However, methodological rigor, or course, is not the exclusive preserve of economics.

exchange – a converging valuation, by the partners in the exchange, of what is being exchanged), some sociolinguists take the analogy one step further, claiming that exchange rates and language spread are (cor)related: a language a wider communication such as English is then said to be “convertible” just like the US dollar can be traded against another currency, while other national currencies are supposedly not (or less easily) convertible, reflecting the lower status of the language associated with the country that uses the currency concerned. On the strength of such an argument (in which the link to actual convertibility in its usual monetary sense is dubious), it is unclear whether the long-term decline in the external value of the US dollar (and, more recently, of the British pound) should have led us to expect the English language to lose its internationally dominant status, or whether the prosperity of the Norwegian economy should be seen as a forerunner of a rush to learn Norwegian. Basic economics can help sociolinguists assess such analogies with the necessary caution.

More importantly, however, economics can help to give more precise substance to propositions encountered in some strands of the sociolinguistics literature, but which refer to economic processes, either as causes or as consequences, in their account of language learning, skills, or use. While the economic processes alluded to are potentially relevant, the economic variables, if some are mentioned at all, are painted with a very broad brush. Let me take illustrate the foregoing with two examples.

First, there is a growing, and very welcome, surge in interest in the relationships between language skills and language use on the one hand and economic processes on the other hand. This interest has been reflected, particularly in the mid-noughties, in a flurry of qualitative inquiries and quantitative surveys (reviewed in Grin, Sfreddo & Vaillancourt, 2010, Chap. 3). This set of contributions has been mentioned in Section 2 of this paper, and much of it turns up in the “mental map” (Fig. 1), where it is subsumed in the “free-floating” node entitled “Surveys (firm, sector, economy)”. The main reason why this line of work has been treated as free-floating is that it cannot be comfortably assigned to any of the standard nodes that proceed from our analytical parsing of the discipline, symbolized by the arborescence in Fig. 1; and the reason why these contributions cannot be fitted into the arborescence is that it often lacks any discernible analytical angle. Questionnaires are drafted and data collected with, one supposes, essentially descriptive ambitions and when an analytical perspective underpins the survey, it usually rests on little more than a correlational logic: for example, the greater degree of openness of any given company to international markets (usually in terms of sales, since purchases of intermediate goods are typically ignored) is assumed to require more foreign language skills among staff, or a higher frequency of use of foreign languages by staff, or a corresponding expression of needs by management. Usually, no attempt is made to connect the effect of better language skills with some kind of economic outcome, as could be captured by some economic measurement of performance. The reader is assumed to automatically agree with the notion that more extensive

foreign languages skills (or more frequent use of them) will ensure smoother, more effective communication, but the connection is usually not made between more effective communication and variables that might denote economic performance, such as “productivity”, “market share”, “turnover”, “profit”, etc.¹⁷ Thus, many surveys and reports about “language and the economy”, though perceived by some as instances of language economics, are in fact purely descriptive accounts about language and multilingualism *in economic context*, which is a rather different thing. A mainstream economic perspective, therefore, can serve to move beyond the sensible, but rather general notion that language skills (or language use) at work must have some kind of economic causes and consequences. It can help to spell out the economic significance of such connections and, data permitting, to estimate them.

Second, and along quite different lines, some contributions in “critical sociolinguistics” and “critical discourse analysis” examine changes in language variables (such as modalities of use, prestige, etc.) as the result of changing (socio-) economic conditions, often subsumed under the somewhat equivocal label of “new economy”. However, the economic processes alluded to are approached in essentially metaphorical terms, and the economic content turns out to be rather thin. Moreover, this latter line of argument frequently oscillates between economic processes and *discourse* about them. An example of this approach can be found in a book entitled “Language in late capitalism. Pride and profit” (Duchêne & Heller, 2011), whose introductory chapter states that present-day capitalism has “as one of its fundamental characteristics the continual expansion and serial saturation of markets”, and that “we find ourselves now at a particular moment in this process that we can call late capitalism, and that stretches the system of national regulation of markets to and possibly beyond its limits. The resulting tensions in the nation-state regime give rise to new discursive tropes in which language plays a particularly central role not only because of its place in regulation and legitimization of political economic spaces but also because of the emergence of the tertiary sector as a defining element of the globalized new economy” (both quotes from p. 3). This opening promisingly alludes to potentially important questions about the economics of globalization and their linguistic implications. However, no analysis is provided to support the notion that alleged changes in “something linguistic” (e.g. frequency of use of a minority language, or the meaning that agents assign to the use of their native language as opposed to the use of another language) actually *proceed* from changes in economic variables (since none is identified) or reflect economic processes (since none is explicitly spelled out). In general, and despite the repeated use of terms such as “markets” and “profits”, this line of work completely ignores the language economics literature. It offers an (otherwise very stimulating) analysis of some aspects of language from a sociolinguistic angle, but it

¹⁷ Which is why, in a recent book by two colleagues and myself on “the economics of the multilingual workplace”, we note that such a gap needs to be filled, and we revisit the basic microeconomic theory of production, plugging in linguistic variables along the way (Grin, Sfreddo & Vaillancourt, 2010).

offers no economic angle – it simply happens to formulate propositions with reference to a macro-level context that presents some economic features. This is not to say that there are no genuine language economics questions in the background of such contributions, but a fair amount of work remains necessary to bring them to light, and language economics may prove useful to this end.

5. Priorities

In Section 2, I have attempted to describe language economics in an integrated fashion, using an arborescence that enables us to identify and highlight the subset of language economics that is most directly oriented to language policy and planning (LPP). In Section 3, I have explained why language economics needs – more than other subfields in economics – to be interdisciplinary, also suggesting that LPP offers a prime terrain for putting this interdisciplinarity into practice. The message there was that economics generally needs other disciplines in order to say sensible things about language and multilingualism. In Section 4, I have examined a symmetrical question, namely, whether the language disciplines also need economics beyond the obvious usefulness of economics for measurement and calibration in language policy selection, design and evaluation. This shows that economics can guard against seductive, but flawed analogies, and give more substance to the study of phenomena in which some sociolinguistics invokes economic issues, but sometimes with inadequate precision.

In this closing section, I would like to highlight some priorities for the development of language economics in general, and of the economics of language policy in particular. Important language policy questions abound in the real world, and there is no lack of particular cases requiring attention. However, instead of embarking on a somewhat arbitrary (and necessarily incomplete) list of practical cases, I prefer to highlight four more general issues that are likely to find application across different situations in which language policy questions arise.

Language and the creation of market value

The existence of substantial rates of return to foreign language skills bears witness to the fact that, unless we assume the labor market to be fundamentally dysfunctional, they contribute to value creation. However, surprisingly little is known about how this contribution actually comes into existence. Economics, from a fundamental microeconomics or possibly from an industrial organization perspective, is best placed to make progress in our understanding of this process of value creation. This requires, however, a fine-grained understanding of communicational processes, for which very micro, even “nano-level” applied linguistics is useful, at least heuristically. Although reference to “market value” points in the direction of productive work in private-sector firms, the contribution of language skills to efficiency in the public sector also belongs to the same thematic

area. Language education policies, which constitute the largest subset of language policy, need information about the “external effectiveness” of language teaching – what languages to teach to whom and up to what level of oral and/or written fluency for what uses on the labor market. A better understanding of these processes is necessary to obviate one well-known problem in education economics related to the policy implications of external rates of return. What may apply at time t (for example, the fact that possessing certain skills is well rewarded on the labor market) is only a very rough guide for education policies: the effects of changes in the curriculum typically take many years to appear, and what was true at time t may be completely irrelevant at time $t+15$.

The estimation of non-market value

Language policy is ultimately about optimizing, as democratic societies, our linguistic environment (to the extent that this environment can be changed) and about optimizing our response to it (to the extent that it cannot). The choice of language regimes is part of such language policy choices. Such choices obviously raise not just material, but also symbolic questions, a point that the language economics literature has recognized from its beginnings (e.g. Breton, 1964), without, however, paying much attention to it. The symbolic implications of language are undisputed, and any language policy plan ignoring them is likely to be politically unacceptable, and most probably irrelevant. Some effort has been made in recent years, particularly from the standpoint of normative political theory (Robichaud and de Schutter, 2012); from economics, Ginsburgh and Weber (2011) have looked at language regimes in the European Union through the prism of communication, arguing that denying official status to a given language disenfranchises its speakers. The exact nature, workings and import of such disenfranchisement, however, depends on the effects that non-officialization has on language users, and many such effects are likely to belong to symbolic values, which is why van Parijs (2011) stresses the importance of “parity of esteem”.

Unfortunately, almost nothing has ever been done to assess the magnitude of these symbolic values. Almost twenty years ago, I suggested adapting tools from environmental economics, such as contingent valuation, to address the question (Grin, 1994). I still believe that this avenue deserves serious attention in order to provide a more solid base for language policy choices in various areas. For example, in what “domains” (in the sociolinguistic sense), such as advertising, the labelling of goods, the supply of tertiary level education, do members of a given language community *really* want their language to be used, and in what domains does it matter less? What is their willingness-to-pay for a guarantee of reinforced presence of their language in specific domains such as audiovisual media?

Aggregation

A vexing problem that keeps cropping up in the comparative evaluation of language policy scenarios is that of the aggregation of various types of (material and symbolic) benefits and costs. Consider the standard case of the social rates of return to the teaching of language X as a subject in the education system. At time t , competence in X delivers a wage premium P , over and above the equilibrium rate on the labor market. Suppose this constitutes an incentive for more people to invest in the learning of X , such that at time $t+5$, the percentage of the labor supply with X -language skills increases by $\Delta g_x\%$. What is the ensuing impact on the value of X -language skills? The premium may go down because of the increase in supply; at the same time, it may go up because the generalization of X -language skills results in the latter being expected as a matter of course, as is the case nowadays, in most countries of the world, for basic literacy in one's mother tongue. What if the value of language skills is not strictly made up of the wage premium, but is also based on the size of the pool of interlocutors with whom one can use of the language? In fact, several models assume that the value of language skills is *wholly* made up of this pool of potential interlocutors. Handling such questions presumably requires developing a model of a high order of generality, a little like a general equilibrium economic model of optimal societal multilingualism. I am not convinced that we need an all-encompassing model, and it is probably more pragmatic to aim for a collection of mutually compatible sectorial models. However, their compatibility can only benefit from an awareness of the big picture, in which the problems of aggregation have been if not solved, then at least identified.

Complex language policies

As globalization proceeds, language policy selection and design is becoming increasingly complex. In the 1960s and the 1970s – that is, in the early days of language policy identified as such – many issues could be approached relatively independently from each other. For example, autochthonous minority language protection, the linguistic aspects of immigrants' integration, the choice of official languages in a multilingual country, the adoption of a language regime for the internal operations of some international organization, the selection of languages offered as subjects in an education system could reasonably be approached as separate questions. Nowadays, increased mobility, particularly for labor, requires joint consideration of many of these questions.

Unsurprisingly, more complex problems tend to call for more complex solutions. Complex solutions, at this time, have received very little attention. Optimizing, and responding to, a plural linguistic environment usually elicits recommendations such as “multilingualism across society through the development of individual multilingualism”, “widespread multilingualism resting on the generalized provision of translation and interpreting” or “adoption of a *lingua franca*” – advocates of this latter solution usually meaning English. However, this does not exhaust the range

of possible solutions. The *lingua franca* might be a planned language like Esperanto. And the spread of *intercomprehension* (receptive skills in languages structurally related to one's mother tongue) could substantially alter the range and contents of policy scenarios. More fundamentally, complex language policies presumably require not opting for one or another strategy, but combining them. Optimal policy responses to the challenge of multilingualism, in the real world, may well call for the use of a *lingua franca* in some contexts, for the development of intercomprehensive skills in others, for well-designed forms of PSIT (public service interpreting and translation) in others still; all this against the backdrop of widespread (but often informal) individual bi- or trilingualism. Depending on time and place, the quest for optimality would call for one or another strategy to take center stage. An optimal language policy, however, needs to pitch the search for efficiency at a higher, meta-level. Although this is, at heart, a classical problem of welfare theory, addressing it in language policy and planning is an enterprise that still has not been attempted seriously.

The economics of language policy and planning has progressed significantly since it first began to emerge as such about fifty years ago. It is now an exciting field of study with a healthy openness to interdisciplinarity. Examples of its social and political relevance are not hard to find, and the range of research questions waiting to be investigated is substantial. All that is needed now is more recognition, in order to secure the financial and institutional support needed for this research to take place.

Where then should this support come from? Experience suggests that it need not come primarily from within the discipline, even if more consideration would be nice – as is the case, for example, in environmental, health, transport or education economics. But as we have seen, the very nature of the core object (language) restricts the extent to which this can actually happen. Moreover, economics departments in universities throughout the world have a notoriously poor record when it comes to embracing and sustaining interdisciplinarity. For all these reasons, I believe that the cause of language economics, as well as its application to actual language policy problems, would be best served if financial and institutional support came directly from central university authorities and research funding agencies with a genuine interest in interdisciplinarity.

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