From Linguistic Events and Restricted Languages to Registers.
Firthian legacy and Corpus Linguistics[1]

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It is generally acknowledged, among present-day corpus linguists working on registers and genres, that the notion of register has Firthian sources and, more generally, that it originates from British contextualism regarded as "the only tradition that suggests this kind of direct correlation between the functional organization of meaning in language and the organization of context" (Eggins & Martin 1997:239). In particular, one of Firth's (1890-1960) papers 'Personality and language in society', proposing categories for analyzing contextually situated language events, has often been invoked. American ethnographs of communication and sociolinguists, such as Hymes and Gumperz (1972), inspired by Firth's notions of context of situation and speech community, also claimed their affiliation to this text. However, it can be shown that there is a second Firthian source, the notion of restricted languages, which has hardly been mentioned[2]. Apart from Mitchell (1957), Halliday (b.1925) is the only Neo-Firthian to include restricted languages in his sociosemiotic approach, where he mentions them as closed registers or specialized languages (see for example Halliday et. al 1964; Halliday 1978; Halliday 1991). However this notion has disappeared from more recent works which nevertheless claim Firthian sources, such as corpus-based research on registers and genres (Biber 1988, Biber & Finegan 1994). Yet restricted languages, one of the few new notions that Firth introduced at the end of his work, became a touchstone for Firth's descriptive linguistics and raised crucial issues for early sociolinguistics and empiricist approaches in language sciences.

In my paper, I would like to examine these two Firthian contributions, situational categories and restricted languages, which, although conceived separately at two different moments of Firth's work and addressing distinct theoretical issues, evolved and merged into a single notion within Firth's work itself. We will see why restricted languages had been finally abandoned in favour of registers by the Neo-Firthians. In particular, the use of probabilistic methods which entail large amounts of data, especially large computer-based corpora, has given rise to a major turn in the treatment of linguistic events.

1. For a linguistic treatment of contextual categories
1.1. Speech communities and linguistic events

In his 1950 paper 'Personality and language in society' published in a sociological journal, Firth set up context of situation categories in order to account for language

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[1] A first version of this paper was read at the 18th International Colloquium of the Studienkreis Geschichte der Sprachwissenschaft, Leiden, 28-30 June 2006.
[2] For example, Eggins & Martin do not mention restricted languages in their historical survey of 1997.

events, which he defined as "the repetitive routines of initiated persons in the society under description" (1950:183). These categories, different from grammatical categories, classify contexts of situation and types of language functions. See the following excerpt (quotation 1), widely quoted, which proposes categories such as verbal and non-verbal actions of the participants, and objects and effects of the actions. Note that Firth acknowledged his debt to social anthropology, namely Malinowski (1884-1942), for the notion of context of situation associated with activity, and to Wegener (1848-1916) for his analysis of context of situation as a configuration of elements comprising persons, objects, non-verbal events, constituting a set of functions.

> (1) My view was, and still is, that 'context of situation' is best used as a suitable schematic construct to apply to language events, and that it is 'a group of related categories at a different level from grammatical categories but rather of the same abstract nature. A context of situation for linguistic work brings into relation the following categories:
> A. The Relevant features of participants: persons, personalities.
>   (i) The Verbal Action of the participants
>   (ii) The Non-Verbal Action of the participants
> B. The relevant objects
> C. The Effect of the Verbal Action.
> Contexts of situation and types of language function can then be grouped and classified. A very rough parallel to this sort of context can be found in language manuals providing the learner with a picture of a railway station and the operative words for travelling by train. It is very rough. But it is parallel with the grammatical rules, and is based on the repetitive routines of initiated persons in the society under description. (Firth, 1950:183)

Although Firth mentioned contextual categories in his work several times[3], he never really developed them and they remained in a rather sketchy state. However, he assumed that contextual categories were likely to be described linguistically. Thus, in his 1950 text, Firth spoke of speech community and of "those features of repeated events which appear to be parts of a patterned process" (Firth, 1950:187) which should be handled systematically by linguistic techniques.

He gave two very different examples of his view. The first one is dedicated to situational categories, while the second refers to specialized languages. In his first example, Firth analyses the sentence 'I'm going one for Bert'. When it is uttered, he says, the following questions have to be answered in order to provide a typical context of situation for the verbal action (also called linguistic event): What is the minimum of

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[3] See "Modes of Meaning" (1957 [1951a], note 1 p.203), "Ethnographic analysis and language with reference to Malinowski's views" (1968 [1957b]:155), finally "A synopsis of linguistic theory 1930-55" (1968 [1957c], p.177). A short version appeared in "Linguistic analysis as a study of meaning" (1968 [1952], p.15). In one of his latest papers, Firth would reassert the crucial role of context of situation and of its linguistic description: "The abstraction called here context of situation does not deal with mere 'sense' or with thoughts. It is not a description of the environment. It is a set of categories in ordered relations abstracted from the life of man in the flux of events, from personality in society." (Firth, 1968 [1957c]:200).

participants? for instance, three or four. Where might it happen? for instance, in a pub. What are the relevant objects? for example, beer. What is the effect of the sentence? the speaker stands up and gets a glass of beer for Bert, etc.

The second example concerns Firth's own experience of Japanese teaching during the second world war. British servicemen, he says, were taught the language used by Japanese pilots but not how to order a cup of tea in a Tokyo cafe or to hold an informal conversation with a Japanese citizen. As Firth said "We were not going to meet the Japanese socially, but only in such contexts of fighting as required some form of spoken Japanese" (Firth, 1950:182).

These examples are of particular interest because they display the two-faced characteristics of the situational linguistic categories set up by Firth to account for linguistic events. The first one exemplifies the categories describing participants, verbal and non verbal actions, in other words the categories describing ordinary linguistic events; the second exemplifies the technical language used by pilots, that is a case of specialized languages in specialized situations. These two aspects would evolve into two distinct notions, Firth's restricted languages and Neo-Firthian registers. In Firth's last paper of 1959, we come across the ideas of repertory and polydialectal social personality, so that both notions are intertwined. Each person is in command of a varied repertory of language roles, of a constellation of restricted languages.

> (2) The social person collects a varied repertory of interlocking roles without conflict or serious disharmony. Such an integrated personality makes for personal and social responsability and stability. For the purpose of linguistics such a person would be regarded as being in command of a constellation of restricted languages, satellite languages so to speak, governed by personality in social life and the general language of the community. […]
> In this connection it is useful to recognize distinctions between a close speech fellowship and a wider speech community in what may be called the language community comprising both written and spoken forms of the general language. A social personality in any large modern language community has got to be a pluralist in social roles and consequently in varying degrees polydialectal. (Firth, 1959:207-208).

With this last paper, where restricted languages refer to speakers' repertories of their own, it can be claimed that Firth gave the outline of the notion of register later developed by his followers.

1.2. *Levels of diction and repertories of utterances*

Firth never used the term "register", and a second source has been claimed by the Neo-Firthians at the origin of registers. Ure and Ellis (1977) and Halliday (1978) pointed out that the term "register" was coined by Reid (1956). In fact, T.B.W. Reid (1901-1981) seemed to have introduced the notion of "repertory of utterances" available for the different groups of speakers of a given language community, and the idea of distinct registers used by a given individual according to the different social situations in which he or she may be placed:

(3) Even if we possessed a separate repertory of utterances for each of the groups of speakers into which the French speech community must be divided, we should still be unable to establish a single linguistic system for any one group. For the linguistic behaviour of a given individual is by no means uniform; placed in what appear to be linguistically identical conditions, he will on different occasions speak (or write) differently according to what may roughly be described as different social situations: he will use a number of distinct "registers" [note 2]

note 2: cf. the levels of diction, indicated in the Report of the Commission set up by the International Council for Philosophy and Humanistic Studies quoted by Professor J. R. Firth in *Transactions of the Philological Society*. 1951, p.81. (Reid, 1956:32)

As can be seen in quotation 3, Reid quoted Firth in his note 2 and renamed "register" what Firth called "levels of diction", that is ordinary, narrative, emphatic, oratorical, poetic, ritual levels, etc. in a 1951 paper[4]. We do not know whether Firth was aware of Reid's text. Still the fact remains that, although Firth's repertories appeared later in 1959 (as seen in quotation 2 above), he never mentioned Reid's work.

To sum up, in various parts of his work, Firth put forward linguistic evidence of language as socially situated, one of his major assumptions inherited from British contextualism: sketchy categories describing the context of situation, specific technical languages, various levels of dictions where features of rhythm and prosody can be described. Apart from that, he did not propose any specific term for empirical entities accounting for linguistic events and speech community. On the other hand, he set up the notion of restricted languages at a specific period of his work, between 1955 and 1957.

2. Restricted languages

Restricted languages can be regarded as another way for Firth to address the issue of context of situation from a linguistic view. They were thought out in the last part of his work as one of the few new notions Firth put forward after 'Modes of Meaning' (1951). Restricted languages appeared in an article published in 1955 and were mainly developed in three conferences in 1956. Note that most of these papers were published only in 1968, edited by one of his followers, Frank R. Palmer (b. 1922), that is well after Firth's death in 1960.

With the notion of restricted languages, Firth thought out the different stages of an empirical view of linguistic description, that is the distinction between language of description, language under description, and language of translation, as well as the indeterminacy of language and especially metalanguage. Finally, with restricted language, Firth took a new step in implementing one of his major idea concerning language situated in social context.

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[4] "If the language contains several levels of diction (ordinary, narrative, emphatic, oratorical, poetic, ritual, etc.), the rhythmic, prosodic, and metrical features of each should be stated." (Firth, 1951b:224).

2.1. The Wittgensteinian source

In a later paper ('a Synopsis of linguistic theory', 1957c:178, note 38) dedicated to a synthesis of his main theoretical options, Firth quoted Wittgenstein (1889-1951) as the one who inspired his notion of restricted languages. It should be said that, at the beginning of *Philosophical Investigations*, Wittgenstein referred to language functions as tools, and gave the specific example of a complete primitive language, consisting of a few words "block", "pillar", "slab", "beam" being sufficient for two builders to communicate[5]. Indeed his primitive language looked like the technical language of pilots which Firth put forward in his 1950 paper 'Personality and language in society', thus well before the publication of the first German edition of Wittgenstein's book in 1953. It may be assumed that the reading of Wittgenstein revived Firth's first insights into technical languages and led him to think out the notion of restricted languages in its most practical and technical view. However, as we shall see, restricted languages evolved into a much more complex notion in Firth's work.

2.2. Metalanguage and Structural Linguistics

Restricted languages appeared in Firth's later work, when one of his major concerns was to set up the crucial status of descriptive linguistics against Saussurian and Neo-Bloomfieldian Structural Linguistics. Restricted languages were a way to question the monosystemic view of language shared by European Structuralists (especially Meillet's view of language language as a one-system whole "où tout se tient"), and to criticize pointless discussions on metalanguage[6]. In fact, Firth rejected autonomous and unequivocal metalanguage for linguistics and sciences in general and never used the term, just as he refused "any fully axiomatized mathematical linguistics" producing only "dead technical language" (Firth, 1955:47). This does not mean that Firth was against any metalanguage. On the contrary, he insisted on the importance of carefully establishing the language of description of linguistics, "the use of language about language":

> (4) These may seem to you trivial details of nomenclature but they raise fundamental problems and indicate how careful we must be in the use of language about language – that is to say, one must establish with the greatest care what I have called the language of description. (Firth, 1956b:105).

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[5] Actually the reference in Firth's paper is wrong. Instead of *Philosophical Investigations* II,2, it seems that one should read I,2: "The language is meant to serve for communication between a builder A and an assistant B. A is building with building-stones: there are blocks, pillars, slabs and beams. B has to pass the stones, and that in the order in which A needs them. For this purpose they use a language consisting of the words "block", "pillar", "slab", "beam". A calls them out ; – B brings the stone which he has learnt to bring such-and-such a call. – Conceive this as a complete primitive language." (Wittgenstein 1964 [1953]: I,2 p.3).

[6] "My submission is that in a great deal of present-day structuralist linguistics insufficient attention is paid to all these methods of stating linguistic facts. Much of the prevalent philosophizing on metalanguages and the like does not face the essential problems of statement. "(Firth, [1955] 1968:49).

Instead of "metalanguage", Firth spoke of a "technical language of description of linguistics", "restricted languages of linguistics", and more generally "restricted languages of sciences", "special languages of sciences" or "specialist languages of sciences". Thus, when it first occurred in a 1955 text dedicated to the criticism of Structural linguistics, the term "restricted languages" referred to the language of description of linguistics and its indeterminacy:

> (5) The empirical data of such sciences as linguistics are usually stated in technical restricted languages which must, nevertheless, involve indeterminacy, since technical terms are collocated with words of common usage in general language. Linguistics which does not fully recognize this element of indeterminacy cannot very well be applied to the study of language in society. There is need to recognize indeterminacy, not only in the restricted technical language of description, but also in the language under description, in describing, let us say, familiar colloquial English as used in professional circles in southern England; but the point is that the restricted language of linguistics used for statements of fact, must use other related forms of the language, shared with common colloquial, hence this double character of indeterminacy. (Firth, 1955:46-7).

In this text, Firth emphasized the double indeterminacy of the language of description: it shares words with common colloquial although they have different meanings; ordinary words collocate with technical terms. He resumed this point in a later paper, when he underlined that the meaning of concepts and categories cannot be derived from their meaning in everyday language. Quoting the positivist Richard von Mises, he maintained that this position was valid for every science, whether linguistics or mechanics (for example when using the terms "force" and "work")[7], and gave the list of the technical terms he used in his own language of description: "*level* or *levels of analysis*, *context of situation*, *collocation and extended collocation*, *colligation*, *structure*, *system, element, unit, prosody*, and *prosodies*".

Two remarks should be made on excerpt (5) where the term "restricted languages" first appeared in Firth's work. In addition to "language of description", indeterminacy concerned "language under description". This indeterminacy had already been underlined by Firth in 'Modes of Meaning' (1951:190), when he spoke of "language turned back on itself". Besides, it can be said that "familiar colloquial English as used in professional circles in southern England" as the language under description, constitutes an early formulation of variation and registers which were to play a crucial role in the definition of restricted languages.

2.3. Definitions of restricted languages

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[7] "It is especially to be emphasized that "the meaning of a technical term in the restricted language of a theory cannot be derived or guessed at from the meaning of the word in ordinary language. What in mechanics is called *force* or *work* can in no wise be derived from the meanings these words carry in everyday language." (Firth, 1968 [1957c]:169).

Firth defined restricted languages as limited types of a major language, for example subsets of English (see quotation 6), contextually situated (see quotation 7) and particularly adapted to descriptive linguistics (see quotations 6 and 9). As such they are characterized by specialized (or micro) glossaries, grammars and styles (see quotations 8 and 9):

> (6) Descriptive linguistics of the structural kind is at its best when applied to a well defined limited type or form of a major language, let us say of English (Firth, 1956b:98).

> (7) Restricted languages function in situations or sets or series of situations proper to them (Firth, 1956b:112).

> (8) Restricted languages function in any form of speech or writing with specialized vocabulary, grammar and style (Firth, 1956b:112).

> (9) The material is clearly defined, the linguist knows what is on his agenda and the field of application is sufficiently circumscribed for him to set up *ad hoc* structures and systems. […] A restricted language can be said to have a *micro-grammar* and a *micro-glossary* (Firth, 1956b:106).

2.4. Restricted Languages and Descriptive Linguistics: the three languages of linguistics

Restricted languages are tightly linked to Firth's views on descriptive linguistics, according to which theory and applications cannot be dissociated: "Descriptive linguistics is one aspect of General Linguistics, that is to say it is one of the applications of the theory of language" (Firth, 1956b: 108). "Linguistic analysis is impossible without the guidance of theory and skill in the methods and procedures of its application" (Firth, 1957a:126).

Restrictive languages are well adapted to descriptive linguistics, the task of which is not to deal with language as a whole, but to study restricted, more manageable descriptive languages: "I have used the expression 'restricted language' and have said that descriptive linguistics is at its best with such languages" (Firth, 1956b: 106). They are also convenient within Firth's polysystemic approach: "The statement of meaning at the grammatical level by dispersion at a series of levels of analysis is perhaps at its best when applied to what I have called *restricted languages*" (1956c:124).

Actually, restricted languages refer to the three types of languages defined by Firth as crucial to descriptive linguistics: the language under description, the language of description and the language of translation. Firth repeatedly stated in his work that all those languages should be considered restricted languages. See excerpts 10, 11, 12, extracted from texts respectively written in 1955, 1956 and 1957.

> (10) It may clarify the issue if we assume that in stating the facts the linguist must carefully consider (1) the restricted language under description, (2) the

language of description, including technical terms, collocations, notations and formulae, and (3) the language of translation […]. (Firth, 1955:49).

(11) In order to promote clarity and firm guidance of theory in practical application the following distinctions must be kept constantly before us:
(a) The language under description (l.u.d. *beschreibene* [sic] *Sprache?*) which should whenever possible be a restricted language;
(b) The language of description (l.o.d., *beschreibende Sprache, Aussagesprache?*). The l.o.d. includes the technical terms and expressions and all forms of notation, phonetic, phonological and formulaic, grammatical and lexicographical;
(c) The language of translation (l.o.t., *Übersetzungssprache?*). This is not always a foreign language – the English of a restricted language may be presented in what may be rightly called a translation. (Firth, 1956b:112).

(12) As I have said elsewhere, descriptive linguists are concerned with the language under description, preferably a restricted language, the language of description and also the language of translation […] The restricted languages of official translation, in spite of careful control and attempts at valid equivalents deserve detailed study. (Firth, 1957:87)

Restricted languages operate at all the levels of the statement of meaning, according to Firth's polysystemic view: grammar and lexis (quotation 13) and collocational level (quotation 14):

(13) Grammar and lexicography are both keyed to the statement of the meaning of the restricted language under description by the controlled language of description, supplemented by well considered languages of translation (Firth, 1957c:202).

(14) Statements of meaning at the collocational level may be made for the *pivotal* or *key words* of any *restricted language* being studied (Firth, 1957c:180).

They also operate on discourse level, in discourse analysis and stylistics:

(15) The separation of the study of grammatical relations from the study of the patterns and designs of words, sentences and the longer elements of discourse which is properly called *discourse analysis* or *stylistics*, also helps in the characterization of such restricted languages (Firth, 1956c:125).

Each restricted language determines a different step of description in the process of descriptive linguistics: the raw material of experience, systems of transcription and technical terms, source and target languages, metalanguages used in grammars and dictionaries.

Thus, the language under description is the basic material of restricted languages, the raw material of experience, for example the phonic material we hear

and observe. Language under description should be recorded in texts (orthographic, phonetic transcriptions etc.).

> (16) For descriptive linguistics, the basic material of the restricted language or the language under description must be recorded in texts of some sort, either in orthography or some form of transcription. For the linguist, the text is central and is kept in the focus of attention. I use the term 'text' to refer to the 'corpus inscriptionum', of whatever size. Texts will be attested and established either in orthography or some other form of spelling or transcription. […] The restricted language, which is also called the language under description (*beschriebene Sprache*) must be exemplified by texts constituting an adequate *corpus inscriptionum* (Firth, 1956b: 98 and 112).

The language of description should be expressed in a natural language, such as English or German. It includes all types of systems of transcription and notation and technical terms (quotations 11b above, and 17). Later in 1957 (see quotation 18), Firth would give a stronger definition of this language, making it a consistent framework of categories:

> (17) This language of description might be English or German. The language of description would include the spelling employed or transcription, and the technical terms, phrases or expressions (Firth, 1956b: 98).

> (18) To make statements of meaning in terms of linguistics, we first accept language events as integral in experience regarding them as wholes and repetitive and interconnected, and then we propose to apply theoretical schemata consisting of a consistent framework of categories which are given names in a restricted language and in which all such specialized terms and expressions have their setting (Firth, 1957:176).

The language of translation comprises the source and target languages, as well as the definition languages (or metalanguages) of grammar and monolingual dictionaries (see quotation 19):

> (19) The language of translation might be German for English or English for German and I should like to extend the concept of translation to include the definition languages used in, say, unilingual grammars and dictionaries; that is to say in the Oxford Dictionary, we have the language under description which is current English in an historical perspective and the language of translation which appears in the definitions (Firth, 1956b: 98).

In his 1956 Berlin conference (1956b: 99), Firth gave an example of the implementation of restricted languages in the process of descriptive linguistics. His example adressed "a restricted language of English, having the implication of utterance", that is spoken English in interaction; in the event, Firth dealt with conversations between two or several people discussing theatre. The basic, raw phonic material we can hear and observe is the language under description; two levels of

language of descriptions are applied to the language under description: first the technical descriptive language of phonetics, and the notation based upon established phonetic categories; second the phonological language of description, with its own categories and units. In this example, Firth referred to phonic and phonologic levels, the two languages of description, as abstractions in the descriptive process. This point is important, and we shall see that languages under description, at first regarded as raw material of experience, are also abstractions.

So far, we have focused on restricted languages as languages of description. Let us now examine more thoroughly restricted languages as languages under description.

2.5. Language under description and context of situation

The language under description can be described along two series of characteristics. From a methodological point of view, the language under description should be a text, the transcription of the raw empirical material. In addition, the language under description should be contextually determined so that each restricted language has a discursive definition. Firth always used the phrase "the restricted language of X". A rapid survey of Firth's papers (Palmer 1968) provides the results in Table 1. In Table 1, we can see that Firth dealt with a wide range of restricted languages, either restricted languages of description, under description, translation, mechanical translation or teaching.

Firth (Palmer 1968) page no.	area	X (in "restricted language of X")	
87, 98, 106, 135	scientific	Sciences, science	
98, 106, 112, 135	technical	Technology, sport, defence, industry, aviation, military services, commerce, law and civil administration	
87, 98, 106	political	Politics (national and international), political propaganda	
98, 106	stylistics	narrative personal reference and address single author, lyrics of a poet like Swinburne single text: Magna Carta in Medieval Latin, or of the American Declaration of Independence a book a *genre*	
87	translation	Translation, official translation	
106	language teaching	Training through a specific restricted language	

Table 1

It is particularly important in the definition of restricted languages that they are contextually situated and liable to variation. In the case of major languages, such as English or French, contextual situations are provided by natural (geographic, climatic,

wildlife) and cultural variations which determine various uses and the need of restricted languages. Spoken in Asia, America and Africa as well as in Europe, English is not a unified language in use and should not be taught or translated as a homogeneous whole. It is the same with French spoken in such different places as Europe, North America and North Africa. Firth developed a specific idea of international language: English functions as an international language, but, as it is widely spread in space, it is prone to local variations. As such, Firth compares the 20th-century use of English to the former use of Latin in Europe:

> (20) Latin in the life of Western Europeans of any period is dwarfed by the magnitude and diversity of the uses of English today in the lives of Indians, Pakistanis, Sinhalese, and men, women and children of many other races in Asia and Africa (Firth, 1956c:116).

Variations and context impinge on every type of restricted languages. Even, in the restricted language of weather bulletins, which yet can be considered extremely constrained, there are dramatic variations according to the languages and to the continents where they are used. Thus different referential spaces determine different restricted languages which cannot be shared by every English speaker or by every French speaker.

> (21) If next you will consider for a moment the restricted languages of meteorology, and I am sure you will approve of the description 'restricted' in this case, you will realize that special studies would show how different the internal relations of the structures and systems are in English and French. Further, in the second set of relations, the extended relations, the weather situations and the reading public are so different in England, Canada and Australia, and in France, Algeria and Quebec (Firth, 1956c:119).

It is the same with mathematics. Even if they are independent of spatial and time references, they may be influenced by cultural traditions:

> (22) As examples of restricted languages I have recently looked at mathematical treatises in English, French and German, concentrating on the grammatical meaning and noticing the vocabulary and styles of the three languages employed. I found the terse and sharply pointed German of Landau extremely restricted, and this appeared in the English translation. The French I found similarly restricted, but something could be said about what appears to be a traditional classical style. You can imagine how restricted the pronominal and verbal systems are in such works. (Firth, 1956c:118-119)

It can be said that Firth's idea of speech communities, including spatial and time references evolved into restricted languages. Restricted languages can be regarded as a way to bypass the variations inside major languages due to environmental or cultural differences. They are a way to account for what could be called the English

"hyperlanguage"[8] when descriptive linguistics is at stake, in particular for translation and language teaching. However, in spite of this diversity, Firth assumes that there is the possibility of mutual assimilation of languages within similar contexts of situation. Restricted languages are the very place of mutual assimilation making accurate translation possible:

> (23) It is in the study of the restricted languages of science and politics, both national and international, that part of the translation problem is met, in the mutual assimilation of the languages in similar contexts of situation. My suggestion is, therefore, the study of the more or less mutually assimilated restricted languages, necessitated by present-day world conditions (Firth, 1956a:87).

> (24) I have earlier referred to what I call 'restricted languages'. The difficulties of translation between two discrepant languages are not so great if the situations are to some extent common. It is easier to build the bridge from the source language to the target language if the situational context is mutually assimilated by cultural convergence (Firth, 1956b:109-110).

> (25) For the comfort of machine translators, if they need it, which I doubt, there are promising parallels in some restricted languages which are cognate and mutually assimilated in cultural situations (Firth, 1956c:123)[9].

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[8] Variations inside major languages have been adressed by Auroux (1997) with his notion of hyperlanguage, which he defined as a space-time area structured by a set of speakers situated in a social environment in a part of the world:

> "Le langage humain n'est pas autonome, ce n'est pas une sphère d'activité en soi et pour soi. Pour fonctionner comme moyen de communication, il doit être situé dans un monde donné et parmi d'autres habitudes sociales. Il n'y a pas de langage humain possible sans hyperlangue." (Auroux, 1997:114)

> ["Human language is not autonomous ; it is not an activity sphere per se. To function as a mean of communication, it should be situated within a given world and among social habits. There is no possible human language without hyperlanguage."]

> "Un Québécois (ou un Brésilien) utilise bien la même expression que le Français (ou le Portugais) quand il parle d'un "grand arbre". Pourtant, à bien des indices textuels on remarquera que les expressions n'ont pas le même sens: la langue grammaticale n'a pas changé, c'est le monde qui a changé, provoquant un changement de l'hyperlangue. (Auroux, 1997:115).

> ["A Québécois (or a Brazilian) indeed uses the same expression as a Frenchman (or a Portuguese) when he speaks of a "big tree". Yet, from many textual indices, one notices that the expressions have different meanings: grammatical language has not changed ; it is the world that has changed, producing a change in the hyperlanguage."]

[9] See also Bar-Hillel (1951 [1964]: 163) who advocated the use of restricted languages for Machine Translation: "There are situations, where perhaps a restricted vocabulary or a restricted number of sentence-patterns or perhaps both are used or might be used. This is true of "basic" languages such as Esperanto, Interlingua etc. and also with regard to the pilots' Q-code or the code used by meteorologists. […] Some mechanical translation system from the pilots' native language into the international code and another system for translating from this code into the control tower operator's native language might be of great help".

Remember that this question was addressed in Firth's German conference in the post second world war period and that convergence between contextual diversities in order to avoid further misunderstantings and conflicts was a real and current issue. The potential assimilation of language and cultural diversity led Firth to consider the restricted language of English as a potential international language for exchanges in the then emerging European community, in particular in the specific domains of sciences and technology:

> (26) In promoting European unity and in advancing international European co-operation, it might be useful to promote such restricted languages as would allow colleagues in various professions and occupations to understand one another's languages. It is a more helpful approach than to set out to learn English in general – whatever that may mean (Firth, 1956b:106).

> (27) With the rapid development of technology, now to be liberally endowed by government, English in science and technology becomes international, both in a general sense and also in the English of specialized sciences. To approach these problems anew requires both general and special grammars formulated in the light of contemporary linguistic theory (Firth, 1956c:116).

The interest for international languages based on limited glossaries and grammars of natural languages knew a revival in the post-war years in the wake of Ogden's *Basic English* (1930). However, Firth explicitly denied the assimilation of his restricted languages with *Basic English* on the grounds that "a restricted language is limited by its use, but, [contrary to Basic English which boasted to comprise only 850 words] its micro-glossary may be rich" (Firth, 1956b:111). In addition, it should be said that Firth's attention to language variations and context was not shared by Ogden for whom this diversity was useless: "It is clear to most persons with a knowledge of history and an interest in international organization that one of the chief needs of Europe is fifty more dead languages" (Ogden, 1930: 1). Contrary to Firth, Ogden was not interested in use "questions of what a word will do for us has little relation to the number of times it is used in newspapers or letters". Especially, the meaning of words should not be defined by use but by a sort of network of *a priori* semantic entities ("a map").

3. Neo-Firthian Registers
3.1. Registers as Firthian views revisited by Ethnography of communication

As they were contextually situated, at the heart of variability and linked to the speaker's potential polydialectality, the different features of Firth's restricted languages tended to converge towards the Neo-Firthian notion of register. Therefore it may seem strange that the Neo-Firthians needed to use a new term "register" instead of keeping restricted languages when they addressed language variety. Three types of evidence can be invoked: limited access to sources; emergence of sociolinguistics; need for theoretical modifications.

When registers appeared in Halliday et al. (1964), only a few Firthian texts dealing with restricted languages had been published. Besides, these texts, 'Structural Linguistics' (1955) and 'Synopsis' (1957), mainly dealing with restricted languages as the languages of linguistics (languages of description, under description and translation), and their involvement into polystemics, did not address the issue of variation. On the other hand, the three 1956 conferences ('Linguistics and Translation', 'Descriptive linguistics and the Study of English', and 'A new Approach to Grammar'), where Firth worked out the connection between restricted languages and variation, would be published only in 1968. Thus, although M.A.K. Halliday, Angus McIntosh (1914-2005) and Paul D. Strevens had been Firth's colleagues, followers or pupils, they might have had at their disposal only a part of the sources dealing with restricted languages. In particular, it is likely that they had not attended the Berlin 1956 conference and were not aware of the most variationist aspects of restricted languages.

In Halliday et al. we can see the junction between Firth's views on context of situation and language use, and the rise of ethnography of communication and sociolinguistics in the 1960s. Thus the authors refer to Ferguson and Gumperz's work on linguistic diversity in South Asia, Weinreich's languages in contact and Quirk's use of English.[10] It then should be said that registers had not been the direct successors of restricted languages. They have been established on Firthian views already revised by Hymes and Gumperz, so that Halliday et al. could not take up restricted languages as such without substantial modifications, notably within Halliday's emerging sociosemiotic framework.

The notion of register was first worked out by Halliday and al. (1964) in order to address the issue of language variety in connection with foreign language teaching. Linguistic variety should be studied through two distinct notions, dialect and register, which account for linguistic events. Remember that linguistic events, defined as the linguistic activity of people in situations, is a Firthian notion:

(28) Language is not realized in the abstract: it is realized as the activity of people in situations, as linguistic events which are manifested in a particular dialect and register (Halliday et al., 1964:89).

They oppose dialect (variety according to user, that is varieties in the sense that each speaker uses one variety and uses it all the time) to register (variety according to use, that is in the sense that each speaker has a range of varieties and chooses between them at different times). The category of 'register' refers to the type of language selected by a speaker as appropriate to different types of situation[11]. We recognize here Firth's insights on the polydialectal character of the social personality.

Unlike Firth, who remained rather vague on this point, Halliday et al. proposed formal criteria distinguishing registers and classifying them into patterns. The main

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[10] Charles Ferguson (1921-1998), John Joseph Gumperz (b. 1922), Uriel Weinreich (1926-1967). However, it is to be noted that they do not mention Basil Bernstein's (b. 1924) notions of 'elaborated' and 'restricted' codes yet.

[11] Register is associated with the notion of social convention. Thus, the mixing of registers is among the most frequent mistakes made by non-native speakers of a language and often results in miscommunication.

criteria are lexis and collocations more that grammatical distinctions.[12] See the examples given in quotation 29: 'cleanse' puts us in the language of advertising, 'probe' of newspapers, especially headlines, 'tablespoonful' of recipes or prescriptions". As to collocations, "'Kick' is presumably neutral, but 'free kick' is from the language of football."

> (29) The crucial criteria of any given register are to be found in its grammar and its lexis. Probably lexical features are the most obvious. Some lexical items suffice almost by themselves to identify a certain register: ' cleanse' puts us in the language of advertising, 'probe' of newspapers, especially headlines, 'tablespoonful' of recipes or prescriptions, 'neckline' of fashion reporting or dressmaking instructions. […] Often it is not the lexical item alone but the collocation of two or more lexical items that is specific to one register. 'Kick' is presumably neutral, but' free kick' is from the language of football (Halliday et al., 1964:88).

Later grammatical criteria also became relevant. Ure & Ellis (1977) showed that register contrasts are better described in terms of grammatical categories:

> (30) 'He heated the mixture' is likely to occur in non-specialised language; 'the mixture was heated' is more likely to belong to the scientific or technical field; the difference here is in the class of clause, agent-oriented in the non-specialised text and process-oriented in the specialised one […] and also in the associated choice of class of verbal group (active in the non-specialised, passive in the specialised), two associated choices at different ranks (Ure & Ellis, 1977:204).

3.2. Restricted languages and registers: two separate entities?

Within this framework, restricted languages are referred as specific, constrained types of registers. (Halliday et al. 1964, Halliday 1978, Halliday & Hasan 1980). They constitute a specific type of registers which "employ only a limited number of formal items and patterns." However Halliday et al. (1964) acknowledge that the category of restricted languages is not clearly defined and it could be said that there is a kind of continuum between register and restricted languages. In fact, the distinction between restricted languages and registers is so minimal, that they regard as a restricted

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[12] In his 1975 book, Mitchell compares the Neo-Firthian register to Firth's restricted languages. He insists that "it is because language is more than form that the notion of register or restricted language is useful" (1975:9). Both "share a willingness to look at more aspects of meaning than most other kinds of linguist" (1975:8). However, he notes that the Neo-firthians give more importance to form than Firth, "in the sense that they have regarded a change of form as involving a potential change of register" (1975:8) "The Neo-Firthian term *register*, for example, carries with it the recognition that language is more than just form and it is this that makes the concept interesting and useful." (Mitchell 1975:4).

language the basic Japanese taught by Firth to pilots in his 1950 paper at a time when Firth had not yet introduced the notion of restricted languages (see §1.1. above).[13]

Sometimes, it seems that registers and restricted languages are equivalent. See in quotation (31) the use of "technical and commercial registers" versus "the restricted language of commercial correspondence" for the purpose of foreign language teaching:

> (31) An export manager in an industrial firm may need to speak and be spoken to in the foreign language, both in a technical register and in informal conversation; but in the written language he might only require technical and commercial registers. For secretarial purposes, the restricted language of commercial correspondence may be the only requirement of a foreign language; it can be effectively taught in secretarial colleges in quite a short time (Halliday et al., 1964:174-5).

According to the authors, the major difference between registers and restricted languages lies in socio-linguistic variations and potential creativity: "except in restricted languages, it is normally assumed that individuals will differ in their language performance" (Halliday et al., 1964:96). This position has been reinforced later by Halliday and Hasan (b.1931) for whom only registers are touched by creativity, so that restricted languages can then be regarded as closed registers:

> (32) Now the category of register will vary, from something that is closed and limited, to something that is relatively free and open-ended. That is to say, there are certain registers in which the total number of possible meanings is fixed and finite and may be quite small. One example of that which was familiar to those who were in the armed services during the second world war was the set of messages that one was allowed to send home from active service by cable. […] It is a characteristic of a *closed register*, one in which the total number of possible messages is fixed and finite […] That kind of register is, of course, an extreme case; we could refer to it as a restricted language. It is a kind of register in which there is no scope for individuality, or for creativity. The range of possible meanings is fixed. (Halliday and Hasan, 1980:64-5)

Remember that this point was not very clear in Firth's papers. Restricted languages presented contradictory features. They seemed to be at the heart of linguistic variation so that even restricted languages as constrained as those of meteorology (weather forecasting) and mathematics (see quotations 21 and 22 above) are likely to vary

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[13] "One striking example of the success of specialized language teaching was provided during the Second World War, both in Britain and in the United States. Numbers of British servicemen were taught, in a very short time, a restricted language of Japanese: for example, the language used by Japanese pilots in communicating with each other and with the ground. Those who learnt this variety of Japanese did not at the same time learn to order a cup of tea in a Tokyo cafe or to hold an informal conversation with a Japanese citizen ; such skills they were not going to need. The British courses were worked out on linguistic principles under the direction of Professor J. R. Firth, who had himself first formulated the concept of restricted languages in his work in general linguistic theory" (Halliday et al., 1964:174).

between European languages. At the same time, providing mutual assimilation of languages, they set up stabilized areas for language teaching and translation while limiting misunderstandings. This is the latter line of thought, together with Harris's conception of sublanguages, which gave rise to many practical achievements. In the 1970s, sublanguages such as Taum-Meteo were developed for Machine Translation (Kittredge & Lehrberger 1982). More recently, specialist operational languages have been designed in order to deal with increasing air, sea, police and emergency communications in the European Community, especially since the Schengen Accord (1985). In the 1980s, VHF Speech Communication for Vessel Traffic Systems, sea and port communications (Seaspeak), and Radiotelephony Communication for Pilots (Airspeak) were developed at Wolfson College, University of Cambridge. In the 1990s, PoliceSpeak was developed in order to facilitate police communication at the Channel Tunnel and its frontiers. It evolved as a restricted sub-set of English language for both speech and text police communications including a corpus-derived English/ French police lexicon comprising some 5,500 entries, and a special grammar. In these projects, purpose built languages, communications technology and computational operational procedures and multilingual interfaces have been integrated (Johnson 1993).

Firth's inheritence is more directly obvious in the Neo-Firthian registers. Halliday et al. reformulated the situational categories which Firth adumbrated in his text of 1950 'Personality and language in society' into three classifying dimensions: field of discourse, mode of discourse and style of discourse. Field of discourse refers to what is going on; 'mode of discourse' refers to the mode of the language activity, the channel of communication adopted (for example spoken and written language). Finally 'style of discourse', which Halliday will later name 'tenor of discourse', qualifies the relations among the participants. The authors gave the example of a lecture on biology in a technical college: scientific field, lecturing mode and polite style; more delicately, in the biological field, academic lecturing mode and teacher to student style.

From a methodological point of view, just as Firth advocated texts for the study of restricted languages, several arguments have been put forward by Halliday and the Neo-Firthians in favour of corpus-based treatment of registers. Note that this became possible only with the technical development of computers.

The first argument is the one of continuum. Halliday et al. (1964) noted that registers, unlike descriptive categories, cannot be dealt with as closed systems of discrete terms. In particular, as every speaker speaks in many registers which form a continuum, it is impossible to list the total range of uses:

> (35) Every speaker has at his disposal a continuous scale of patterns and items, from which he selects for each situation type the appropriate stock of available harmonies in the appropriate key. He speaks, in other words, in many registers. (Halliday et al., 1964:94)

Actually the continuity is double. There is a continuum between registers which cannot be easily distinguished from each other for a given speaker; besides there is a continuum between the features of description themselves. Rather than be stated in the form of rules, registers are typical patterns of use obtained from a generalization from

a large amount of data. In 1978, Halliday put forward a probabilistic view of registers which reinforced the necessity of large corpora. The notion of register became a form of prediction, and it is the situation, that is the social context of language use, which allows us to predict linguistic features. Then the question is "which kinds of situational factor determine which kinds of selection in the linguistic system" rather than "what peculiarities of vocabulary, or grammar or pronunciation, can be directly accounted for by reference to the situation", which is a wrong question (Halliday, 1978:32).

This idea of predictability can be stated in terms of inferences from the text to the situation. For this purpose, Halliday used the notion of indexical features:[14] 'once upon a time' is an indexical feature which serves to signal the fact that we are now embarking on a traditional tale"; "on your marks" indicates that a race is about to begin etc.

Halliday (1991) drew a distinction between global probabilities, those of the grammar of English, and locally conditioned probabilities, those of this or that particular register. We can define registers by reference to their grammatical probabilities. As Halliday states "register variation is the resetting of the probabilities in the grammar"[15]. It seems likely, he says, that these probabilities will remain within the values defined by the system, that is the grammar of English. Halliday makes an exception for Firth's restricted languages. Only in restricted languages can be expected a categoric shift. He mentions weather forecasting, where can be observed a tense shift: future becomes the more frequent tense, contrary to the grammar of English where past and present are the more frequent.

Conclusion

At the outcome of our inquiry, it seems that the notion of restricted language was the result, inside Firth's work iself, of four distinct lines of thought. First, an attempt to provide functional categories accounting for linguistic events was put forward in 1950; later, from 1955 to 1957, Firth's restricted languages attempted to tackle the issue of metalanguage in an empiricist view, to define methodological perspectives for descriptive linguistics, which should not handle the whole language, but subparts of it, and finally to address the study of variation inside major languages, such as English, where differences of space, time and culture between English speakers may induce major variations.

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[14] See Gumperz's contextualization cues (Gumperz 1982).

[15] In recent research, corpora and probabilities have become more and more crucial for the linguistic definition of registers. For example Eggins & Martin (1997) redefine register dimensions, field, tenor and mode, in terms of clusters of linguistic differences. Biber et al. (1998) try to address linguistic issues from register inquiries: How can the use and function of morphological characteristics, grammatical classes and syntactic constructions be better understood by analysing their distribution across registers? What linguistic and non-linguistic features are associated with the choice between seemingly synonymous structural variants? See also Sampson (2001: 7) who "looks at the question of where the difference lies between the simple, punchy English of fiction and the highly ramified structures of technical writing. Do the separate genres have separate grammars? – are they, in effect, separate (if closely related) dialects of English?"

All these conceptions of restricted languages merged into a notion close to Neo-Firthian register in Firth's last paper of 1959, when he conceived of restricted languages as repertoires of polydialectal speakers.

Among the different reasons why Halliday limited restricted languages to specialized languages, that is specific types of registers, should be mentioned the theoretical changes he made, due to the rise of sociolinguistics on the one hand and of information theory on the other, which found an echo in Halliday's sociosemiotics. Halliday, who, very early, conceived of linguistic entities as a continuum, especially lexicogrammar as a continuum between grammar and lexis, developed a probabilistic approach where rules and discrete units gave way to probabilities obtained with large amount of data. In particular, registers should be described by continuum features rather than by discrete rules. Even if it was not in contradiction with Firth's views, this methodological turn was nevertheless a crucial theoretical turn.

It should to be noted that Firth and Halliday refer to the same view of empirical linguistics, which involve restricted languages and registers as abstractions, as scientific fictions required by linguistic analysis. Firth specifies that 'restricted' means 'restricted by scientific method' and that 'it is not a general term for any actual institutionalized form of language easily recognized by the average man.'[16] A similar feature defines Halliday's register as a fiction that cannot be clearly defined or delimited empirically.[17] Restricted languages and registers should then be regarded as crucial "constructions" of corpora-based investigations within empirical linguistics.

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[16] "It is one of the requirements of science that the attention of our scientific equipment should be focused on manageable subjects and hence the importance of the study of restricted languages-restricted by scientific method conforming to functions of language in life. The term 'restricted language' is applied to a scientific fiction required by linguistic analysis. It is not a general term for any actual institutionalized form of language easily recognized by the average man. We have to study the language of babies, or boys, and adolescents of different classes and regions, and of all manner of specialized situations determined by manners and customs and recognized institutions.The situationally appropriate forms of language can themselves be regarded as institutionalized." (Firth 1968 [1959]:207).

[17] "Now a register, of course, is a fiction, in the same sense that a dialect is a fiction. Registers do not begin and end suddenly. There is no such thing as one clearly-defined register which is different from all others, just as there is no one clearly-defined dialect which is different from all others." (Halliday and Hasan 1980:66).

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