The contribution of John Rupert Firth to the history of linguistics and the rejection of the phoneme theory.

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This article is meant to show how central Firth's particular position towards the phoneme is, in terms of constitution of the concept of phonaesthesia as a direct answer to the flaws he denounced in the phoneme. The rejection of the *phoneme theory* then led to the constitution of a whole and coherent theory of language now known under the name *Contextual theory of meaning* or even *Firthian linguistics*. It has eventually resulted in the creation of an independent school of thinking, the London School of Linguistics that has influenced many generations of British linguists.

1.   Introduction

> *If we regard Robins as the 'father of the History of Linguistics in Britain'today, we should perhaps call Firth the grandfather of this field of human curiosity about language and the manner in which it has been treated and used in the past 2,500 years.*
> *(Koerner 2004:202)*

If John Rupert Firth (1890–1960) may be considered the 'grandfather of the History of Linguistics', it is all the more interesting to resort to a *mise en abyme* and apply such an approach to shed light on the idiosyncratic role he played in the acknowledgement and development of linguistics as an academic discipline. In such a respect, the phoneme theory has been a stepping stone crystalizing many of the topics Firth was concerned with. His treatment of the subject is quite emblematic of his general way of handling language and its study.

Though his two main biographies (Rebori 2002; Plug 2008) tend to show an early interest in languages, John Rupert Firth's initial academic formation was devoted to history. This aspect of his life was to have an everlasting impact on his own career as well as his students' and colleagues', the future members of what shall be known as the *London School of General Linguistics*.

Once his Master's Degree was obtained in 1913, Firth applied to the Indian Education Service (1915–1928). Though not a lectureship in history, Firth signed up for a job labelled 'Master of the Training Class for Teachers in European Schools' in Sanawar, the Punjab.

Serving in India reawakened Firth's interest in language studies. The acculturation stemming from that experience was, according to him, a necessary condition to guarantee both the objectivity and scientific character of his researches, allowing him to shed a new light on occidental linguistics:

> *A western scholar must de-europeanize himself, and, in view of the*
> *most universal use of English, an Englishman must de-Anglicize him-*
> *self as well.*
> *(Firth 1956a:96)*

Thus, experience was also to play an important role in his conception of phonology. First, on a historical perspective, Firth perceives India as the 'home of phonetics' (Firth 1954 cited in Rebori 2002:171). Moreover, phonological features characterizing Indian languages as well as South-Eastern languages in general, such as the syllabary structure, were to play a major role in his theory.

Soon, his analysis of language met a major obstacle: a necessity to segment statements in order to better apprehend them (Firth 1930:182). This approach does not seem natural to Firth as it hampers his global contextual perception of language, but he eventually agrees on a necessity to identify and delimit constituents. Choosing a relevant unit for division proved to be a key step for Firthian linguistics though the choice of a segmentation unit was a hard task and a recurrent motive throughout his writings (Firth 1948a:147):

> *Strictly speaking, the grammatical method of resolving a sentence into*
> *parts is nothing but a fanciful procedure ; but it is the real fountain of*
> *all knowledge, since it led to the invention of writing.*
> *(Firth 1937:15)*

In that context, Firth came to consider different segmentations such as words, phones, sounds, as well as the *phoneme theory*:

> *It is not easy to determine what are the units of speech. Some would say*
> *speech sounds, others phonemes […] The general opinion is, however,*
> *that words, not phones or phonemes or phoneme systems, are the units*
> *of speech.*
> *(Firth 1930:182–3)*

Though these considerations had at first a methodological background, we will establish that the subject turned out to be a major issue in this first half of the 20th century. Our reconstruction of Firth's own historiography of the concept of *phoneme*, scattered throughout his work, should provide the reader both with the contextual data of the time and Firth's very first impressions of the concept. We shall then discuss Firth's own acception of the phoneme in order to understand what he claims to be its limitations (its lack of universality and accuracy, its 'hypostatization' and finally the overall methodological criticism). As a consequence, we shall show that this stance eventually led to his rejection of the phoneme (both in terminology and concept), which was never to find its place in Firthian linguistics and mainly put him at odds with the global

scientific community. However, long-term consequences tend to show that it definetly fostered the phonaesthetic aspect of Firth's theory and *prosodic analysis* which was to become one of the hallmarks of the then emerging London School of General Linguistics.

2. Firth's historiography of the phoneme

According to Firth, the popularity of the phoneme was dramatically increasing among worldwide scientists of the beginning of the 20th century (Firth 1955) but Firth seems to have kept his distance. The concept was all the more important that he integrated Daniel Jones' staff in the Department of Phonetics at UCL on his return to Great-Britain (1928).

As soon as Firth's first published work, *Speech* (1930), language is tackled through a historical perspective. Therefore it seems quite logical that his investigations on the phoneme should start alongside the same methodological approach.

In a short 1934 paper entitled 'The Word Phoneme', Firth enlarges on the phoneme theory, offering thus a historiography of the concept. He dates it back to the Kazan School, to Baudouin de Courtenay and more specifically to his pupil Nikolaï Kruszewski with the publication of his Über die Lautabwechslung (1881[1]). Firth also assigns the distinction between *sound*, *phone* and *phoneme* to Kruszewski though he does not relay the explanation himself. He then tries to establish parallels between Kruszewski's approach on the one hand and British phoneticians such as Daniel Jones and Henry Sweet on the other hand. He then expands the comparison to the main continental Schools (European and American).

This allows him to claim that the phoneme was implicitly present in the theories developed outside the Kazan School:

> *It [the phoneme] is implicit in Sweet's Broad Romic which dates back to about the same time as Kruszewski. It is implicit in many other orthographies.(…) Theoretically it appears in nuce in Jespersen's Lehrbuch, and also in de Saussure's Cours de linguistique générale, where something very like a complete theory appears on pp. 163-9. Similar notions can be found in the works of Sapir and Bloomfield. (Firth 1934c:2)*

Adding the Prague School and the Bloomfieldian perspectives to the viewpoints already mentioned allows him to develop a line for what he calls the *English School* (Firth 1934c:1), which was bound to become his *London School of linguistics*[2]" a few years later. This gives an overview on the up-to-date scientific knowledge that characterizes Firth and that Robins (1961:197) describes as 'astonishingly wide'.

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[1] The first publication in Russian dates from 1879.

[2] Durand & Robinson (1974:5) point out the ambiguity linked to the existence of two *London Schools*: D. Jones' in UCL (University College London), mainly devoted to phonetics, and Firth's in SOAS (School of Oriental and African Studies), committed to linguistics in a broader way. The irreconcilable position of both scientists concerning the phoneme theory confirms the necessity of such a dichotomy. Moreover, as Jones' School pre-existed Firth's one, the necessity to thrive may have implied a competition between both men and departments best enlarged upon in Collins & Mees' *The Real Professor Higgins: The Life and Career of Daniel Jones* (1999) (cf. Jones 1955, 1957).

As a conclusion to his article, Firth gives a warning on the importance of teminology and especially on the 'phoneme' word. He concludes with what may appear as a baffling question:

> *The meaning of any ordinary word is subject to change without notice,*
> *but technical terms must be handled in that way. Notice must be given.*
> *A word of warning would appear to be necessary with regard to the*
> *word 'phoneme'. What does it mean?*
> *(Firth 1934c:2)*

This question is but partly rhetorical. It stands just after an overview of the different acceptions (From the Kazan, Prague, Danish and American schools) of the concept of *phoneme* and Firth thereby sheds light on the difficulty to define a word, a terminology and even a concept so widely used and, to his mind, abused. Each and every linguistic school is indeed offering its own definition of the phoneme when there is no clear consensus over any of them. On the other hand, Firth hints at this topic regularly throughout his work (Firth 1935a:21, 1948b:126,147, 1957a:220, 1955:46) as if he were really looking for the answer to his own question.

This lack of consensus is also denounced by Twaddell (1935) and Jones (1944) when the latter points out :

> *A striking fact emerges, namely that we find no commonly accepted*
> *definition of what a phoneme is. Possibly it is indefinable like the fun-*
> *damental concepts of other sciences.*
> *(Jones 1944:1)*

3.   Firth's acception of the phoneme

It is quite complicated to write about *Firth's definition of the phoneme* since he does not give a comprehensive, clearcut account for the phenomenon.

It may be argued that this stance is voluntary in order to avoid adding yet another definition to those already worked out by other linguists, each and every school favoring its particular acception:

> *One after another, phonologists ad phoneticians seem to have said to*
> *themselves: 'Your phonemes are dead, long live* my[3] *phoneme!'*
> *(Firth 1948b:122)*

However, his own students and colleagues (Robins 1961:198; Bazell et al. 1966) point out to a general lack of clarity in his published work and to the too few writings he left:

> *He [Firth] was not, however, it must be admited, the clearest of writers,*
> *and one regrets the absence of a major book from him setting out in full*
> *and in detail his standpoint and his methods.*
> *(Bazell et al. 1966:vi)*

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[3]All the emphasis in Firth's quotation are his, except explicitly mentioned otherwise.

His writings merely consist in four main publications, namely:

- *Speech*, 1930 (preliminary statements about language for a non-academic audience).
- *The Tongues of Men*, 1937 (history of languages and language sciences for a non academic audience).
- *Papers in Linguistics 1934-1951*, 1957 (Firth's compilation of his first scientific articles up to 1951).
- *Selected Papers of J. R. Firth 1952-1959*, 1968 (posthumous compilation of Firth's later articles by F. R. Palmer).

Today these publications have been edited into three volumes. The first one (dating from Peter Strevens' 1964 edition) brings together the two first booklets, *Speech* and *The Tongues of Men*. The two subsequent volume contain the thirty or so articles Firth wrote. Some of these articles were published by Firth himself in 1957, whereas the later ones where published by F. Palmer who played the role of literary executioner. Among these lasts, certain articles had never been published until then.

Therefore, the reader has to explore, pick and mingle the elements meant to reconstruct somewhat of a definition in these scarce writings. Another difficulty lies in the evolution and sometimes even contradiction certain notions may have undergone as Firth's writings extend over a span of 30 years. It dramatically increases the difficulty to reconstruct a whole coherent theory. However, we can all the same find recurrent motives from which a general definition may be induced.

As for the *phoneme* Firth's writings point to:

- a 'functional phonetic unit'

> *This kind of functional phonetic unit has been termed a phoneme.*
> *(Firth1934a:3, 1930:171)*

- a vehicle of 'lexical and grammatical functions'

> *Most of the vowel-phonemes of English, for example, can be established by such lexical and grammatical functions*
> *(Firth 1934a:5)*

- an autonomous entity from what is called 'speech sound'

> *The distribution of phonemes and phoneme variants must account for all the speech sounds used by typical speakers in careful and in rapid speech.*
> *(Firth 1930:162–3)*

- a sum of sound variations depending on the context of the utterance

> *The phonetic amanuensis in striving to set on paper a collection of letters, dots, and other marks to represent exactly what he hears, may often miss the 'sound' the native speaker knows*

> *(or feels) he is using for a particular purpose in a particular con-*
> *text.*
> *(Firth 1934a:3)*

The closest match to a definition has actually more to do with an illustration of the phenomenon through the Tamil language than a real definition. It is, nonetheless, quite useful in order to bring the different elements altogether:

> *One of the functional units of Tamil, for example, is something which*
> *is not **p**, **t**, or **pp**, or **tt**, or even **kk**, but variously **k, g, c, ç, x, ɣ***
> ***(I.P.A.)**, according to context. This kind of functional phonetic unit has*
> *been termed a phoneme. (…) As an illustration of what is meant by*
> *a phoneme, we may take the Tamil **k**-phoneme above. The alternant*
> *phones **k1, k2, k3, k4, k5, k6** necessarily occurs under the conditions*
> ***x1, x2, x3, x4, x5, x6**, which are directly observable and definable in*
> *one style of speech of a certain type of speaker from a certain place,*
> *and can therefore be represented by the sign **k**. The term 'similitude'*
> *may be applied to the relations **k1:x17, k2:x27, k3:x37, &c.**, between*
> *the alternant phones and the determining conditions.*
> *(Firth 1934a:3–4)*

As illustrated above, the context of utterance plays a fundamental role in the phonological inter-pretation. It may act on a personal or sociological level, or as Firth calls it, on a 'situational' one, as in the expression *context of situation* he cherishes. This central notion of *context* appears to assure the consistency of his whole theory, known as *the contextual theory of language*, linking its different aspects (phonology, morphology, syntax, etc.)

To sum up, we may say that a phoneme is thus a functional phonetic unit that may take on lexical and grammatical functions and which is made up of sound variations relying on social or situational contexts. Firth establishes a total of 45 phonemes in English:

> *In English we have noticed twenty-five consonant and about twenty*
> *vowel phonemes.*
> *(Firth 1930:182)*

4.   *Limits of the phoneme theory*

Beside the lack of consensus over the definition of the phoneme, with each and every school offering an idiosyncratic vision (Firth 1934c:2, 1956a:99), Firth denounces a lack of univer-sality, especially concerning syllabic languages. He also points out to a lack of accuracy and the 'hypostatization' of the concept while also addressing a major point of criticism regarding methodology in the language sciences.

4.1. The lack of universality of the phoneme

Firth points out to the discrepancy between the phoneme and syllabic languages. In this stance, his oriental influence linked both to Firth's personal experience in India and Africa, and to SOAS, where he had been teaching since 1938 is obvious . To justify his point of view, he is referring to languages such as Sanskrit (Firth 1948b:125) and Southeast Asian languages among which Chinese (Firth 1953:32) and Japanese, which he taught as a *restricted language* during World War II (Firth 1934a:125, 1950b:182). Firth also relies on the knowledge linked to the linguistic crucible characterizing SOAS with all the oriental and African languages Firth encouraged his students to learn (e.g. Arabic for T. F. Mitchell, Ethiopian languages for F. R. Palmer, Japanese for Robins, etc.). This resulted in the claim:

> *Those of us in the London Group who have specialized in the South-east Asian languages and in Chinese are inclined to the view that the phoneme theory, whether of the Jones, Prague or American type, is not the best approach, either in principle or in notation for the phonological analysis of these languages.*
> *(Firth 1953:32)*

He also bases his reflection on the work of Samuel Haldeman (1857) concerning the study of Chinese and more specifically its *syllabic character*. The writings of Sir William Jones (Firth 1948b:125) on the *Devanagari system* and the *Arabic alphabet* also had a major influence. His conclusion is quite sarcastic and emphasizes the difficulty, if not impossibility, to delimit and identify a phoneme:

> *For the Sanskritic languages an analysis of the word satisfying the demands of modern phonetics, phonology, and grammar could be presented on a syllabic basis using the Devanagari syllabic notation without the use of the phoneme concept, unless of course syllables and even words can be considered as 'phonemes'.*
> *(Firth 1948b:125)*

Firth considers the inadequacy of the phoneme concerning these languages to be a fundamental flaw. This explains the absence of this concept in his everyday analysis whatever the origin of the definition and pushes him to find, or create, an alternative.

4.2. The lack of accuracy

For Firth, it appears clearly that the phoneme cannot give account for certain specific characteristics of the sound, especially concerning length, tone, stress and tensity:

> *Unfortunately in actual speech the substitution elements are not letters, but all manner of things we may analyse out of the living voice in action, not merely the articulation, but quite a number of general attributes or correlations associated with articulation, such as length,*

> *tone, stress, tensity. The phoneme principles enables the transcrip-*
> *tionist to get down formulas for pronunciation, but lengths, tones and*
> *stresses, and such substitution elements present many difficulties, both*
> *practical and theoretical.*
> *(Firth 1935a:21)*

To palliate these deficiencies, he notes the existence of different sub-categorizations such as the *chroneme* and the *toneme* coined by Jones in 1944 (Firth 1935a:21, 1955:38):

> *Incidentally, Jones was one of the first to use the expression 'environ-*
> *ment' in referring to the phoneme. In an article on chronemes and*
> *tonemes in Acta Linguistica, Volume IV, he describes phoneme vari-*
> *ants as being 'used in particular phonetic environments'.*
> *(Firth 1955:38)*

This necessity to resort to subcategorization is for Firth but another proof of the inedaquacy of the phoneme. Once again, languages such as Chinese may have fostered such an analysis because of the prevalence of tone in phonological contradistinction in that language.

4.3.   The hypostatization of the phoneme concept

The relationship between the phoneme and the written sign is also problematic. Authors such as Graff (1935) define the phoneme as a purely phonic element with no tangible materialization:

> *In contrast with the phone, therefore, the phoneme is an abstraction; it*
> *represents a psychological unit embracing a number of possible phonic*
> *varieties.*
> *(Graff 1935:93)*

This quotation is to be put into perspective with Firth's criticism pointing out the immaturity of the concept as it is developed and analysed in W. F. Twaddell's *On defining the phoneme* (1935):

> *It is all rather like arranging a baptism before the baby is born. In the*
> *end we may have to say that a set of phonemes is a set of letters. If*
> *the forms of a language are unambiguously symbolized by a notation*
> *scheme of letters and other written signs, then the word 'phoneme' may*
> *be used to describe a constituent letter-unit of such notation scheme.*
> *(Firth 1935a:21)*

In the usage Firth describes here, the reader is confronted with what he calls a 'hypostatization' of the concept (Firth 1935a:21, 1948b:126, 147, 1951a:220, 1955:46), applying the concreteness of the letter used for its transcription, the connotation of the corresponding sign interfering in its use. Commenting on 'the general theory of the phoneme', Firth explains that the matter has to do

with both the hypostatization of the letters and the linear character of Indo-European languages, raising once again the question of segmentation :

> *The linearity of our written language and the separate letters, words,*
> *and sentences into which our lines of print are divided still cause a*
> *good deal of confused thinking due to the hypostatization of the sym-*
> *bols and their successive arrangements.*
> *(Firth 1948a:147)*

As for him, the linear sequence of written signs characteristic of Indo-European languages does not systematically coincide with phonological segmentation and is therefore partly responsible for a certain confusion linked to that hypostatization phenomenon. Once again, the growing awareness over the limitations of his mother tongue (and its study) is interwoven with his deculturation and knowledge of oriental languages. It reveals a capacity to focus on his own language without necessarily considering it a central norm from which other linguistic specificities would then be analyzed as mere deviances.

4.4.   *A methodological criticism*

In Firth's point of view, the acknowledgement of characteristic recurring phonological contexts (that may concern phenomena such as recurring sequences, positions, phonic alternation...) should come first (Firth 1948a), even before the identification of phonemes. Contextualization is a fundamental analytic tool for the London School (Firth 1935a:21, 1952:19). This is true for phonology as well as any other level of analysis (syntactical, morphological, etymological, etc.) taking part in the spectrum of analysis. Firth gives a clear account of the way it should be applied to phonology:

> *Now take the English s-phoneme. To some phoneticians the English*
> *s is merely a hissing sound which has no variants. But the English s*
> *can occur in a large number of phonetic contexts. It may be initial,*
> *intervocalic, and final, preceded and followed by a variety of other*
> *phonemes.*
> *(Firth 1934a:4)*

Beside the immediate phonological context mentioned above, Firth alludes to a larger context transcending phonology which allows him to further assess the essentiality of the contextualization:

> *By contextualization is here meant, not only the recognition of the var-*
> *ious phonetic contexts in which the phonemes occur, but the further*
> *identification of phonemes by determining their lexical and grammat-*
> *ical functions. Most of the vowel-phonemes of English, for example,*
> *can be established by such lexical and grammatical functions.*
> *(Firth 1934a:5)*

Firth denounces its general absence from the mainstream linguistic analysis (1934c, 1935a, 1955), raising here a major methodological question, all the more important in that it will become one of the characteristics of the London School of Linguistics.

Though Palmer writes about 'the complete rejection by Firth of the phoneme as a satisfactory basis for phonological analysis' (Palmer 1968:8), Robins is more moderate in his analysis and considers that this rejection was only partial, and was mainly founded on the necessity to establish a dichotomy between transcription and phonological analysis:

> *Firth's opinion on the phoneme concept was simply that it was an excellent and even indispensable means to an adequate broad transcription, wherein the need to segment all the relevant phonic material was paramount, but that transcription and phonological analysis were two different things and not best served by the same methods.*
> *(Robins 1961:197)*

However, what Firth says or implies does not seem to corroborate such a nuance. In 'The word phoneme' (1934c), Firth does speak about an adequacy between broad transcription and the phoneme concept but rather by the implicit existence of the phoneme in the works of phoneticians such as Sweet resorting to broad transcription. This does not lead to the same implications, and most of all does not leave the door open to the acceptation or integration of the phoneme concept in his own theory. All these limits listed above eventually led to his confirming outcry:

> *The monosystemic analysis based on a paradigmatic technique of oppositions and phonemes with allophones has reached, even overstepped, its limits!*
> *(Firth 1948b:137)*

Regarding Firth, all the limitations listed above tend to explain why *the bell tolls* for the *phoneme theory*, to hint at the expression later used by Robins (1997) in his paper dealing with Firth's contribution to the field of history of linguistics. This definitely led to his rejection of the concept when Daniel Jones at UCL finally decided to resort to the phoneme, devoting to the concept his famous *The phoneme: its nature and use* (Jones 1955). These two diametrically opposed views epitomized the growing schism between both London schools, justifying the existence of each of them.

5. *Consequences of the rejection of the* phoneme theory

Firth's stance against the phoneme fostered two kinds of consequences. The short term ones consist mainly in a choice of terminological and conceptual tools as well as his overall alienation in the scientific world. The rejection of the phoneme eventually led to longer term consequences such as the development of the phonaesthetic aspect of his theory and of *Firthian prosodic analysis* which was to become the hallmark of the London School in phonology.

5.1.   Short term consequences

Based upon the limits mentionned above, Firth eventually decided to discard the phoneme terminology and resort instead to the term 'sound':

> *I have purposely avoided the word 'phoneme' in the title of my paper,*
> *because not one of the meanings in its present wide range of applica-*
> *tion suits my purpose and 'sound' will do less harm.*
> *(Firth 1948b:122)*

The word *sound* is therefore supposed to be devoid of many of the flaws characterizing the phoneme. More universal, as it appears to Firth, it also wards off what was just referred to as the hypostatization of the concept since *sound* makes it clear that we have to deal with an acoustic entity. Besides, it is a direct translation of Kruszewski's and Trubetzkoy's German *Laut* which gives the terminology a certain legitimacy.

However categorical his opinion might appear, Firth's statement should, nonetheless, be qualified here since he cannot banish completely the *phoneme concept* and terminology when exchanging with other scientists and seems aware of the limits of his rejection:

> *For my part, I would restrict the application of the term to certain*
> *features only of consonants and vowels systematically stated ad hoc*
> *for each language.*
> *(Firth 1948b:122)*

This position puts him at odds with general scientific trends, Palmer describing him as 'a voice crying in the wilderness' (Palmer 1968:1). However, this alienation from other scientists does not necessarily mean a less important role on the international scientific scene as Robins mentions in his obituary:

> *Though in academic life Firth was at the center of linguistic studies and*
> *linguistic interests in Great Britain, doctrinally he stood rather outside*
> *the stream of contemporary linguistics, both by his general approach*
> *to the subject and by the particular directions in which he sought to*
> *advance linguistic theory.*
> *(Robins 1961:193)*

Beside Firth's 'general approach' and 'the particular directions' that characterize him, we may add to Robins' quotation another factor to what he describes as Firth's 'apparent insularity' (Robins 1961:196). It is best developed by Palmer in the autobiographical article printed in *Linguistics in Britain: personal histories* (Brown & Law 2002):

> *I must, however, say that I got on well with Firth and that we remained*
> *on very friendly terms right up to his death in 1960. Yet I admit that he*
> *was brusque, often to the point of rudeness, and autocratic - especially*
> *on his demand that nothing should be offered to publication without*
> *being read and approved by him.*
> *(Palmer 2002:232)*

This aspect of Firth's temper is confirmed by Honeybone in Chapman and Routledge's *Key Thinkers in Linguistics and the Philosophy of Language* (2005):

> *Some recognise both malign and positive aspects of Firth's influence,*
> *describing him as autocratic and impolite. He controlled what most*
> *members of the London School could publish and suppressed linguis-*
> *tic ideas which he disapproved of, for example, the phonology done*
> *at UCL. This aggressive attitude, coupled with the need for personal*
> *contact to perceive his inspirationalness may have contributed to the*
> *waning of interest in Firthian ideas.*
> *(Honeybone 2005:83)*

As a concrete resurgence of such behaviour may be quoted Firth's ironical denunciation of the point of view exposed by Leonard Bloomfield in Language (1933) and more specifically the part phonemes should play in the structure of language, deliberately mocking Bloomfield's terminology:

> *He used the term 'structural order' in a different sense, but nowhere*
> *finds any technical use for the word system. The index enters phoneme*
> *and phonemic, but no phonemics or phonemicize and, we may be*
> *thankful, not re-phonemicize. Strange as it may seem there are only*
> *three entries for the word structure.*
> *(Firth 1955:38)*

Beside the sarcastic tone used by Firth, this quotation shows how much the terminology of the two contemporary scientists may have differed. The phoneme theory appears as the tip of the iceberg in the process, giving us a glimpse of only more profound disagreements on the structure of language and its study, thought as definitely polysystemic by Firth (1948b:121, 1952:24, 1955:43, 1957e:200).

Pointing out what Firth considers as complete nonsense stemming from the phoneme theory, he adds:

> *And yet, as we shall see, it is largely the later development of the*
> *phoneme theory which has provided most of the subject matter of struc-*
> *tural linguistics, especially in America, where linguistics is, to all in-*
> *tents and purposes,* phonemics, *with an additive* morphemics, *plus the*
> *supplementary amendments of* morphophonemics
> *(Firth 1955:40)*

The above quotation shows Firth's ability to play with words to imply meaning beyond their simple definition. In his view, the phoneme theory led to two major fields of study. The first one *phonemics* he denounces as irrelevant (as has been shown in this paper) and the second one, *morphemics*, he seriously compromises through his phonaesthetics approach, which implies meaning at a sub-morphemic level. The ultimate 'would be achievement' he describes, *morphophonemics* does not seem to be able to transcend the first two domains, as if getting involved in such studies definitely meant going around in circles, lacking in scientific developments and productive attitude.

As Robins puts it, 'Fortunately he [Firth] was not a recluse among scholars' (Robins 1961:199) and proof is given in the introduction to the *Selected Papers of J. R. Firth*, where Palmer relates a discussion between Bernard Bloch and Firth, anchoring both men in the contemporaneous linguistic debate. It shows how much Firth was a man of conviction, and that he is definitely willing to share and impose his ideas on other scientists:

> *Firth : 'The phoneme is dead.'*
> *Bloch: 'It's got a pretty lively ghost'*
> *(Palmer 1968:8)*

This talk is all the more relevant as both linguists are considered the authors of two of the three founding texts of auto-segmental phonology (Bloch 1948; Firth 1948b; Hockett 1955[4]). The titles of the articles in question, Bloch's 'A set of postulates for phonemic analysis' and Firth's 'Sounds and prosodies' are quite eloquent on the approach of both scientists and obviously prefigured the contrast opposing Bloch's 'phonemic' and Firth's 'sound'.

As far as auto-segmental phonology is concerned, it will be further developed by John Goldsmith in his Ph.D. thesis in 1976. It aims at representing phonological sequence by parallel linear lines (called 'tiers') describing different distinctive features, such as voice, ton, stress, length… So, finally, auto-segmental phonology is meant by Goldsmith to compensate for the lack of information conveyed by the phoneme, as denounced by Firth (1935a:21, 1953:28).

Firth's stance concerning the phoneme theory is not completely isolated since it echoes Jespersen's, whom he refers to regularly (Firth 1934c:2, 1935a:24, 1949:169, 1950b:179, 1951a:219, 1955:42, 1957b:139, 144). In *The Structure of Grammar* published in 1933, Jespersen refers to previous works:

> *Though I have not used the word phoneme and the new technical terms introduced by the recent "phonological" school developed especially in Prague–I think that I have done justice to the valuable theories advanced by that school, even more than in MEG [A Modern English Grammar 1909] and Lehrbuch der Phonetik, in which some of its points of view may be found in nuce.*
> *(Jespersen 1933:246)*

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[4] The three texts alluded to are: Firth, J. R. (1948b). Sounds and prosodies. *Papers in linguistics: 1934-1951*, Oxford University Press, pp. 121–138; Hockett, C. F. (1955). International journal of american linguistics. *A manual of phonology*, Waverly Press; Bloch, B. (1948). A set of postulates for phonemic analysis. *Language* 24:1, pp. 3–46.

It is quite interesting to compare Jespersen's quotation to Firth's in 'The word phoneme' (Firth 1934c:2):

> *As for the "phoneme idea", quite simply it must be regarded as implicit in the work of all phoneticians and orthographists who have employed broad transcription. (…) Theoretically it appears in nuce in Jespersen's Lehrbuch.*
> *(Firth 1934c:2, the same idea is developed again in Firth 1949:169)*

Firth literally makes Jespersen's words his own, up to the latin expression *in nuce*. It can scarcely be a coincidence in so far as Firth seems very familiar with Jespersen's work and the linguist himself. This may be explained on the one hand because of Jespersen's connections with British language scientists and especially Henry Sweet whom he was a student of, and on the other hand by an epistolary relation with Firth, at least during the 1920s, letters from which Vitoria Rebori (2002:177) found traces of in the SOAS archives.

In a similar way, Firth also mentions the distrust of Hjelmslev towards the phoneme concept. Though Firth claims he does not share Hjelmslev's 'fundamental assumptions' which he relates to saussureanism, he finds his 'quasi-mathematical approach excellent in that general quality' (Firth 1957a:127). As for Jespersen, Firth often quotes and discusses Hjelmslev's positions throughout his writings (Firth 1948a:140, 1951a:217–221,227–228, 1953:28, 1955:44–46, 1956a:101–103, 1957a:127) and more specifically that excerpt aiming at defining the language, whose fifth point specifically deals with phonemes:

> *(1) A language consists of a content and an expression.*
> *(2) A language consists of a succession, or a text, and a system.*
> *(3) Content and expression are bound up with each other through commutation.*
> *(4) There are certain definite relations within the succession and within the system.*
> *(5) There is not a one-to-one correspondance between content and expression, but the signs are decomposable in minor components. Such sign-components are, e.g. the so-called phonemes, which I should prefer to call taxemes of expression, and which in themselves have no content, but which can build up units provided with a content, e.g. words.*
> *(Hjelmslev 1947:78, as argued in Firth 1951a:220, 1955:46)*

Interestingly enough, Hjelmslev explains, concerning 'Structural Analysis of Language' , that he developed examples for a series of lectures he gave in the University of London and whose aim was to:

> *Throw light upon the five fundamental features which, according to [his] definition, are involved in the basic structure of any language in the conventional sense.*
> *(Hjelmslev 1947:78–79)*

Though no evidence could be found to confirm Firth's attendance to the lectures, it is more than likely that he must have known about them and their content one way or another, all the more so as he quotes specifically that excerpt.

It seems clear that, for Hjelmslev, the phonemes or taxemes of expression are associated with the sign. He thus confirms Firth's fear concerning the ambiguity of the alphabetic sign to stand for an acoustic element.

We actually find traces of similar reaction to the phonemes in the literature. Firth often refers to Trubetzkoy and his *Grunzüge der Phonologie* (Trubetzkoy 1939). It happens that one of Trubetzkoy's letter to Roman Jakobson relates to what happened after the Second International Congress of Phonetic Sciences held in London, from July 22nd to 26th 1934 under the Presidency of Daniel Jones:

> *After the farewell dinner, several members of the Congress produced*
> *pieces for entertainment, the one a humorous speech, the other a comic*
> *song. Under the present circumstances, it should be noted that the word*
> *phoneme always produced unanimous bursts of laughter. Horn read*
> *a poem in Middle English of his own invention, which described the*
> *Congress and ended with the following words :*
> > *wat is phonemes, wat is sunds*
> > *twelf men haf twelf difinitiuns.*
> *After that everyone quoted these lines, drawing unanimous applause.*
> *(Letter 149, 3–4 August 1935, Trubetzkoy & Jakobson 2006:344)*

This confirms the distrust and mockery the phoneme concept might arouse but also the problem linked to the multiplicity of definitions already mentioned here.

Such a story also tends to show that Firth was not completely 'a voice crying in the wilderness' as Palmer wrote it (Palmer 1968:1) but may have found isolated echos on the international scientific scene, as has been proven by the above quotations of Jespersen, Hjelmslev and Trubetzkoy.

5.2.   Long term consequences

To these short term consequences may be added longer term ones linked to Firth's conceptualization of language (through phonaesthesia) and its epistemology (prosodic analysis). Indeed, when Firth finally decided to reject the phoneme, he put forward many limitations, which he tried to make up for in his own theory of language. Its phonological aspect then aims at proposing an alternative conception of language and tools that may account for its phonological structure beyond the phoneme unit.

In the introduction to the *Selected Papers*, Palmer identifies the complete rejection of the phoneme as a catalyst for the *prosodic analysis approach*:

> *The starting-point for the prosody was essentially the complete rejection by Firth of the phoneme as a satisfactory basis for phonological analysis.*
> *(Palmer 1968:8)*

This seems to be confirmed by Terence D. Langendoen in his *The London School of Linguistics* (1968) though it is generally perceived as a staunch criticism on Firthian linguistics and arose a few reviews (Robins 1969; Lyons 1969) denouncing among other things the Chomskian commitment of the author:

> *Actually, three stages in Firth's thinking on phonology can be distinguished. In the earliest papers in the early 1930's he propounded essentially orthodox Daniel Jones phonemics. By 1935, however, he had come to a position roughly equivalent to that of W. F. Twaddell in the latter's On Defining the Phoneme. Finally in 1948 he published an account of his theory of prosodic analysis, which in essence is very much like Z. S. Harris' theory of long components first expressed in 1945.*
> *(Langendoen 1968:5)*

Despite his controversial explanation of Firth's linguistic theory, Langendoen points out to the same sequence of events as Palmer: his position concerning the phoneme is seen as the stepping stone towards the development of this own approach, namely *prosodic analysis*.

   This approach is the province of the London School of Linguistics and as Robins points out, the phoneme soon became completely incompatible with the prosodic approach and therefore with the whole School:

> *Nor was sufficient attention paid to questions about the relations between prosodic theory and phonemic theory (or theories), and indeed the opinion gained ground that to anyone at all sympathetic to prosodic analysis the phoneme and all its works were dead and probably damned as well.*
> *(Robins 1961:196)*

Therefore, Palmer's assertion can be developed even further since this refusal of the phoneme theory to the benefit of the prosodic analysis may be seen as one of the first key steps marking the birth of Firth's London School of General Linguistics (at SOAS from 1938 on), taking its scientific independence through a definitive schism from Jones' London School of Phonetics at UCL on the central theme of the phoneme.

6. Phonaesthetics

Firth's handling of the so-called 'phoneme theory' is all the more interesting that it reflects his general point of view on language and its study. As for him, meaning is the main concern of the linguist:

> *This could only be the case if, as I have frequently emphasized, linguistics recognizes that its principal objective is the study of meaning in its own terms (Firth, 1950, 8-14; 1951, 182-4; 1951, 118).*
> *(Firth 1957b:145)*

Moreover, meaning must be sought 'at all levels of linguistic analysis' (Firth 1951b:192) through the context of situation. In this, the phoneme definitely failed to convince him. This explains that Firth comes to develop the concept of phonaesthetics as soon as 1930, which he defines more precisely in 'Modes of meaning':

> *There is, therefore, an association of social and personal attitude in recurrent contexts of situation with certain phonological features. (...) In previous discussion of this mode of meaning, I invented a word, phonaesthetic, to describe the association of sounds and personal and social attitudes, to avoid the misleading implications of onomatopoeia and the fallacy of sound symbolism.*
> *(Firth 1951b:194)*

To give a concrete instance, *sl-* in 'slug', 'slope', is, according to Firth, linked to a 'pejorative context of experience' and to salivation (Firth 1930:184; 1935b:44; 1956d:92). However, it must be noted that, despite his desire to depart from the phoneme, Firth eventually defines the ''dark' l sound' phonaestheme that appears in words like 'wobble', 'fiddle' (in frequentative, iterative, and diminutive actions) by explicitly resorting to the phonemic terminology as soon as its designation. (1930:193).

Phonaesthetics, the study of phonaesthesia, thus gave birth to a total of 37 phonaesthemes among which 28 *chiming* ones (*bl-, br-, dr-, dw-, fl-, gl-, gr-, kl-, kr-, kw-, pl-, pr-, sh-, sk-, skr-, skw-, sl-, sm-, sn-, sp-, spl-, spr-, st-, str-, sw-, tr-, tw-, w-*) and 9 *rhyming* ones (*-er, -ick, -ip, -irl/-url, -isk/-isp, -l, -oop, -rawl, -ump*) thereby combining sounds with meaning on a sub-morphemic level.

Phonaesthesia definitely jeopardizes the status of the morpheme as *a minimal unit of meaning* (Bottineau 2008) as it was defined since Baudouin de Courtenay (1895:10; cf. also Bloomfield 1933:166)

Though phonaesthetics proved to be a major contribution for the London School of Linguistics, fostering future corpus studies because of its predictive nature, Firth does not quite solve here all the problems he denounced regarding the phoneme, such as its hypostatization since the phonaestheme seems as deeply linked to the graphic sign as the phoneme.

However, phonaesthesia presents the advantage of being based on the 'phonetic habits' (Firth 1930:180–188) and thus on the context of utterance and of situation.

Phonaesthesia may also be isolated both in Indo-European languages and in syllabic ones:

> *I have collected hundreds of examples of such sound-patterns in Ger-*
> *man, Dutch, and the Scandinavian languages and tested them in con-*
> *sultation with native students. Many more also from Indian and other*
> *Asiatic languages collected either during residence in Asia or from stu-*
> *dents in England.*
> *(Firth 1935b:45)*

Phonaesthesia is an important aspect of the european languages explicitly mentioned here and to which English should of course be added. This phenomenon also occurs in asiatic languages. Among these stand out Indian languages Firth wrote a lot about (1933, 1934b, 1936, 1938, 1939, 1942, 1944, 1950a, 1956b, 1956c, 1957c) and the Japanese language (Firth 1948b:125) he taught as a *restricted language* during World War II.

7.   *Conclusion*

Firth's questioning of principles taken for granted by early 20th century occidental linguists led people to doubt and take enough distance to envision the limitations of some widespread concepts, such as the phoneme. As Palmer writes, Firth simply made people think:

> *His greatest achievement was perhaps simply that of making people*
> *think again and refuse merely to accept traditional approaches to lan-*
> *guage, by, for instance, questioning the value of normative grammar*
> *and the validity for language study of the dualism of mind and body.*
> *(Palmer 1968:1)*

Besides Firth own knowledge, his aptitude for fostering academic reflection and for encouraging both his colleagues and students is a recurring motto in all testimonies (Palmer 1968:1; Robins 1997:67).These traits seem to have contributed largely to his reputation. His academic formation in history and his experience both in India and in Africa during World War I are definitely complementary. They allowed his acception of language to transcend both his time (the 20th century) and his cultural identity (Englishman studying his own mother tongue) accounting for his own approach of both language and its epistemology. In this regard, he fulfilled his desire for de-culturation' (Rebori 2002:171). This idiosyncratic perspective led him to take up a position on significant matters such as the phoneme concept which, as has been shown in this paper, played the role of a catalyst for the development of his linguistic theory. Finally, it also had a great impact beyond the circle of Firth's department at SOAS. As a short-term consequence, the phoneme marked the rupture between Daniel Jones' approach and Firth's. On the other hand, it fulfilled the necessity for Firth to assert himself as an alternative in terms of scientific representation and academic formation for students. Moreover, it fostered the creation of the phonaestheme which appears to be, in Firth's view, an answer to the phoneme theory. *Phonaesthesia* may be analyzed as the adaptation of Firth's *contextual theory of meaning* on the phonological field, just as *collocation* and *colligation* (key notions that appear as soon as

1951b) embody the direct application of that same *contextual theory of meaning*, respectively in the lexical and grammatical spheres. This recurrent holistic scheme, initiated with the dynamics of the phonaesthetic theory as a reaction to *the phoneme theory*, would constitute the specificity of what would later be called *Firthian linguistics* in the 1960s.

Therefore in the long term, the *phoneme theory* can be argued to have fostered an idiosyncratic theory of language, a hallmark of an emerging independent school of thinking, i. e. the London School of Linguistics. Further yet, the consequences on British general linguistics operate on two levels: the influence on many scientists, beginning with the members of the London School (Halliday, Robins, Palmer, Sinclair, Leech…) and, most of all, the first chair of General Linguistics at SOAS granted to Firth in 1944.

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