

# DANIEL JONES, THE PHONEME AND THE 'JONEME'

by

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This paper traces the contribution of Daniel Jones (1881-1967) to the development of the phoneme concept during the early twentieth century. It reveals Jones's preoccupation with eastern religions, in particular as these were interpreted through the cult of theosophy. Evidence from Jones's published and unpublished work demonstrates that his religious beliefs may be pertinent to an understanding of certain significant facets of his idiosyncratic view of the phoneme.

## 1. *Introduction*

Many critics (see Section 5 below) have claimed that Daniel Jones (1881-1967) was interested only in a limited practical view of the phoneme – a conception which excluded theoretical approaches, the whole being based exclusively on phonetic and distributional criteria, and capable of being dismissed disparagingly by the joke term 'Joneme' (Abercrombie 1983:8).<sup>1</sup> In this paper, we attempt to show that even though these criticisms might justifiably be applied to his actual definition, Jones was in fact surreptitiously indulging in his own brand of theorising – linguistic and non-linguistic.

## 2. *Jones and the development of phoneme theory*

Jones never made claims to having played any role in actually devising the phoneme concept. As he states explicitly in his brief, but salient, résumé *History and Meaning of the Term 'Phoneme'* (Jones 1957, henceforth *HMTP*), he merely absorbed and passed on the work of others. Early in his career, Jones had been profoundly influenced both by Henry Sweet's (1845-1912) notions with regard to broad and narrow forms of transcription and the similar ideas of the French phonetician, Paul Passy (1859-1940). As early as 1888, Passy (whom Jones regarded in many ways as his mentor) had produced what he termed a 'règle d'or' for phonetic transcription: 'ne noter dans les textes que les différences significatives' (quoted in *HMTP*:5). Sweet never used the word 'phoneme', while Passy (according to Jones,

*HMTTP*:4) appears to have employed it in print just once, late in life, but nevertheless the essentials of the phonemic principle are apparent from their writings, and were absorbed by Jones. Consequently, he was ready to accept a more developed presentation of the idea once he encountered the work of the Kazan' School linguists, Jan Baudouin de Courtenay (1845-1929) and Nikolaj Kruszewski (1851-1887), who had discovered the concept of the phoneme, and used the word more or less in the present-day sense.

Baudouin was based at the distant University of Tashkent in central Russia, but Jones got to know of his and Kruszewski's thinking through reading the work of Lev Ščerba (1880-1944), who had been Baudouin's pupil (Ščerba 1911); Jones later supplemented this by discussions with the Polish linguist, Tytus White Benni (1877-1935), who visited London around 1913. In fact, the full import of the idea apparently took a little time to sink in. Nevertheless, Jones claimed that as early as 1915 the phoneme concept was in everyday use in his department at University College, London (*HMTTP*:6). The *Sechuana Reader* (Jones and Plaatje 1916, henceforth *SR*) shows Jones and his co-author working implicitly within the phoneme principle, though refraining from using the actual word. In this little book, which is full of innovative ideas, Jones talks of 'significant [sound] distinctions', and relates these explicitly to change of meaning (*SR*:xi, xiv).

### 3. *The Philological Society Lecture*

In 1917, Jones was invited to give an address to the Philological Society about his research on Tswana (henceforth *Philological Society Lecture*).<sup>2</sup> This was an important event in the history of Western European linguistics, for it was the first-ever recorded use of the term 'phoneme' in a public context in the English-speaking world. However, an important section in the lecture concerning the general concept of the phoneme was deleted from the published version, as Jones himself recalled forty years later in *HMTTP*, where he states (pp. 9-10):

I should like to put on record the fact that the first occasion on which I employed the term outside the class-room or in private conversation with my colleagues was in a lecture on *The*

*Sechuana Language* given to the Philological Society on 4th May, 1917. Unfortunately the part of that lecture dealing with the general conception of the phoneme was omitted from the *Proceedings*. It may therefore be of some historical interest, as exemplifying the state of our knowledge of the phoneme at that date, if I reproduce here the words I used on that occasion. They are copied from the lecture notes which I happen to have kept.

Examination of the manuscript of the lecture, now in the archives of the library of University College London, proves the complete validity of Jones's statement.<sup>3</sup> Yet, just why Jones allowed such an important part of his address to be left out of the published transactions (Jones 1917) appears at first sight a mystery. However, it is likely that he later felt unhappy with his definitions and so chose to edit the published text by simply omitting the whole portion concerned – rather than by tampering with the record of a public lecture, which he would have considered dishonest. It is significant that a marginal note in the Philological Society Lecture manuscript states 'terminology unsatisfactory', and that when he published the section in *HMTTP* he provided both an exact reproduction of what he had said (taken from his notes) plus footnotes to accommodate his later reassessment of his former views.

Nevertheless, the diffident phrasing that Jones uses in *HMTTP* could be thought to imply that the published Philological Society Lecture contains no reference to the phoneme at all. But this is far from the truth. Even in its truncated form, the report of this lecture provides numerous examples of the first recorded uses of the term in English, and, furthermore, a brief definition (p. 99):

The Sechuana language appears to contain twenty-eight phonemes, i.e. twenty-eight sounds or small families of sounds which are capable of distinguishing one word from another.

The Philological Society Lecture contains in fact the first explicitly phonemic analysis published in English of any language. It discusses Tswana vowels and consonants in terms of the phoneme concept, mentioning variation dependent on phonetic context, and using the actual word 'phoneme' on seven occasions in total. The report of the lecture that appears in the *Transactions of the Philological Society*, incomplete though it is, conclusively shows that Jones has to be

recognised as the first Western European linguist actually to employ the word 'phoneme' in the present-day sense in a publication. Jones was promulgating the concept well before others in the West caught on to it – at least a decade, for instance, before the American structural linguists' long drawn-out preoccupation with the topic in the thirties and the forties.

#### 4. Definitions of the phoneme

Two years later, in the *Colloquial Sinhalese Reader* (Perera and Jones 1919, henceforth *CSR*), Jones and his co-author redefined the phoneme in terms very similar to those he would adhere to for the rest of his career, namely (*CSR*:2):

...a group of related sounds of a given language which are so used in connected speech that no one of them ever occurs in positions which any other can occupy.

This is illustrated with what has later come to be regarded as almost a canonical exemplification, followed by a statement of the implications for transcription:

Thus the k's in the English words *keep*, *call*, are distinct speech-sounds, but they belong to the same phoneme (the English k-phoneme). This is because the first variety of k only occurs before the sound i:, and the second does not occur in that position in English. The two kinds of k can without ambiguity be written with the same letter (k) in phonetic writing.

Jones had thus arrived at the dual criteria of phonetic similarity and complementary distribution – although the latter term is a structuralist usage which Jones accepted for the first time only in *HMTP* (p. 8) – whilst at the same time being unwilling to take on the validity of 'free variation' within a phoneme definition (*HMTP*: 8 n.). Phonetic similarity and complementary distribution were to be the cornerstones of Jones's form of phonemic theory. Meaning as such was excluded from his definition, but, nevertheless, Perera and Jones go on immediately in *CSR* to specify the semantic function of the phoneme in distinguishing word meanings, as opposed to 'speech

sounds' belonging to the same phoneme (i.e. allophones), which cannot distinguish one word from another. Jones reiterated these views in similar terms in 1923 in the *Pronunciation of Russian* (Trofimov and Jones 1923:50), adding that phonemes should be regarded as 'distinctive' and such a distinction could be said to be 'significant'.

After 1925, the concept of the phoneme began to play an increasingly significant role in Jones's thought, as is reflected in the number of articles which he published on this theme. 'Definition of a phoneme' (Jones 1929) is an attempt to clarify the statements which had been made in the *Pronunciation of Russian*. In essence, this repeats his 1923 position, but he admits that 'it doesn't seem possible to give in a single sentence a comprehensive definition which leaves no loopholes for misunderstandings' (Jones 1929:43). It is in this article that he first introduces his restriction of a 'language' to 'the speech of a single individual speaking in one particular style' (p. 44). He also emphasises his distinction between his 'essentially... phonetic conception' and the fact that substitution of one phoneme 'for the other in a given situation *may* alter the meaning'.

Jones (1931:74), 'On phonemes', provides a definition which emphasises once again the significance of phonetic similarity and complementary distribution:

...a family of sounds in a given language, consisting of an important sound of the language together with other related sounds, which take its place in particular sound-sequences.

He supplies extensive exemplification of these features from numerous languages. As in Jones (1929), the semantic function of the phoneme is regarded as a consequence of the above and emphatically not a part of the definition itself. The same approach figures in his 'Theory of phonemes and its importance in practical linguistics' (Jones 1932), the paper which he gave to the First International Congress of Phonetic Sciences at Amsterdam. This very brief treatment is written on similar lines to his previous phoneme articles but is significant for taking the definition one stage further, stressing the importance of the word as a phonological unit (p. 1):

...a family of sounds in a given language, which are related in character and are such that no one of them ever occurs in the same surroundings as any other in words.

In addition, this paper introduces the concepts of the 'diaphone' and the 'variophone'. The diaphone represents the range of sounds heard as realisations of a particular phoneme across language varieties, for example between different regional dialects. The variophone covers the possible variation in the realisation of a phoneme within a single idiolect – similar to the concept of 'free variation'. Both of these terms were eventually to be treated at greater length in *The Phoneme: its nature and use* (Jones 1967<sup>3</sup> [1950], henceforth *The Phoneme*).

In 'Some thoughts on the phoneme' (Jones 1944:134), Jones finally arrives at the following often quoted definition of the phoneme:

...a family of sounds in a given language which are related in character and are used in such a way that no one member ever occurs in a word in the same phonetic context as any other member.

This statement was later repeated word for word in all editions of *The Phoneme*, including the last revised edition, which appeared in 1967, the year of Jones's death (*The Phoneme*<sup>3</sup>:10). One may therefore assume that it represents his definitive viewpoint on the central issue of a phoneme definition.

Jones thus in reality made no substantial changes in his view of the phoneme after 1923, although he did make alterations in his definition. These were largely a matter of tightening up the wording – 'a progress towards precision', to quote the words of Twaddell (1935:64). In fact, to some extent, he even questioned the possibility – though not the value – of a formal definition. In 'Some thoughts on the phoneme', Jones (1944:121) states:

Although I believe phonemes to be undefinable, like the fundamental units in other sciences, it is nevertheless needful for the purposes of linguistic study to examine in some detail the nature of these elements, and if possible to produce a so-called 'definition' of the phoneme of a more precise kind...

### 5. Criticisms of Jones's approach

Discussions of Jones's contribution to the development of phonemic theory usually centre around the criticism that he promulgates an essentially practical view of the phoneme, tied closely to his experience as an articulatory phonetician, the demands of language teaching and the construction of transcriptional systems. It is often opined that he thereby misses the greater flexibility of more theoretical approaches; see for instance, Robins (1979:215), Fischer-Jørgensen (1975:50-58), and Anderson (1985:175-176). But it should not be imagined that Jones was unaware of the limitations he was setting himself. Both in his early definition of 'significant' sounds in *SR* and also in his first public references to the phoneme in the Philological Society lecture (Jones 1917), he had defined the concept with reference to the meaning of words (see Section 2 above). In *HMTF* (p. 9) he states that he regards both views – which he terms the 'physical' and the 'psychological' – as equally tenable:

In fact, when it became necessary for me to come to a decision between the two, I found it in the end impossible to escape the conclusion that the physical view of the phoneme is on the whole better suited to the needs of ordinary teaching of spoken languages and...for those who are called upon to reduce to writing languages hitherto unwritten or to improve upon existing unsatisfactory orthographies. I find the physical view more easily comprehensible to the ordinary student of languages than any other. At the same time I do not hesitate at times to resort to psychological criteria.

Anderson (1985:176) claims that Jones did not eliminate meaning from his definition for the reason that the American structuralists later did, namely 'from a general rejection of meaning as a valid linguistic category', but rather 'from considerations of conceptual clarity'. Jones himself admitted that he was in many ways attracted to a far more abstract psychological view of the phoneme as a 'mental image', similar to that originally propagated by Baudouin (*The Phoneme*:213). This decision to exclude meaning from his primary definition of the phoneme (and yet to include it as an appended elaboration) has been explained by commentators, for instance

Krámský (1974:151), as being merely a result of Jones's phonetic training and background:

Daniel Jones was a phonetician and that explains why he regarded as the main object of grouping the sounds of a language together into phonemes the establishment of the simplest systems of phonetic transcription for every language.

### 6. *The influence of theosophy*

Whilst there is undoubtedly something in the idea that Jones, working mainly within a framework of articulatory phonetics, would regard the physical production of sounds, together with their auditory characteristics, as being decisive in the establishment of phonemic differences, nevertheless his phonetic training, and his main aims of establishing transcription systems for language teaching, do not completely account for his decision to view the phoneme in the way that he did. In fact, the experience of many teachers of applied phonetics would confirm that there is a very good case to be made, in terms of a pedagogic strategy, for confronting students with a definition of the phoneme dependent on word meaning. Putting all theoretical considerations to one side, it is not unreasonable to claim that this is the most successful way of bringing across the phoneme concept to students needing phonemics as a practical tool for transcription and language learning.

Could there have been another influence at work which persuaded Jones to frame his definition of the phoneme in the way he did? It is noteworthy that the period between 1916, when *SR* was published, and 1919, when *CSR* appeared, was also the time when Jones was beginning to take considerable interest in eastern religions – something which was to be an increasingly dominating force as he grew older. From early in his adult life, Jones had been dabbling in such ideas, being drawn, more particularly, to theosophy, a modified form of Hindu and Buddhist doctrines with much Western re-interpretation.

Jones probably encountered theosophical ideas for the first time when he went to France in 1904, where he was taught phonetics by Sophie Lund (1870-1948), herself a confirmed theosophist (Jones 1948b).<sup>4</sup> He returned to England in 1906 and met Henry Sweet for

the first time at an Edinburgh vacation course in 1907, whereupon he asked the famous phonetician to take him on as a private pupil.<sup>5</sup> Sweet, as Jones himself has pointed out in private correspondence (see below), was not only fascinated by the linguistic contributions of the ancient Indians, but also by Hindu philosophy and religion, and certainly appears to have discussed these with Jones. Later reinforcement of Jones's inclination towards eastern religions could have come from an extensive tour of India made in 1912.<sup>6</sup> Jones soon after became more deeply involved in theosophical notions; one piece of evidence for this is a draft manuscript of a lecture given in Zürich in 1946, which was later to emerge as his historiographical piece, 'The London school of phonetics' (Jones 1948a). Comments, deleted from the version eventually published, reveal that, by 1917, Jones, 'influenced by things of the mind and spirit', had come to regard his work in phonetics 'as a sort of mission'.<sup>7</sup>

Jones never formally joined the British Theosophical Society; yet, such a detached position was not at all unusual and the official theosophists were in fact rather proud of the large number of sympathisers at the fringes of their movement. In Jones's case, non-membership may have indicated either his own doubts about any type of organised religion or his more direct concerns about the sincerity of certain persons at the centre of the British theosophical movement. Like many other theosophists, Jones eventually became disillusioned with the personality cult around Annie Besant (1847-1933), the leader of the movement in Britain, and with the apparently corrupt activities of some of her immediate followers. He made this point in the letter mentioned above discussing Sweet's philosophical interests, stating that the latter had taken an interest in theosophy 'before distortions of the original teachings began to creep in'.<sup>8</sup>

### 7. *Evidence in published works*

Jones therefore seems to have had theosophical concepts at the back of his mind from the very start of his career. In considering how to define the phoneme, Jones might have decided to exclude semantic concepts and any type of mentalistic approach (such as that favoured by Baudouin and his followers) because reconciling such ideas with theosophical principles would lead to a statement which was too

involved and controversial to function as a good working definition. Now, if Jones was indeed much influenced by theosophical concepts, it would be reasonable to expect there to be some confirmation of this in his published works. In fact, although it has been almost completely overlooked, or ignored, by critics and historiographers, such evidence is manifestly there for all to see. Yet, because the theosophical piece of the jigsaw has remained hidden till recently, being disclosed in Jones's lifetime only to his immediate family and intimate acquaintance, it is an aspect of Jones's views on the phoneme which seems to have received no attention in published critiques.

It first comes to the fore in the paper 'Concrete and abstract sounds' (Jones 1938), which Jones read at the Third International Congress of Phonetic Sciences at Ghent. Here, Jones attempts to apply a philosophical theory of 'abstractness' to the idea of the phoneme, linking this ultimately to ideas on the nature of human existence. The Ghent paper is seemingly the first clear-cut stated evidence of Jones's predilection for theosophical ideas, and, indeed, its contents cannot be interpreted without recourse to such concepts. Jones takes here a favourite theme of theosophical work – the relationship between the physical material world and the non-physical world of abstractions. He draws upon a frequent theosophical device to illustrate the relationship between the physical and the non-physical – the analysis of emotional states, such as anger. Jones borrowed the framework of ideas from the Japanese linguist, K. Jimbo, as interpreted by Jones's own former colleague, Harold Palmer (1877-1949), who was then based in Japan (Palmer 1930:39-48). Speech sounds are classified into a model of four degrees of abstraction (Jones 1938:2-6), which may be put in the following form (condensed from Jones's own presentation).<sup>9</sup>

Concrete sounds: the individual sounds actually uttered by a speaker.

1st degree of abstraction: sounds pronounced by an individual in a similar manner (or 'speech-sounds').

2nd degree of abstraction: phonemes as realised by a single speaker.

3rd degree of abstraction: phonemes as realised by a group of speakers of similar speech style (or 'diaphones').

4th degree of abstraction: wider differences in sound quality or usage of phonemes (or 'diaphonemes').

It is worth noting that the idea of classification in layers of progressively more abstract systems is a commonplace in theosophical thinking (see, for example, Besant 1897:passim; Leadbeater 1907:passim). Jones (1938:6) sums up finally in these terms:

Lastly, the categories have, in my view, an importance for the development of the general theory of sound. I have put before you the suggestion that abstract sounds (at any rate those of the 1st degree) are really in perpetual existence. We are not perpetually perceiving them objectively, but this is because most people are only conscious of one dimension of time. We have, however, means of projecting these perpetually existing sounds into our one dimension (by 'making concrete sounds').

As indicated above, Jones was normally most circumspect about linking his profound interest in theosophy with his professional career in phonetics. But the late thirties was a period of deep involvement with theosophy and eastern religions, which affected his whole private life (Collins and Mees, forthcoming), so it is perhaps not so surprising that such ideas creep into his work. In the closing section of his paper, Jones (1938:6-7) gives the clearest statement of his theosophical beliefs to be found in his writing:

Perhaps in the distant future the human race may develop a faculty of consciousness in two or more time-dimensions. There appear to be in fact already a few people who have some sort of conception of such dimensions. And besides it is to me, and no doubt to others, very unsatisfactory to envisage an eternity of time in a single dimension; it seems to me that one gets a much more hopeful view of life if one expects some ultimate expansion of consciousness which will include other dimensions of time, and in which therefore abstract sounds will be concrete. Of course in such a state of existence communications by sound would be carried on in some new way, and there would doubtless be a science of super-phonetics which we need not speculate about at the moment.

Looking back, it is indeed interesting to speculate on what the linguists gathered in Ghent would have made of all this. In fact, Jones probably left his audience (apart possibly from the odd fellow

theosophist) completely puzzled. The 'few people' alluded to here appear to be the group of 'adepts' (referred to by theosophists as the 'Masters' or the 'Brothers') who, it was asserted, have managed to reach a semi-immortal state of existence from which they were capable of exerting tremendous influence on human affairs (see Besant 1897:3-4 and *passim*; Humphreys 1966:*passim*). Jones states openly that he feels that the phoneme is 'one aspect of phonetics [which] leads in the direction of metaphysics into regions which merit profound exploration' (Jones 1938:7).

In 1950, Jones was to return to these ideas in the book which he himself considered to be his magnum opus, and to the writing of which he devoted no fewer than thirteen years of his life – *The Phoneme* (p. vi). The concluding paragraph of the preface of that book states that 'phoneme theory has a certain bearing upon philosophy, and in particular upon questions relating to the "existence" or "non-existence" both of material phenomena and of ideas' (p. vii). In fact, Jones's theosophical background may account for his insistence on the split between the totally practical definition of the 'physical' phoneme and the possibility of expansion along numerous lines of thought to account for the linguistic function of the phoneme – including the invocation of meaning, the 'psychological' concept of the phoneme, and the elaboration of various abstract phonemic concepts as indicated above. Such a split would reflect the division between the materialist nature of the everyday world and the multi-layered spiritual planes of existence postulated by theosophists. Chapter 29 of *The Phoneme*, 'Mentalistic and functional conceptions of the phoneme', begins with a survey of ideas of the phoneme which are alternatives to the strictly physical view Jones proposes earlier in the book. He first considers the mentalistic views of the phoneme as an 'abstract' or 'ideal' sound or a target at which the speaker aims. Jones then provides a brisk survey of the views of Baudouin de Courtenay, Sweet, Sapir, Trubetzkoy, Bloomfield, Twaddell and Hjelmslev, anticipating the fuller treatment later to be found in *HMTP*. The chapter concludes with Jones indulging in curious mystical speculation, the content of which (as with 'Concrete and abstract sounds') can only properly be interpreted when considered against the background of his theosophical convictions (p. 217).

I submit that it is incumbent on us to keep an open mind on all these matters, and to give special attention to the possibility that the phoneme may after all prove to have an 'existence' of some kind, which may become evident in a remote future, if, as is thought by some, evolution brings with it a further development of men's faculties, giving them a clearer perception than most of us at present possess of a fourth dimension of space or a second dimension of time.

Jones's personal philosophy is again revealed later in the book, where, in his introduction to Chapter 30 – entitled 'The practical use of the theory of phonemes' – he argues (pp. 217-218) that 'every man is endowed with certain abilities which he can use for the general good' and that those with an ability in applied phonetics (by which, of course, one must infer Jonesian articulatory phonetics) are especially capable of 'doing "useful" work..."conducive to the ultimate well-being of humanity.'" Jones emphasises his essentially practical view of his discipline, regarding it as being a particularly beneficial science since it can be used to improve human communication. Such portions of *The Phoneme*, together with 'Concrete and abstract sounds', provide the clearest evidence that Jones was attempting to forge a link between his academic, i.e. existential, interest in phonetics and linguistics and his spiritual preoccupation with philosophy and transcendentalism, as interpreted through theosophy. That link was the phoneme.

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#### Notes

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2. Delivered at the Philological Society, 4 May 1917. The language Tswana, spoken in South Africa, was formerly known as Sechuana.
3. Daniel Jones Collection, University College London Library.
4. Jones's obituary refers to Lund's 'wisdom and uncommon philosophical insight'. That these were of a theosophical nature was confirmed by Mrs Meryl Phillips (tape-recorded interview, 12 October 1983). Sophie Lund's special relationship with Jones and his family is underlined by the fact that she later lodged with him and his wife for no less than twelve years, from 1923 onwards (see Collins and Mees, forthcoming).
5. Daniel Jones, letter to L. van Buuren, 24 December 1964. We are grateful to Luuk van Buuren of the University of Amsterdam for permission to view this correspondence.
6. See Collins and Mees (forthcoming) for details of Jones's Indian tour.
7. These matters are discussed more fully in Collins and Mees (forthcoming).
8. Jones, letter to Van Buuren.
9. See Chao (1934:38-40) for a detailed discussion of Jimbo's and Palmer's views.

### Bibliography

- Abercrombie, David. 1983. Daniel Jones's teaching. *Work in Progress* 16.1-8. Edinburgh: Department of Linguistics.
- Anderson, Stephen R. 1985. *Phonology in the twentieth century: theories of rules and theories of representations*. Chicago: University of Chicago Press.
- Barker, A. Trevor (ed.). 1923. *The Mahatma letters: to A.P. Sinnett*. Pasadena: Theosophical University Press.
- Besant, Annie. 1924<sup>2</sup>. *The ancient wisdom*. London: Theosophical Publishing House. First published 1897.
- Chao, Y.-R. 1934. The non-uniqueness of phonemic solutions of phonetic systems. *Bulletin of the Institute of History and Philology Academia Sinica*, Vol IV, Part 4, 363-97; rpt. in: Martin Joos (ed.). 1966<sup>4</sup>, 38-54.

- Chatterji, Suniti K. 1981. A personal tribute to Professor Daniel Jones. In: Masao Onishi. 1981. D. Jones, H.E. Palmer and phonetics in Japan: in commemoration of their 100th birthday. Tokyo: Phonetic Society of Japan, 19-26. First published 1968.
- Collins, Beverley & Inger M. Mees (forthcoming). *The life and career of Daniel Jones*. Berlin: Mouton de Gruyter.
- Fischer-Jørgensen, Eli 1975. *Trends in phonological theory: a historical introduction*. Copenhagen: Akademisk Forlag.
- Humphreys, Christmas. 1966. *The field of theosophy*. London: Theosophical Publishing House.
- Jones, Daniel. 1917. The phonetic structure of the Sechuana language. *Transactions of the Philological Society 1917-1920*, 99-106.
- Jones, Daniel. 1929. Definition of a phoneme. *Le Maître phonétique* (3) 7.43-44.
- Jones, Daniel. 1931. On phonemes. *Travaux du Cercle Linguistique de Prague* 4.73-74.
- Jones, Daniel. 1932. The theory of phonemes and its importance in practical linguistics. *Proceedings of the [first] International Congress of Phonetic Sciences*. Amsterdam, 23-24.
- Jones, Daniel. 1938. Concrete and abstract sounds. *Proceedings of the third International Congress of Phonetic Sciences*. Ghent, 1-7.
- Jones, Daniel. 1944. Some thoughts on the phoneme. *Transactions of the Philological Society*, 119-135.
- Jones, Daniel. 1948a. The London school of phonetics. *Zeitschrift für Phonetik* 2.127-35.
- Jones, Daniel 1948b. Sophie Lund (obituary). *Le Maître phonétique* (3) 26.18-20.
- Jones, Daniel. 1957. The history and meaning of the term 'phoneme'. London: IPA; supplement to *Le Maître phonétique* (3) 35. Later rpt. as an appendix to Jones 1967.
- Jones, Daniel. 1967<sup>3</sup>. *The phoneme: its nature and use*. Cambridge: Heffer. First published 1950.
- Jones, Daniel & Solomon T. Plaatje. 1916. *A Sechuana reader*. London: London University Press.
- Joos, Martin (ed.). 1966<sup>4</sup>. *Readings in linguistics I: the development of descriptive linguistics in America 1925-56*. Chicago: University of Chicago Press. First published 1957.
- Krámský, Jiří. 1974. *The phoneme: introduction to the history and theories of a concept*. Munich: Wilhelm Vink.
- Leadbeater, C.W. 1907<sup>2</sup>. *Man visible and invisible*. London: Theosophical Publishing Society.
- Omananda Puri. 1959. *The boy and the brothers*. London: Gollancz.



- Palmer, Harold. 1930. *The principles of Romanization*. Tokyo: Maruzen.
- Perera, H.S. & Daniel Jones. 1919. *A colloquial Sinhalese reader*. Manchester: Manchester University Press.
- Robins, R.H. 1979<sup>2</sup>. *A short history of linguistics*. London: Longman. First published 1967.
- Ščerba, Lev. 1911. Court exposé de la prononciation russe, supplement to *Le Maître phonétique* (2) 26.
- Trofimov, Michael & Daniel Jones. 1923. *The pronunciation of Russian*. Cambridge: Cambridge University Press.
- Twaddell, William Freeman. 1935. On defining the phoneme. *Language monograph* 16; rpt. in Martin Joos (ed.). 1966, 55-79.