Stress in Simultaneaus Interpreting

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ABSTRACT

The paper begins by discussing some factors which may lead to psychological stress being experienced by the conference interpreter in the course of his duties. With regard to simultaneous interpreting, attention is focussed on the effects on the interpreter of the original speaker's rate of speech delivery. The significance of the speaker's pauses is pointed out in allowing time for the interpreter to 'catch up', hence reducing his stress level. After a discussion of the nature and role of pausing in speech in general, factors are presented which might lead to a diminution of pausing by the original speaker, and hence to an increase in the interpreter's stress level. Evidence from cross-linguistic studies indicates that different languages may be articulated at different rates because of characteristic differences in the pausing behaviour of their speakers. This suggests that the particular language of the original speech may, even from a purely temporal point of view, be a factor leading to interpreter stress. Attention is drawn to the relative lack of research on Arabic in this context and to the lack of knowledge on how interpreters cope with this language, whether on the basis of the original speaker's rate of articulation, or on the basis of formal translation problems, or on the two combined.

One of the topics proposed for further research by the NATO Symposium on Language Interpretation and Communication (1977) was that of stress in interpretation. The following article seeks to add a new dimension to possible causes of stress in this situation by reviewing some findings from psycholinguistic research which, although not directed **per se** at the interpreting situation, seems, nevertheless, to offer interesting speculative insights in this context. These insights, it is felt, lend themselves particularly to further, more empirical, investigation locally in the Arab World.

In conference interpreting, it is customary to distinguish between consecutive interpreting and simultaneous interpreting. The former term usually means that the interpreter sits beside the speaker, may make notes on what is being said and, at suitable points in the speech, where the speaker purposely stops talking, delivers his translation of what has just been said. Although this procedure may strike the uninformed observer as one that is fairly relaxed for the interpreter, it does, nevertheless, involve a certain degree of stress for him. This is because it allows the audience, some of whom may know the language of the original and the language of the translation, to check on the quality of the translation. Although this possibility of public check is not present in the simultaneous translation situation, the stress afforded by this type of interpreting may possibly be even higher. Namy (1977) defines simultaneous interpreting as "the art of re-expressing in one language, a message delivered in another language, at the same time as it is being delivered". Thus, any linguistically sophisticated member of the audience would find it difficult to check on the quality of the ongoing translation because he must listen to the original at the same time. However, it is this very problem of the simultaneity of the two operations of text reception and translation which constitutes the load factor for the interpreter as well. Consider for a moment what his task entails. We have used the term "text reception" which may not be entirely accurate since it implies a degree of passiveness. Rather, the interpreter plays a very active role, linguistically analysing the incoming message prior to re-synthesizing it in the target language. He is highly constrained by the information content of the source text, a situation which, while relieving him of content decisions, means that his target language lexical and syntactic decisions must fall within the semantic area set by the original message. Crucial to the whole process is the fact that he cannot suspend transmission of his own output too long. To do so might take him upto, and perhaps beyond, the limits of his short term memory capacity with respect to input or output, or both. This situation is exacerbated by the fact that, when he does initiate his output, he must also attend to the continuing source text input he is receiving. The speaker in this context does not deliberately stop in order to allow the translator to catch up.

In fact, the term **simultaneous** interpreting is somewhat misleading. The two processes of original text generation and translation cannot ever be truly considered as taking place at the same time. By the very nature of things,

they must be temporally separate. This inevitable time lag between speaker and interpreter seems to vary. Usually, it is less than five seconds, but can exceed that under certain circumstances. Given similar translation conditions, different interpreters appear to make different time adjustments, which may point to a personality factor (Goldman Eisler, 1968), but the temporal characteristics of the output of any one interpreter must, obviously, be largely determined by input factors. Thus, the relative ease or difficulty of the on-line lexical or syntactic decisions required of the interpreter will be mirrored in his delay behaviour, while the more global problems of anaphoric reference also seem to have an effect. Lederer (1978), for example, points to a longer time lag at places in the speech where semantic linkups between what is being said now and what has been said earlier must be actively made by the interpreter in order for him to achieve full understanding. Of prime importance, however, are not only matters of the content and form of the original text, but also its temporal characteristics. Thus, the speed of input is of great concern to interpreters and forms an important factor in their training. Nevertheless, although Seleskovitch (1968) cites a rate of 150 words per minute as the upper recommended training target, such a high level of competence still does not rule out problems. Parsons (1978) found that one of the most stressful situations reported by interpreters was, in fact, when the speaker spoke too fast. Unfortunately, no figures are given as to what constitutes 'fast' here, but further subjective analysis by interpreters in the same study provides interesting additional information on what causes them high stress. Thus, it was reported that long speaker utterances (between pauses) caused almost as much stress as over-all rapid input.

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At this point, it is perhaps worthwhile to stand back from the interpreting situation and look briefly at the temporal characteristics of speech in general. Although not always realised by the non-specialist, it is a well-established fact known by researchers in the field that speech is not a continuum of unbroken articulation. Analysis proves that even speech which might be judged as highly fluent is interrupted and fragmented by pauses and, since around half of all pauses occurring in speech are of less than 0.5 second's duration, they may, indeed, pass unnoticed by the listener. When tallies are kept of such periods of silence within the apparent flow of articulation, the sheer accumulated volume can be extremely surprising. Goldman Eisler (1956:137-143) reports that between 35 to 67% of the total time spent on giving impromptu talks was actually taken up by pausing and that 66% of even the most fluent speech is produced in chunks of fewer than 6 words. These periods of apparent articulatory inactivity have important implications for speech programming since they are, in effect, periods of cognitive activity. In simplistic terms, they are the times when the speaker thinks about what he is going to say (Goldman Eisler, 1968).

Returning to the process of simultaneous interpreting, it is plain to see that the interpreter does not have this innovatory burden of original compostion to shoulder, so that pausing in the source text is actually a facilitating condition. The more translating he can accomplish in the speaker's pause time, then the less interference he will suffer from his own output while attending to the incoming text. Even where the pauses are very brief, the slowing down they afford of the rate of source text delivery provides him with more time in which to accomplish his task. Conversely, situations which involve a diminution of pausing in the source text will result in a magnification of the simultaneous interpreter's difficulties. Therefore, in order to appreciate fully the range of stressful situations facing the simultaneous interpreter, some insight must be gained into the types of situations in which pausing may be reduced.

Factors springing readily to mind in this context are whether the input to the translator is the reading of a prepared speech or the delivery of a spontaneous talk, the former being more conducive to fluency than the latter (Goldman Eisler, 1968). But cutting across these must be the idiosyncratic

speech rates of individual speakers. Pausing and rate of articulation as features of expressive style may be open to considerable manipulation by the speaker whether consciously or unconsciously. There is, for instance, a body of published work relating to the effects of anxiety on speaker fluency. The evidence suggests that, unless the level of anxiety is very high (in which case pausing takes over and speech may be inhibited almost entirely (Mahl, 1956:1-15), moderate anxiety may result in a tendency to raise the rate of verbal productivity (Murray, 1971:244-266). The term **anxiety** is a fairly wide one covering a range of situations and degree, but it does not seem unreasonable to suppose that some speakers may, in fact, suffer some anxiety when required to deliver a speech in public. The resulting increase in speech rate this may bring about would obviously increase the load on the simultaneous interpreter. In addition to these situational factors, it appears that the personality of the speaker may also influence his characteristic encoding-rate strategies. Ramsay (1966:116-118/1968:54-63) found that there was a correlation between the speech: silence ratios of his subjects and their scores on Eysenck's (1960) introversion-extraversion scale. Extraverts, he found, showed less pausing in their speech than introverts so that, all other factors being equal, a simultaneous interpreter would find extraverts more challenging to work with than introverts. With tongue in cheek, one might be tempted to ask which personality type is more likely to be found among the world's speech makers!

However, on a more serious note, and moving outward, as it were, from the internal states of individual speakers, interesting questions may be raised concerning the relationships between a speaker's place within the socio-cultural milieu and his temporal programming of speech. This is an area in which little research appears to have been done. At the purely subjective level, an English speaker may feel that the countryman's vocal delivery is at a much slower tempo than, let us say, that of the city dweller's. Is this true, and if it so, is it attributable to longer and/or more frequent pauses? More broadly phrased, the question might read: do different dialects have different pause patterns and, if so, can they be systematically explained? Again on a subjective level, the English speaker could point to the lazy drawl of the Texan compared with the machine-gun rattle of the American news reader, or the often caricaturised slowness of speech of the Somerset rustic compared with the allegedly rapid repartee of the London Cockney. However, such obvious polarities may indeed represent the opposite ends of the spectrum. What may be of greater interest are the centralised tendencies of any one language using group's pausing characteristics, assuming this to be a valid concept. Is there then, a fairly narrow range of pause and rate patterns within which most of the speakers of a language operate, most of the time, in given speech situations? Would such a range have universal applicability for all languages, or are there different conventions in this respect for different languages? Reflection on this, again at the purely subjective level, points to the commonly-felt experience that speakers of a language with

which one is unfamiliar speak at a very fast rate. Is this merely a perceptual illusion brought about through the unfamiliarity of the speech sounds we hear and their organisation, or are some languages really articulated at a faster rate than others? Obviously, this is a question which has a very direct bearing on the simultaneous interpreter's situation.

Objective data on pausing and speech rate in a cross-linguistic setting, however, is sparse. Studies on this topic are rare and, probably because of differences in experimental procedures, present a somewhat variable answer to our question. Thus, Osser and Peng (1964:120-125) on the basis of a comparison of Japanese and American speaker's speech rates, concluded that speech rate within a certain range may be a language universal. However, their conclusion rests on the simple metric of the number of phonemes articulated by speakers of these respective languages per second, with no investigation of pauses. It is conceivable, for example, that there may have been differences in pausing in the two languages compensated for by rate adjustments which would be obscured by looking at over-all speech rate. A study which may be of more significance to our simultaneous interpreter, however, may be that of Black et al (1966:237-241). Languages compared this time were Hindi, Spanish, Japanese and English. On a reading task, it was, indeed, found that the median duration of pauses differed according to language, with Hindi speakers showing the shortest times and Japanese the longest. However, the main focus of this study was simply to establish that there was a difference between these various languages and so more detailed profiles of their cross-linguistic temporal differences are lacking. A more exhaustive catalogue of such differences is provided, though, by Haggan's (1973) study of native speakers of English and Arabic. In comparison with native English speakers, the native Arabic speakers in her study spent less time pausing per phoneme, spent less of their total utterance time in pausing, used shorter pauses on average, and had longer phonations (i.e. stretches of uninterrupted articulation). It was also found that, whereas phonation rates (the ratio of the number of phonemes articulated to actual speech time) across the two languages did not differ significantly, verbal rate (the ratio of the number of phonemes articulated to speech time plus pause time) was significantly faster in Arabic than in English.

The implications of this for the simultaneous interpreter are very significant since the evidence would strongly suggest that if he is engaged in translating Arabic utterances into English (or Hindi into English) he is more at risk to the element of stress. Even such a cautiously-worded conclusion as this raises two important qualifications which, themselves, deserve further research. In the first place, as mentioned earlier, we do not have scientifically-based information on the point at which speaker's output speed exceeds the acceptable ceiling below which the interpreter can function comfortably without experiencing stress. Secondly, it should be pointed out that Haggan's subjects were native speakers of Cairene Arabic and

whether or not her findings would generalise to all Arabic speakers is not known. Indeed, considerable work remains to be done into cross-linguistic temporal characteristics as a whole since, if such differences exist between English and Arabic, they may also exist between other languages.

Lest the charge of oversimplification be levied against these research suggestions, it may be well to underline the point that rate factors such as we have been describing cannot be studied in isolation from content. Furthermore, matters of temporality become even more complex in the light of further evidence suggesting that some languages, or certain constructions in some languages, take more time to translate than others. Reynolds (1970), for example, has pointed out that the translation of certain forms in French (e.g. passives) into English costs extra translation time. Goldman Eisler (1972:127-140) found that interpreters working from English to German showed a greater time lag between input and output than those working from German to English. Thus, the simultaneous interpreter's timing becomes a product of (among other things) certain formal problems that crop up in the cross-linguistic situation **per se.** If to these are added possible rate problems such as we have just indicated, then the degree of stress for the simultaneous interpreter will be very high indeed. Arabic is a relative newcomer to the list of working languages of the United Nations and little is known about how interpreters cope with it either at the level of possible formal translation problems or at the level of rate of input, far less the two combined. Indeed, most of the research bearing directly on problems of simultaneous interpreting seem to centre on French, German and English. Here, then, is an area which would seem to offer considerable scope for further, local, investigation.

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