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RETHINKING SPOKEN FLUENCY

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This article re-examines the notion of spoken fluency. Fluent and fluency are terms commonly used in everyday, lay language, and fluency, or lack of it, has social consequences. The article reviews the main approaches to understanding and measuring spoken fluency and suggest that spoken fluency is best understood as an interactive achievement, and offers the metaphor of 'confluence' to replace the term fluency. Many measures of spoken fluency are internal and monologue-based, whereas evidence from a variety of research both within and without linguistics and applied linguistics suggest that speakers fine-tune their performances to one another. I report ongoing research into features of spoken language, such as automaticity and turn-boundary phenomena, which illuminate the interactive processes involved in fluent production. The applications of such research will be directed towards the empirical underpinning of the Common European Framework (CEFR) level descriptors for spoken language through the English Profile project.

Key words: fluency, interaction, corpora, spoken language

Este artículo revisa el concepto de la fluidez oral. 'Fluido' y 'fluidez' son términos usados comúnmente en el lenguaje profano y la 'fluidez', o la falta de ella, tiene consecuencias sociales para los hablantes. Este artículo revisa los principales enfoques para la comprensión y la medición de la fluidez oral y sugiere que la fluidez oral debe entenderse como un logro de la interacción y no sólo de la expresión individual. También se presenta la metáfora de la 'confluencia' para sustituir el término 'fluidez'. Muchas de

las mediciones de la fluidez oral que se realizan a través de investigaciones están basadas en la producción de un monólogo, mientras que los resultados de las investigaciones llevadas a cabo en el ámbito de la lingüística, la lingüística aplicada, y también en otras disciplinas, muestran que los hablantes sintonizan su discurso oral con el de su interlocutor. En este artículo se presenta una investigación en curso sobre las características propias del lenguaje oral, como son la automaticidad y los fenómenos que aparecen en los intercambios de turnos de habla, que determina los procesos interactivos involucrados en la producción oral fluida. Las aplicaciones de esta investigación se dirigirán a apoyar empíricamente los descriptores del Marco Europeo de Referencia para las Lenguas con el proyecto denominado English Profile.

Palabras clave: fluidez, interacción, corpus, lenguaje oral

1. Introduction

The terms *fluent(ly)* and *fluency* are examples of terminology whose purview goes beyond the specialist language of linguists and applied linguists and which is firmly rooted in everyday lay usage. Most people have at least a rough understanding of what it means to say that someone is 'fluent in Spanish' or 'speaks Japanese fluently', or to say that one is able to speak a language 'but my fluency is not what it used to be'. And indeed, in more than just the Romance languages, the equivalent word for fluent is typically based on a metaphor of 'flow' or 'smooth delivery' (e.g. Norwegian *flytende*). Few other pieces of linguistic terminology are so effortlessly used in ordinary, everyday language or are so deeply rooted in a common metaphor. We might also note that pieces of music are often said to 'flow' (or not). In this paper, I would like to unpack a little what spoken fluency is understood to entail and what it might actually entail the more we look at how speakers interact.

As might be expected, a huge amount has been published over the years on the nature of fluency, and the debate entered here is certainly not a novel one. Hieke (1985) spared no words in concluding that '... the literature on fluency reveals it to be replete with vacuous definitions ...' (p.135), a little harsh, perhaps, but nonetheless reflecting a frustration that there seemed to be no happy consensus on what the term meant. It would be fair, however, to sum up the past literature in terms of a number of major preoccupations, albeit themes upon which researchers do not always agree, but which enable us broadly to map the landscape within which fluency is discussed:

- Speed of delivery, including number of words per speech unit or per minute, location, distribution and length of pauses, etc. (Fillmore, 1979; Dechert, 1980; Towell, 1987; Towell et al, 1996; Lennon, 1990; Riggenbach, 1991; Freed, 1995; Kormos and Dénes, 2004; Wolf, 2008; Mochizuki and Ortega, 2008; Rossiter, 2009).
- Automaticity: the ability to retrieve units of speech (routinised and prefabricated words, phrases, whole clauses) quickly and automatically (Fillmore, 1979; Rehbein, 1987; Gatbonton and Segalowitz, 1988; Towell et al, 1996; Chambers, 1998; Wood, 2001, 2006).
- Perceptions and assessments of fluency and their implications by professional practitioners such as teachers and examiners (Derwing et al, 2004; Hasselgreen, 2004; Kormos and Dénes, 2004).
- Perceptions of fluency and their implications by non-professionals, for example, the public at large, employers, social peers (Tainer, 1988; Dustmann,1994; Chiswick and Miller, 1998; Dávila and Mora, 2000; Shields and Wheatley Price, 2002; Yeh and Inose, 2003).

What typically (but not exclusively) unites the first two preoccupations is a conception of fluency as a monologic achievement, often judged under experimental or quasi-experimental conditions: the speaker either performs fluently or does not, and is more, or less, fluent. The second two preoccupations bring in many more social concerns, especially the fourth,

and fluency is more typically sited and judged in performance with others (other language learners, interlocutors in social settings, etc.). Some studies naturally fall in between the broad dichotomy, with studies of foreign language learners who have spent considerable periods of time living in the target culture usually being judged by their performance before and after immersion in the target social milieu (e.g. studies by Towell, 1987 and Lennon, 1990). Equally, in Wolf's (2008) study, the researcher acted as an 'interlocutor' of sorts with the informants, while in Lumley and O'Sullivan's (2005) study, informants interacted with taped stimulus voices to test task effects such as gender of interlocutor.

2. Monologue and Dialogue

2.1. Speed of Delivery

Fluency as calculated by temporal measures such as speed of delivery, pausing and so on undoubtedly has some foundation in real perceptions of informants. Freed (1995), in comparing two groups of language students, one stay-at-home group and one which studied abroad in the target culture, used average number of words per second as an instrument of comparison, with the (more fluent) study abroad students managing more words per second. In Kormos and Denés' (2004) study, various aspects of speech rate (apart from pausing) were said to be 'the best predictors of fluency scores' (p.145) (see also Rossiter, 2009), while Foster and Skehan (1999), looking at the reverse of the coin, see longer silences within and between speaker turns in task performances as 'moments when performance is seriously disrupted and the subject has to engage in regrouping and unexpected on-line planning' (p.229).

In respect of speed of delivery, however, real speech rates vary greatly depending on context and speech genre (Tauroza and Allison, 1990), and so speed of delivery on its own and taken out of context is clearly a

blunt instrument for assessing fluency. By the same token, pausing is a complex phenomenon which is sensitive to the cognitive complexity of production and the contextual conditions of speech (Goldman-Eisler, 1972). Pauses may not necessarily be a sign of communicative failure but may indicate complex planning and increased cognitive effort. Moreover, intriguing evidence from divergent sources in communication research, psycholinguistics, sociolinguistics and computer-human-interface science suggests that humans fine-tune their rate of speaking and pausing in accordance with that of their interlocutor(s) (Street et al, 1983; Street and Capella, 1989; Giles et al, 1991; Bosshardt et al, 1997; Street, 2006; Kousidis and Dorran, 2009), a subliminal and delicate harmonising of tempo being achieved in successful interaction, with speech and silence between interlocutors performing a rhythmic dance. Such harmony may be a convincing candidate for an important property of the metaphor of 'flow'. In sum, with this conception, speed of delivery becomes an interactive, jointly produced phenomenon of discourse, and pauses and hesitations can be investigated with a greater degree of sensitivity to their contexts of occurrence.

2.2. Automaticity

It is uncontroversial to suggest that automatic retrieval of language forms plays a part in smooth performance and delivery of spoken language. Dörnyei (2009) sees a distinction between speed of delivery and automaticity, in that 'fast processing is not necessarily automatic' (p.287). It is inconceivable that fluent speakers create anew on each occasion of production the patterns that are so common in speech as evidenced in spoken corpora. Once again, context influences the degree of automaticity that is demanded on any given occasion of production (Bialystok, 1982), with dyadic or multi-party conversation placing the highest premium on automaticity because of the need to compete for turns and the imperative to react quickly to one's opportunities for speaking. The overwhelming

evidence of brief pause-lengths between speaker turns in everyday conversation (typically less than one second) suggests that turn-boundaries are a locus of high demand on automaticity. The work of Stivers et al (2009) shows that across a wide range of languages, pauses between turns are consistently very short (for English around a quarter of a second), suggesting a general principle that humans seek the shortest delay between turns while avoiding too many overlaps. As with other aspects of convergence, there is also evidence that speakers attempt to converge on pause-duration between speaker turns (Kousidis and Dorran, 2009). We return to issues of turn-taking below.

A major feature of automaticity is the need to retrieve ready-made chunks of language (most typically two to four words in length; see O'Keeffe et al, 2007, for corpus-derived lists of these). The ubiquity in native-speaker and expert-user conversation of such chunks is testimony to their regular, fixed occurrence and to their common, everyday pragmatic functions. Dörnyei (2009: 294-297) gives a useful summary of the notion of chunking from a psycholinguistic viewpoint and mentions the importance of chunking in both production and perception. That such chunks are directly related to automaticity has long been recognised (e.g. Gatbonton and Segalowitz, 1988). The internal syntactic structures of chunks such as *on the other hand, you know what I mean, if you like, by and large, that sort of thing*, etc. vary considerably but what they have in common is the need to be articulated quickly, automatically, consistently and pre-assembled as intonation units, without internal interruption, thus producing runs of smooth speech that require less frequent pausing (Wood, 2006). Provided chunks are uttered smoothly and without disfluency, the speaker can afford the comparative comfort of taking their time with the more transactional, non-pre-assembled aspects of the utterance. Chunks facilitate reduced processing time (Conklin and Schmitt, 2008) and are therefore more communicatively efficient both for producer and receiver, suggesting a useful underpinning of 'flow' and an interactive basis for their use.

2.3. Turn-taking and Fluency

One aspect of automaticity mentioned above is the ability to respond without long pausing when it is one's turn to speak. The smooth progression of turn-taking in multi-party conversation, with little overlap or interruption, has long been recognised as a basic feature of talk (Sacks et al, 1974), and has recently been reinforced by Stivers et al's (2009) study, as mentioned above. Two principle aspects of turn-construction would seem to be implicated in the creation and maintenance of flow: turn-opening and turn-closing, each point being the mirror-image of the other, and both points being potential sites for smooth or disfluent transition. What happens at turn-boundaries may tell us a good deal about how flow is constructed interactively, as opposed to the degree of monologic flow achieved by a single speaker.

Tao's (2003) study of turn-openers showed convincingly that items which opened speakers' turns attended to what the previous speaker had just said, in other words, turn-openers provided links and continuity with what had just occurred and function to create smooth transitions and flow. Evison and McCarthy (forthcoming) give as the 10 most frequent turn-openers in a one-million-word sub-corpus of social conversations which form part of the 5-million word CANCODEi corpus the following: *Yeah, Mm, Oh, And, I, No, [laughter], Well, Yes, But*. These items show an overwhelming preference for linkage with the preceding utterance, thus avoiding the impression of a butterfly-like hopping from one turn to another. The dominant imperative seems to be to construct one's turn so that it links with and flows smoothly from the previous speaker's turn. Such a demand is not present in set-piece monologue performances. The moment we consider real conversation among two or more participants, the issue of flow breaks out of the confines of the single speaker or the single speaking turn and becomes the joint responsibility of all participants. This responsibility axiomatically includes a joint responsibility to fill silences and to avoid uncomfortably long pauses that conversation tries to avoid. For this reason, flow across

turns may be better captured by the term *confluence*, reflecting the jointly-produced phenomenon which constitutes a successful interaction.

Turn-closings are complementary to turn-openings. The turn typically transfers to another speaker at predictable points such as the completion of syntactic or intonation units, so-called transitional relevance points (TRPs) (Sacks et al, 1974) and, as we have discussed in relation to the duration of pauses, above, transition is typically quick and automatic. Evison and McCarthy (forthcoming) further demonstrate that there is a strong tendency for the occurrence of certain lexical items and longer chunks to trigger speaker-change. These include vague language markers such as *or something, and stuff (like that)*, which invite the listener to fill in unstated or fuzzy members of categories from shared knowledge (Evison, McCarthy and O'Keeffe, 2007). An immediate convergent response, however brief, confirms the projection of assumed shared knowledge for the speaker. Evison and McCarthy (ibid) show that such responses frequently occur, even if they are only acknowledgements such as *I know* or *Yeah*. Likewise, common evaluative adjectives such as *lovely, awful, wonderful, funny* regularly trigger listener verbal reaction, with a strong preference for convergent reactions. The reaction is not necessarily (and is very often not at all) floor-grabbing; it can be minimal (e.g. backchannel noises such as *Mm*), or non-minimal (e.g. *Really*?) (McCarthy, 2003), while still leaving the floor in the hands of another speaker. The importance of these types of items is that they invite reciprocity and convergence and project seamlessly to the following turn-opener by the next speaker. Turn closing also includes the possibility of turn-completion by a listener, or the joint production of syntactic formations such as main clause (speaker 1) followed by subordinate clause (speaker 2). Examples of such fluent joint production may be seen in Tao and McCarthy's (2001) study of non-restrictive *which*-clauses in conversation.

One might sum up the contribution of turn-taking to the notion of fluency by the simple and seemingly banal observation that all utterances in a conversation, apart from the opening utterance, may be seen as responsive,

with the primary motivation of turn-construction being the creation of a responsive unit of speech, quickly and automatically. For the purposes of the present discussion, turn-opening and closing may be viewed as two sides of the coin of confluence, in other words, the co-creation of fluency in a conversation rather than the fluency of an individual speaker. Judgements of fluency which lack such an interactive dimension may therefore be considered as providing only a partial picture of the speech event, lacking as they do the attention which is merited by the efforts of conversational participants to create confluence on so many different levels.

3. Assessing Fluency in the Pedagogic Context

Assessing fluency has long preoccupied language practitioners and many language-proficiency measures and scales of achievement explicitly acknowledge fluency as a component of proficiency measures. The Common European Framework of Reference (CEFR) refers to fluency as a descriptive element at the higher levels. In the description of the B2 level, for example, the successful B2 language learner should be able to 'interact with a degree of *fluency* and *spontaneity* that makes regular interaction with native speakers quite possible *without strain for either party*' (Council of Europe, 2001: 24). Not only does this description link fluency with spontaneity, echoing the importance of quick and automatic production, the implications for interaction with another speaker are at least acknowledged, even if only vaguely stated. The more specific description of spoken language in the CEFR describes the C2 user as being able to speak 'so smoothly that the interlocutor is hardly aware of it.' (ibid., p.28), highlighting the importance of smooth performance and, once again, acknowledging the interactive dimension of fluency. Even at a lower level of achievement (B2), the speaker should be able to produce language 'with a fairly even tempo' and 'few noticeably long pauses' (ibid.). Tempo and pausing, as we have argued,

may not be adequately assessed without the presence of an interlocutor and without taking into account a variety of contextual features.

One of the problems with scalar descriptions such as the CEFR is the lack of empirical underpinning (no fault of its creators, who did not enjoy the access to computerised spoken corpora available to present-day linguists and practitioners), an imbalance which the multi-disciplinary *English Profile* research project is attempting to address with the construction and analysis of spoken learner corpora (see the *English Profile* website). Questions to be answered by empirical investigation include whether learners who have been assigned to CEFR levels either through examination systems (directly or through grade-equivalence) actually show the ability to create smoothness and interactive flow and display the kinds of features this paper claims to be at the centre of fluent production both on the monologic and dyadic or multi-party levels. In ongoing research, the present author is currently analysing large quantities of spoken learner data to understand better the typical turn-taking patterns and use of chunks among learners at different levels, under the aegis of the *English Profile* project. Initial findings suggest a strong influence on the nature of learner turn-openings by the type of task involved (e.g. whether the learner is responding to an examiner's questions or interacting with a peer candidate). Knowledge of such task effects may, it is hoped, inform better and more efficient task design or the future (see references to O'Sullivan's work in this area, below).

Existing research suggests that speech rate is greater in situations where monologue is supported by backchannel responses from an interlocutor (Wolf, 2008), just as oral narrative skills are boosted or depressed by the active involvement of listeners (Bavelas et al, 2000). Where an interlocutor is absent or silent, the sole speaker has the added cognitive pressure of filling all the silence. In normal conversation, all speakers have a role in filling silences, even if it is only through backchannel responses, or non-minimal but non-floor-grabbing responses (McCarthy, 2003). Such responsibilities are rarely equally shared in oral proficiency interview situations, with the examiner often having to adopt a sphinx-like posture in

the face of communicative breakdowns or silences on the part of candidates interacting with one another. Guillot (1999) who puts forward many views with which the present paper concurs, makes plain what fluency involves:

> … fluency, if we look at it in context, is far from being a one-sided speaker-related notion. It has emerged as the product of a (largely intuitive) fine tuning between participants in an exchange according to the parameters of the exchange, as a process of negotiation. (p.41)

The interactive demands of fluency are also underlined in Hasselgreen's (2004) investigation of the role of 'smallwords' (which include some common chunks) in perceptions of fluency. The smallwords which characterize fluent speakers are highly interactive and flow-sustaining; they include high-frequency items such as *you know, sort of, right, or something* and *well*. Such small items are often subliminal and have, over the years, received less attention in the study of language learners' vocabulary than the more salient and content-rich items. The smallwords Hasselgreen isolates for examination are precisely those items which are non-propositional and which operate at the interpersonal level and sustain interaction.

Although many of the studies of fluency in pedagogical contexts focus on monologue performance and on the tried and tested parameters of speech rate and pausing, there does seem to be an increasing recognition of the need to face into the issues involved in conceptualising fluency as an interactive phenomenon. With the evidence of learner spoken corpora, such recognition will have rich veins to mine in the examination of real learner data, as well as the increasing output of research into native-speaker and expert user fluency based on corpora collected in non-learning environments (Prodromou, 2008).

4. Fluency in Society

Were the issue of fluency to be no more than an arcane academic pursuit, the resolution of questions surrounding its nature and its appropriate assessment might be less pressing. However, research suggests that perceptions of fluency in the world beyond the walls of academe have real and sometimes life-affecting implications for people using languages other than their native or first language. Several studies suggest that employment opportunities may be affected by the degree to which potential and actual employees achieve good or better jobs, especially in situations such as those of newly arrived immigrants. Tainer (1988) had already pointed out the detrimental economic effects of lack of language proficiency on immigrant groups (see also Dustmann, 1994). Chiswick and Miller summarise their own research and the research of others which suggests that immigrants who become fluent in the host country language gain greater economic benefits. Later, Dávila and Mora (2000) spoke of the 'English deficiency earnings penalty' (p.369) in relation to levels of fluency among immigrants, as well as legislative pressures in the United States in relation to language standards, and how immigrants reacted to these. In the UK, Shields and Wheatley Price (2002) found similar economic disadvantage attaching to problems with fluency. In a different context, Yeh and Inose (2003) found that fluency level was one of the factors that contributed to acculturative stress and integration problems among international students. It would appear that evidence from without the linguistic community points to the importance of understanding fluency as a real-world notion rooted in lay perceptions (and perhaps prejudices).

5. Conclusion

The global spread of English language examinations and systems of evaluation such as the CEFR, the growth in importance of speaking skills in a global economy and the growing desire for objective standards in English language education all point to the need for greater empirical evidence of

how fluency manifests itself in real language use. What much of the evidence seems to point to is that such an understanding will be best gained if we view fluency as an interactive achievement, perhaps more adequately captured by the metaphor of confluence. Achieving confluence, successfully interacting in talk that flows and being perceived as both able to create within one's own utterances and across utterances the satisfactory perception of flow for all participants is an art, the evidence of which will not be found or fairly assessed in monologic contexts but in the robust evidence of dyadic and multi-party talk. Spoken corpora of both native users and learners offer us a coign of vantage for the observation of how speakers achieve or fail to achieve the confluence that marks a successful interaction and are the proper site for investigation of a phenomenon that has so many pedagogical and social implications.

The spoken corpora compiled for the English Profile project will not only be useful for descriptive purposes such as explicating the lexico-grammar that characterizes the different CEFR levels; they will also enable finer-grained analyses of phenomena such as task effects and interlocutor effects in test-taking and non-test situations (O'Sullivan, 2002; Lumley and O'Sullivan, 2005) and will, it is hoped, facilitate better test and task design, or at the very least, circumscribe our interpretations of learner performances in relation to possible performances in different contextual environments. O'Sullivan et al (2002) have already shown how complex a checklist of possible communicative functions can be for an oral test situations and how such a checklist can be used to check actual realizations (or not) of intended communicative outcomes. The same complex interactions between task, interlocutor(s), intended outcomes and other contextual factors almost certainly apply to fluency (or disfluency) and its realization in different situations. The more extensive, the more varied and the more contextually circumscribed the data in the corpora assembled for the EP project can be in the future, the more delicate and sensitive will be the understanding of the relationship between fluency and the contexts in which we observe it.

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