

**Is formulaicity a factor in fluency? An investigation into the relationship
between fluency and use of formulaic sequences in adult Japanese Speakers
of English**

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[Dissertation for MA in Applied Linguistics and TESOL, University of Portsmouth, 2013]

Abstract

This study concerns how Japanese Speakers of English (JSE) use formulaic language in their spoken English. Formulaic language is the use of pre-fabricated multi-word sequences that a speaker retrieves and uses whole rather than constructing word-for-word in real time during speech. Theoretical research suggests that the use of formulaic sequences may be associated with oral fluency since both are related to the automation of processes in speech production. Some empirical research has also shown that the use of formulaic language may be a contributing factor in increasing fluency.

To explore the relationship further, this study recruited eight JSE participants at various levels of proficiency (between B1 and C1 on the European Framework of References for Language) and two native L1 English speakers (NS) from the UK. Seven of the JSE were based in Japan and one in the UK. Each participant was given two speaking tasks - a structured interview about their current job and a picture narration task - producing a total speech sample of around 5 minutes. These were recorded and transcribed and a temporal measure of fluency (TF) was calculated based on a combination of speech rate, proportion of time spent speaking (phonation time ratio) and the mean length of runs between pauses. A second type of fluency measure was obtained by extracting a short excerpt (of around 2 minutes) from each participant speech sample and having a panel of eight people (L1 and proficient L2 English speakers) independently rate its fluency on a scale of 1-10. Perceived fluency (PF) was calculated as the average rater score. Formulaic sequences were defined as holistically stored chunks of language containing three or more fixed words. These were identified in each sample using eight diagnostic criteria. The likelihood that they were indeed formulaic was further confirmed by having participants undertake an individualised oral dictation task constructed using potentially formulaic sequences they had used in their sample. Formulaicity was

measured using Formula Rate (FR), the average number of formulaic sequences uttered per minute of phonation time.

Across the 10 participants, there was a significant correlation between fluency (TF) and formulaicity (FR) with Pearson's correlation coefficient $r = 0.897$ ($df=8$, $p=0.006$). Similar levels of correlation were evident using other temporal fluency or formulaicity variables and when focussing on only the JSE participants. There was also a significant correlation between perceived fluency (PF) and formulaicity (FR) within the JSE participants (Spearman's $\rho = 0.802$, $n=8$, $p=0.017$). These results suggest a strong relationship between oral fluency and the use of formulaic sequences. By partialling out the effect of proficiency on the correlations and by looking at participants with similar proficiency levels, this did not appear to be simply the result of a mutual association with proficiency. The results therefore add weight to previous studies that have proposed a relationship between the use of formulaic sequences and fluency in spoken English. It also provides support for an increased emphasis on formulaic language by adult Japanese learners of English.

Whilst it was not possible to draw definitive conclusions on how formulaicity may influence fluency, a qualitative look at the actual usage of formulaic sequences by the participants suggested that more fluent speakers may use formulaic sequences to improve their confidence and flow, for example by using hedging or circumlocutory expressions. Repetition of formulaic sequences may also be a good strategy for increasing fluency.