Learning A Second Language Subconsciously

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Abstract

Second language learning is taught in the majority of schools across the globe in order to communicate and collaborate with one another. This study looks into one specific type: unconscious learning. In the data collection stage, participants in China, who have learned English in many different ways, were surveyed. The participants all looked at the same graphics put in front of them and then told the story they saw in their own words, in English. These results were then taken and rated on 2 factors: comprehensibility and accentedness. The results are then going to be analyzed and compared. The goal is to discover the influence that unconscious second language acquisition has on the language learning process and how these results differ from those in a traditional learning environment.

Introduction

- Analyzes how non-native English speakers interpret a film into English.
- When learning new languages processes of conscious and unconscious learning comes into play simultaneously.
- Learning is not only an intentional and purposeful process, but rather it's a process that can also be unintentional.
- Sometimes when speaking a new language, it is natural to have an accent, in some cases the presence of an accent can hinder understanding. However, we analyze the accent and the comprehensibility of the speakers.

Methods

- 166 university ESL learners took an oral test and three tests of implicit language aptitude. The oral test was an oral narrative where the learners watched a 6-minute silent video and retold the narrative in English.
- The speech samples were rated in terms of accentedness and comprehensibility by 6 native speakers of English who were undergraduate students at a large U.S. university. The three tests of implicit language aptitude were syntactic priming, artificial grammar, and serial reaction time. In artificial grammar, the learners memorized some letter strings created based on a finite grammar and were then tested by being asked to recognize old and new strings.
- Their performances were calculated as differences between their reaction times for the two sequences. In syntactic priming, they listened to sentences in active or passive voice, saw a picture after hearing each sentence, and finally described the picture. The test was scored by counting the number of cases where they used active sentences after active primes and passive sentences after passive primes.

References

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Preliminary Results/Conclusions

- Three factors that are hypothesized to be correlated with your ratings of comprehensibility and accentedness. These predictors are priming, artificial grammar, and LLAMA_D, which are hypothetically important for implicit learning. In a priming trial, learners listened to a passive sentence, followed by a picture which they were asked to describe.
- The purpose was to see whether they used the passive voice to describe the picture as a result of hearing a passive sentence. In artificial grammar, learners memorized some letter strings created based on some rules and were then asked to judge whether some new strings were based on rules. The purpose was to see whether they learned the rules unconsciously. In LLAMA-D, they listened to some artificial sound sequences and were asked to recognize them among a mix of old and new sequences.
- As you can see, LLAMA_D was a positive predictor of accentedness and priming was a negative predictor of both comprehensibility and accentedness. The results suggest that the ability to encode phonological information unconsciously is important for a better accent.

Correlation Analysis

		LLAMAD	AG	p
LLAMAD	Pearson Correlation	1	-.106	.022
	Sig. (2-tailed)		.177	.774
	N	167	165	166
AG	Pearson Correlation	-.106	1	-.138
	Sig. (2-tailed)	.177		.077
	N	165	165	164
p	Pearson Correlation	.022	-.138	1
	Sig. (2-tailed)	.774	.077	
	N	166	164	166
Speech_spring2022_comp	Pearson Correlation	.125	.102	-.164*
	Sig. (2-tailed)	.114	.199	.037
	N	162	160	161
Speech_spring2022_accent	Pearson Correlation	.194*	.045	-.165*
	Sig. (2-tailed)	.013	.576	.037
	N	162	160	161
Speech_spring2022_total	Pearson Correlation	.162*	.078	-.170*
	Sig. (2-tailed)	.039	.328	.031
	N	162	160	161

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation Analysis

LLAMA-D score was found to have a positive significant correlation with the accentedness score (r = .194, p = .013) and the total speech score (r = .162, p = .039). It indicates that those who scored high on the LLAMAD test also received high score on their accentedness and total speech performance. The Priming score, on the other hand, was found to be significantly negatively correlated with the ESL learners' comprehensibility score (r = -.164, p = .037), accentedness score (r = -.165, p = .037), and the total score (r = -.170, p = .031). It means that the learners who showed more priming performed poorly on the speech performance showing low scores on the comprehensibility, accentedness, as well as the low total scores. The Artificial Grammar score did not show any significant correlations with the speech performance.

Multiple Regression Analyses

1) Comprehensibility as the outcome

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.975	.708		5.618	.000
	LLAMAD	.000	.000	.140	1.790	.075
	AG	.025	.022	.092	1.161	.248
	p	-5.238E-5	.000	-.161	-2.042	.043

a. Dependent Variable: Speech_spring2022_comp

2) Accentedness as the outcome

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.410	.612		5.574	.000
	LLAMAD	.000	.000	.205	2.637	.009
	AG	.009	.019	.040	.504	.615
	p	-4.713E-5	.000	-.167	-2.126	.035

a. Dependent Variable: Speech_spring2022_accent

3) Total score as the outcome

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.692	.637		5.793	.000
	LLAMAD	.000	.000	.176	2.259	.025
	AG	.017	.019	.070	.886	.377
	p	-4.975E-5	.000	-.169	-2.154	.033

a. Dependent Variable: Speech_spring2022_total