

“Language acquisition is just a matter of imitation!”
Demythologizing this popular belief.

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Abstract

The ability to acquire our first language(s) with apparently little effort has led to much research into first language acquisition. One hope of this is that there are aspects which can be applied or transferred to second language learners and has resulted in a number of second language teaching methods based on first language acquisition. One such belief was the popular behavioural view of the 1950's and 1960's that “Language learning is mainly a matter of imitation” (Stern, 1970:58). While subsequently criticized by generativist and cognitive theorists including Chomsky and Bruner respectively, imitation has played a significant role in learning theory through out the history of psychology. This paper looks at the role of imitation within language learning noting the disagreements on the criteria defining imitation and the arguments for and against this method in the second language classroom. The paper's findings suggest that imitation still plays a valuable role in second language acquisition.

第一言語の習得には、さほど努力を必要としないが、習得する能力については多くの研究がなされてきた。このような能力の特徴を、第二言語を習得しようとする者に適用したり流用したりできるのではという期待から、その特徴をベースとした第二言語教育法がいくつか登場した。その1つは、「言語学習とは主にイミテーションの事である」(スターン, 1970:58) というもので、50年代から60年代に行動論として紹介されよく知られるようになった。その後、チョムスキーやブルーナといった生成文法学者や認知理論家によって批判される一方で、イミテーションは心理学の学習論においては重要な役割を果たしてきた。ここでは、第二言語学習におけるイミテーションの役割とその基準に対する意見の相違、第二言語学習クラスにおいてこの教授法を用いる事への反対意見などを取り上げている。これらの結論として、イミテーションは第二言語習得においてはやはり効果的であると提案している。

Keywords: second language learners, language acquisition, imitation, learning theory

1. Introduction

Kymissis & Poulson (1990) note that imitation has been subject to a thorough and methodological investigation throughout the 20th century resulting in diverse and conflicting

theories in the role of imitation in first language development, particularly with infants and children. According to Kymissis and Poulson there are disagreements over the definition of imitation and the criteria best used, the underlying processes of imitation, and on the conditions in which imitation helps bring about language acquisition. Within the realms of language development Skinner (1957, p.55) provides an early definition of 'imitation' or what he then referred to as 'echoic verbal behavior'. "In the simplest case in which the verbal behavior is under control of the verbal stimuli, the response generates a sound pattern similar to that of the stimuli: for example, when listening to the sound *bearded*, the speaker says *bearded*."

The role of imitation within language acquisition took on prominence with Skinner's 1957 publication, "Verbal behaviour" which was an extension of his general theory of learning by operant conditioning and attempted to provide a behaviouristic explanation on language acquisition. Operant conditioning is the use of consequences to modify behaviour, including verbal behaviour, and produced a response without necessarily observable stimuli (Brown, 2000). A behaviourist approach would focus on the language learner's responses to the stimuli provided from the learner's surroundings. We are what we are as an account of the environment that we live in and interact with.

Skinner identified and named five elementary verbal relations between controlling variables and verbal responses being *mand*, *tact*, *intraverbal*, *textual* and *echoic*. Skinner defined echoic as verbal vocal behaviour in which a speaker repeats the verbal utterance of another speaker. The size of the echoic may vary from, for example, a single phoneme to a sentence and may include non-verbal elements such as intonation, pitch and volume (Esch et al., 2010). Echoic behavior produces generalized conditioned reinforcement such as praise and attention when a young child correctly repeats a word or sentence (Sundberg & Michael, 2001). For example a parent may say to a child, "This is an apple. Can you say *apple*?" If the child responds *apple*, then the parent will most likely provide a positive physical and / or verbal reinforcement such as a smile or a *hooray*.

Skinner's work, including his theory on echoic behaviour or imitation, soon came under harsh criticism by generativist theorists such as Chomsky (1959) and also later cognitive approaches such as Bruner (1975). Both these researchers, although looking at imitation from theoretical standpoints, accuse Skinner's views on imitation as lacking depth and proposed that the process is much more complex than just a plain echoic verbal response. Chomsky's position

was that language is not learnable because it is acquired early, with little effort and instruction, and involves the building of complex grammar which is not explicitly found in stimulus input (Ornat & Gallo, 2004). "Skinner was interested in the behavioral aspect of language. Chomsky was interested in the origin of the grammatical knowledge that organizes it". (Ornat & Gallo, 2004, p.162).

Yet Novak (1978, p.922) suggests that these criticisms have been largely dispelled by the notion of "selective imitation" (e.g., Whitehurst & Novak, 1973; Whitehurst & Vasta, 1975), which highlights "how language can be imitative on some aspects (e.g., syntactic) yet be simultaneously novel on others (e.g., semantic)". Holdgrafer (1976) sees a role for selective imitation in language intervention while Sundberg and Michael (2001) note that behaviour analysis has contributed greatly to the treatment of children with autism and that this can be improved on with the use of Skinner's verbal behaviour theory.

In addition, it was theorized these echoic responses were important in that they were the leading indicator showing the language acquisition process had begun and also that these imitations, through repetition, have the potential to be stored and possibly internally analyzed (Seidenberg, 1997). Researchers such as Decety and Somerville (2003) look more closely at this key point of imitation becoming an internalized process and investigate them deeply within neurocognition-developmental and cognitive science fields. In recent years more and more researchers have found imitation an interesting topic for investigation with imitation being widely recognized within the process of language acquisition as a complex and detailed topic. It has become necessary for the topic as a whole to be broken down into the ideas of different 'levels' of imitation (Byrne & Russon, 1998).

While we agree that language learning is not "**mainly** a matter of imitation", we do believe that if a deeper, cognitive processing occurs during the imitation, then, this form of imitation does have an important role to play in the acquisition of both a first and a second language. This paper presents evidence, using research and real life examples that, while language acquisition cannot be acquired mainly through imitation, the cognitive processing form of imitation is important in its own right within first and second language learning and theory.

Surface Imitation

Stern (1970) in Brown (2000, p. 50) quoted a popular argument at the time that "Language

learning is mainly a matter of imitation. You must be a mimic. Just like a small child. He imitates everything.”

Brown proposed that this particular belief, like many others, needed to be demythologized when thinking about language learning.

People do not just mimic everything and become fluent in a language, be it a first or second language. If this were true, grammar and the processes of language acquisition would be of a much less focus in language classrooms today. Language learners would surely only need to spend countless hours imitating native speakers when they speak or even simply repeating discourse from a CD player!

However, is this ‘level’ of imitation that Stern refers to, a somewhat narrow view of the definition of imitation? Could this ‘echoic language” that seems to occur in early language development be better defined as simply ‘repetition’ or ‘basic repetition’? This view would suggest that the imitation undergoes no cognitive effort and is basically only a ‘try out’ to see if the utterance can be made. One could argue that most mimicking takes place outside the classroom, in real life or meaningful situations. This in turn, would lead to a more beneficial learning experience for the learner, as the learner would be applying the act of imitating to a meaningful situation thus requiring more thought and conscious effort to make sense of or understand what they had imitated.

This paper assumes that the imitation or mimicking referred to in Sterns statement is void of any cognitive processing and is more akin to the “surface structure imitation” as suggested by Brown (1990, p 39).

When looking at past research, recent theorists have agreed with Brown, that a surface structure imitation theory lacks sound support as a language acquisition theory. Fromkin et al (1998, p 328) states that;

“Don’t children just listen to what is around them and imitate the speech they hear? Imitation is involved to some extent, of course, but the sentences produced by children show that children are not imitating adult speech. Children do not hear ‘Cat stand up table,’ or many of the utterances that they produce.” (Fromkin et al 1998, p 328).

Fromkin et al (1998, p 329) goes on further to suggest that children with speech impairments, without the ability to imitate, understand what is being spoken to them and that they can start

using the language orally when the impairment is overcome.

Brown (1990, p 39) even suggests that children can become bad surface imitators when learning a language. Children are much more concerned about the meaning of the language than whether it is grammatically correct. Often children repeat what they believe to be semantically correct, such as "I *buyed* ice-cream," rather than what they were told to repeat, "I *bought an* ice-cream", therefore, imitating the deeper meaning but not necessarily imitating the surface structure. Thus, having children learn a language by rote learning, which in turn could be seen as an act of imitation, may not be so effective.

For example, a three-year old boy, who had just seen the movie "Finding Nemo" was asked by his mother who his favorite character in the movie was. The boy replied, "Bruce···raaaaaah!!" (Raaaaaah, being the scariest noise he could make while also trying to make a scary face.). His mother then asked him what kind of animal Bruce was. He replied, "Big Fish···raaaaaah!" His mother promptly corrected him, "No, Bruce is a *shark*." In which her son dutifully replies, "Yeah, Bruce is shark···big fish···.raaaarh". After numerous attempts by his mother, the meaning of 'shark' would still not register. What is even more interesting is that he seemed to think that his mother had just taught him that the 'big fish's' full name was, 'Bruce is a shark!'

In contrast to children, Brown (1990, p 63) finds that adults, with their greater aptitude for concentration, have a better aptitude for rote learning. This, however, is usually used as a short-term memory tool and is not generally effective for long-term language acquisition. Ausubel (Brown 2000, p 88) suggests that within Meaningful Learning Theory, learners must link and interact new material in a meaningful way with material already established. This process is necessary to enhance retention and is not adequately achieved by rote learning. Perhaps without involving meaning, or making the imitation into deep structure imitation, then the imitation serves little purpose for internalizing the language. Brown states that;

"If adults learning a foreign language by rote-methods are compared with children learning a second language in a natural, meaningful context, the child's learning is usually deemed superior. The cause of such superiority may not be in the age of the person, but in the context of learning. The child happens to be learning language meaningfully, and the adult is not." (Brown 1990, p 63).

On a personal reflection, one of the authors interviewed a Tongan born New Zealander, now living in Japan. Whenever he called the author at his place of work, the school secretary put him through to the phone at the author's desk. After listening to the author talk, usually very quickly and using a lot of colloquial New Zealand sayings, the secretary was astonished at how well the person who called could understand English. When informed that the caller was in fact a New Zealander, the secretary could not comprehend and said that the person on the telephone was Japanese. Whenever the author's friend called and asked to speak to the author, his Japanese was so perfect that even the Japanese secretary thought he was Japanese! It is known that Japanese pronunciation is very similar to that of Tongan, but the author is also aware of his friend's Japanese speaking ability. Upon interviewing him, he admitted that actually he did not literally know what he was saying when he called. A Japanese friend had told him what to say so he just remembered the words and how to say it! His positive reinforcement to remember the sentence was that he always got the correct person on the phone.

In this instance, surface structure imitation has worked as the intended outcome was achieved. However this form of imitation is incidental because it could only be used when calling someone on the phone. The fact that he did not know the meaning of what he said tells us that no cognitive thought has taken place. Ausubel (Brown 2000, p 88) suggests that within Meaningful Learning Theory, learners must link and interact new material in a meaningful way to enhance retention. This is not adequately achieved by mere rote learning. Therefore, the chances of this person's understanding of the language being increased as a result of the imitation act are slim.

This brings us to how imitation can help the learner acquire a language. As the example above we can see that even the rudimentary surface level imitation can help with not only pronunciation but also other factors of the spoken language such as tone, intonation, speaking speed, rhythm and other linguistic factors. Simply put, even those learning just a few words in a second language usually repeat the word to check their pronunciation, intonation or whether they are actually able to make the right sound with their mouths. More advanced speakers may use repetition or imitation as a tool to try and achieve a 'native like sound' to their speech. Ohta (2001) provides evidence of this when she found that the most common form of second language private speech (speech whispered, spoken softly or when listeners were not present) was repetition. This helped the learners "develop phonological and articulatory control of new

material.” (Ohta 2001 in Mitchell & Myers 1998, p 205).

Possible failings of using repetition or imitating as a pronunciation learning tool, are however present. For example a Japanese language student who learnt and majored in Japanese at a New Zealand University discovered that upon moving to Japan she immediately found it difficult to make herself understood. Most of the Japanese she had learnt from New Zealand teachers of Japanese did not have the natural pronunciation of native Japanese speakers. Thus, a lot of the repetition and pronunciation and hard work done on improving her Japanese at University in New Zealand, had left her with a pronunciation that was not understandable in Japan. It is most probable that she had even received positive reinforcement for her pronunciation production in New Zealand. It goes without saying that her degree would have been a major positive reinforcement! When asked about this, she confided that coming to Japan was most discouraging for her at the start. She was looking forward to putting into use what she had learnt and found out that she could not even make herself understood! She realized that she had to relearn the correct pronunciation and try to rid herself of the bad pronunciation habits she had thought were correct for so long. Luckily, these frustrating fossilized linguistic forms can be changed with the appropriate motivation and the necessary practice.

2. ‘Deep Structure Imitation’

Therefore, apart from the obvious pronunciation benefits stated above, we find evidence stacked against “surface structure imitation” for being the ultimate tool to language acquisition. Surface imitation is not to be confused with cognitively reflective imitation, which carries with it a cognitive workload. Put more simply, when the learner is imitating, they are also reflectively thinking about what they are imitating. This is what Brown (1990, p 39) refers to as “deep structure imitation.’ Ohta (2001), also took the research further to reveal that the repetition used by learners is usually then manipulated by the learner to test new ways of using the learned utterance. This provides evidence of a deeper level of cognitive function while repeating and that ‘deep structure imitation’ does have an important role for the language learner. The importance and also the purpose of the imitation however varies greatly within the many factors of language learning which have, in the past, and are still to this day being discussed and researched. Some of these variables are highlighted below.

Variables of ‘Deep Structure Imitation’

The learner is attempting to acquire a first language or a second language.

The age of the learner.

The learner’s level of competence in the language.

The motivation of the learner to learn the language.

The preference for the learner towards either a visual or auditory learning style.

The innate individual language learning abilities of the learner.

Non-verbal styles of communication.

It is necessary to mention here that by no means do we wish to suggest that these are the only variables in which the importance and use of deep structure imitation would differ between learners. However, these are the variables, which we have chosen to discuss in this paper.

First and Second Language Learning

Relevant research showing evidence of deep structured imitation in learners attempting to acquire a first language and second language is abundant, some of which has already been discussed above. It is also understandable that there could be many differences between the two. Personally, learning Japanese as a second language we find ourselves sometimes mimicking or repeating aloud what people have said or even what has been heard on the radio. This is carried out as mainly a remembering strategy, giving time to process all the words cognitively and then contemplate meaning. Even today imitating what people say has become a habit, be it to a higher level of playing with the language, trying to make rhymes or jokes.

When listening to a friend’s six-year old child’ learning both English and Japanese, much of the same type of language learning processes can be observed. He also seems to make the similar mistakes, whether they are in English or in Japanese. He talks to himself a lot and may ask a question out aloud to himself as a tester, to see how it sounds, displaying surface structure imitation. However, he then proceeds to ask someone else the same question, exhibiting deep structure imitation. Chesterfield and Chesterfield (1985 cited in Brown 1990, p 130) deemed this ‘self talk’ a way to practice the second language and also gain time to think about the meaning and consequences of using the language. On observation, this child seems to do this with both languages. He has even been observed playing with the Japanese language, showing a deeper cognitive processing, in the same way that these writers have done and are still

doing during our path to Japanese fluency.

Age of the language learner

However, in this example, not only first or second language acquisition is compared but we must also draw comparisons with the age of the learners. Here we must consider aspects, such as, the possibility of a Critical Period as suggested by many researchers and theorists (Mitchell 1998, p 24). If so, does more imitation occur during this age? Brown (1990, p 59) found strong evidence for a Critical Period for accent acquisition only. Also as mentioned above Brown (1990, p 63) found evidence that children learn better by drawing meaning from their imitating, and adults are better rote learners. The learning environments being usually quite different for both adults and children learners, could however account for this. It is not usually necessary for an infant to rote learn the names of traffic signals in the target language to obtain a driving license, and conversely adults do not usually need to imitate and draw meaning from another child's toy playing language in the sandpit!

Language Competence of the Learner

The learner's level of competence also affects the nature and the manner to what imitation level the learner will engage in. Here the language can, in turn, be broken down even further still, into more variables to include the competence in the various modes of the language. For example, speaking, listening, writing, reading or the body language, gestures or facial expressions used when communicating in the language. To investigate all of these variables, even when narrowing the investigation to only 'imitation' occurring within these variables, would be a lifetime task. However, it would appear that whatever the level of competence of the learner, an ongoing deep structured imitation is required for the learner to internally process, think about and therefore progress in their language acquisition.

Motivation of the Learner

Looking briefly at motivation we see that some learners may have a higher motivation for learning the language. This maybe to lessen ridicule by peers or to 'fit in', increase job prospects, gain better communication with a partner, to name but a few. Thus the highly motivated learner may spend much more time engaging in deep progressive imitation than those that are low in motivation. At one high school that was observed in Japan, students will liberally use English slang or even bad language heard on TV and in movies. With perfect pronunciation they will blurt out such phrases as "What's up!" or "Hey, man!" or "Oh my god!"

or "I love you!" Furthermore, well known, gutter words such as 'F _ _ _' or 'Sh _ _' and such like are often heard. Why? Are the actors or actresses or the characters that they portray in the movies cool? This goes without saying. Most young people idolize the actors, actresses and also their characters, which they see on the big screen. Using these utterances in class may get a laugh from peers and reinforce the behaviour or even achieve another goal, eliciting a reaction from the teacher.

Usually these students also have a good idea of the words meaning, however it is difficult as an English teacher to scold someone for speaking English in class of their own will. Culturally, Japanese are a very shy people and generally not so willing to speak English in class, for fear of making mistakes. As most English teachers who have taught in Japan well know, voluntary utterances of English are a very uncommon occurrence in a Japanese classroom. In most cases, it is necessary for the teacher to explain the words meanings and how and when they are used. If the words are of a more vulgar variety, the student can be informed that there is a time and a place for such words but still a feeling of regret may remain with the teacher, as any more future attempts by that student to voluntarily speak English in class may have been curbed. Here the onus is on teachers to reinforce successful strategies, other than surface imitation, and to encourage students to try to motivate students to learn the target language by using alternative cognitive learning methods.

Language Learning Style: Visual vs. Auditory

The preference of the learner towards either a visual, or an auditory input style (Brown 1990, p 122) can also vary, not only in the individual learner, but also in the type of language that is being acquired. Does a tendency in learning 'orally' and 'aurally' as opposed to 'visually' stimulate more imitation and therefore more speaking/listening competency when learning a second language? Listening and speaking is more important and sometimes deemed more effective as a learning pedagogy for some cultures. The Maori of New Zealand, being an oral culture and until recently, had no written form of the language, base most of their pedagogies around an oral/aural /physical syllabus incorporating te reo (language), waiata (song) and te tinana (physical education). This type of learning requires vast amounts of imitation, whether it is the learning of tribal chants, waiata, karakia (prayer) or haka (action dances), which are all important to the culture. There are also many trained tribal elders who are able to recite entire tribal whakapapa (genealogies), which entail hundreds of names all in their correct places without making a single mistake. We would suggest that these forms are deep structure

imitations, as the cultural practices mentioned previously require cognitive processing with the exception being that the tribal elders are already completely fluent in the language. Research into this topic is critical as the implications can run deeper than first thought. Such a major implication could be that in New Zealand, the European, visually based mainstream education system is disadvantaging the Maori people who naturally learn better by oral/aural pedagogies. Here, the socio-economic status and advancement of a race could be at stake.

Innate Language Learning Ability

The innate language learning abilities of the individual learner also, have to be considered. Do some learners have 'some' access to universal principles that we acquire at birth? This perspective certainly challenges a behaviourist approach. Little is known about how much people engage in deep structured imitation and whether those that do, progress more quickly than other learners, or not. Certainly, there are people that tend to have a knack for learning second languages just as there are people that find it more difficult. This is even true for first languages as within children learning a first language there are those that progress more quickly and those whose progress is somewhat slower.

This phenomenon is evident though the act of when learners can imitate utterances without consciously realizing they are doing so. Such examples could be using 'fill in words' of the second language such as in English we might say 'umm', 'ahhh..let me see' and such like. Such 'fill in words' are not usually studied but they must be 'picked up' and imitated from some source somewhere along the course of learning the language. We often find ourselves saying such words as 'yosha' in Japanese which people say, almost like a sigh, when sitting down. The word doesn't translate into English and the word has not been formally studied so a radical deduction would be that imitation is taking place. We have also noticed that some students can even mimic what first language speakers say perfectly, without even thinking. This also has made us aware of our own verbal habits such as saying 'OK' as an 'attention getter' before explaining something during a lesson. As soon as the word is used, the students repeat it. If these students were to apply some cognitive thought to why this word is used and what meaning it had in context, the mimicked words could possibly be internalized and remembered by the student and then used in a later situation.

Non-verbal styles of communication

Lastly, it is important to remember that it is not only vocal imitation that occurs during

the process of language acquisition. There are many other types of imitation that occur. This is largely due to the fact that languages are not necessarily based on verbal styles of communication alone. There are other factors such as facial expressions, gestures and subtle body movements, which are a package deal when communicating in the target language. Hand gestures are used differently when communicating within different cultures and even eye contact can be interpreted differently depending on the cultural background of the speaker and listener.

If we look at even a simple non-verbal part of communicating such as eye contact, we can see where deep structured imitation can become important. Eye contact is seen as essential for the European in that it shows the speaker that the listener is listening. Therefore employers would expect eye contact when talking to their employees. To Japanese, eye contact conveys superiority; therefore employees usually avoid eye contact with their employers. Maori people culturally regard eye contact as being cheeky or defiant so an employee would be taking a risk making eye contact with their Maori employer. Here language learners need to know which non-verbal form of communication is important in which situation. There could even be imitation, surface or deep structured at play when a student copies written sentences from a classroom blackboard! Such non-verbal parts of a language are not only important tools for learning a language, but also learning how to effectively convey and understand the language according to the social rules in which the language is used.

Conclusion

In conclusion we have presented evidence from both the relevant literature and real life examples to show that language learning is not “mainly a matter of imitation” as stated by Stern (1970). Imitation cannot possibly be the ‘be all and end all’ of language acquisition. In respect to surface imitation, both first language learners and second language learners in turn show that surface imitation does not undergo any cognitive processing which would show an internalization of the target language. Due to this all the factors, which are necessary for a language to be adequately acquired are not in play, apart from reinforcing that they can or cannot physically produce the same sounds, or other such imitations such as gestures or facial expressions. Therefore, Brown’s opinion that this past language learning belief of imitation needs to be demythologized is supported. However, relevant literature and observed learning experiences, both personal and of other language learners, show support that a deep structured imitation does occur during imitation and is important in both first and second

language acquisition respectively. With the importance and processes of imitation being a hot topic within language learning research we can only fuel the fire and hope to gain more insight into this exciting phenomenon.

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