Core Unit 3: Language learning

**Lecture 3A: Language learning: Nature versus nurture**

Hello everyone. “I have never met a person who is not interested in language”. This is the first sentence from Steven Pinker’s book, The Language Instinct. And, he’s probably right. People always seem to be fascinated by different accents, and different words or phrases used in different areas. But, what is it about humans that enables us to do something as complex as use language? In today’s lecture, we are going to look at language acquisition from the point of view of the ‘nature’ and ‘nurture’ debate. First, I’ll investigate what this debate is. Then I’ll look at two different language learning theories from each side. Finally, I’ll explore the possibility that both nature and nurture play an important role.

So, firstly, what do we mean by ‘nature’ versus ‘nurture’? Well, the writer, Plomin, defines it as ‘concern with what causes humans to develop and behave the way they do’. Nature refers to our genetic ability to perform certain behaviours. This means that we’re born with certain talents – so, for example, being able to walk is human nature. Nurture, on the other hand, refers to how a person is influenced by the environment. So, if an airline pilot has become skilled after many hours of practice – this means the talent has been ‘nurtured’. And whether a certain characteristic is mainly due to nature, nurture, or a combination of the two is the debate. So, where does ‘Language acquisition’ fit in? Is language acquisition an innate ability, or is it a result of nurturing? Well, that’s what we’re going to look at next.

First, I’ll look at how language is ‘nurtured’, and I want to look at two theories. The first is called “Behaviourism”, which was highly influential in the 1940s and 50s. This theory suggests that children simply imitate, or copy, the behaviour of adults. This includes speech, and so that’s how children learn their first language. Based on what they imitate, children form habits of language use, eventually acquiring the full language. So, is this the way language is nurtured? But while behaviourism had a major impact on our understanding of language, and later theories retain elements of behaviourist ideas, research has now largely gone in different directions. Indeed, research shows that children actually only imitate about 10% of the language they hear. And that must mean that most of their language is acquired in some other way involving children’s developing social, biological, and cognitive abilities. That is, we need to look at the roles that communication with other people, the structure of the brain, and the way the brain operates may play in child language development.

This leads us to the second language theory connected with nurture, which is called ‘Interactionist theory’. As Lightbrown and Spada explain, this theory suggests that children learn their first language by interacting with their surrounding environment. Interactionists highlight the importance of ‘child directed speech’ in this process, which means that adults should simplify their language, so a child can understand what they are interacting with. In this way, the adult nurtures language development in the child. However, other researchers say that without child-directed speech, children still develop their first language, which may perhaps support the ‘nature’ side of the language acquisition.

And so that brings me on nicely to the second main part of today’s lecture – language acquisition as ‘nature’. And again, I’ll look at 2 theories. The first is Noam Chomsky’s ‘Innatism’ theory. You probably know that the word ‘innate’ means born with a natural ability to do something. So Chomsky says that this is true for children. We are born with a natural ability to learn our first language, in the same way that most people have that natural ability to learn to walk. This theory seems to be supported by research showing that children tend to acquire certain grammatical structures in a very regular, predictable order. Of course there are some who disagree with this idea- it has been argued in the literature that it ignores the role of human interaction

Second is the ‘Critical Period Hypothesis’, which is explained by Lightbrown and Spada. According to this, there is a limited time period in which a learner can acquire their first language using the brain’s built-in structures. And as more time goes on, the reduction of certain functions of the brain, known as lateralization of brain functions, makes it impossible to fully acquire a first language. So, it’s important that children are exposed to language at the right time. And this ‘Critical Period’ also applies to a child learning a second language, which suggests that the younger you learn a second language, the better! In fact, some research suggests that around age 9 is the best time to learn a second language, and that adults use different parts of their brains to learn second language than children do. Do you agree? Well, some theorists don’t, and argue that there is no critical period. In fact given the right conditions adults actually learn languages better than children.

So there we are… we’ve looked at various theories that side with either nurture or nature. Now… in the final part we’re going to see that it may not be that simple. In fact, most modern theories contain elements of both. To demonstrate, let’s look at some of Stephen Krashen’s work on second language acquisition. From the ‘nurture’ category is his ‘comprehensible input’ hypothesis, which states that a learner should be exposed to language slightly above his or her current level. Then, after some practice, the learner is likely to acquire that new language, and so increase their level. Then, from the naturist side comes his idea of ‘the silent period’. This is a period of time when learners aren’t ready to speak, or produce language- instead they are processing it in their minds. And as Krashen argues, this is a very natural stage before production occurs. Ok, so, from these two ideas I hope you can see that much influential language acquisition research indicates a complex interplay between the concepts of nurture and nature.

Ok, that’s all for today. We’ve looked at some arguments for ‘nurture’ and ‘nature’ concerning language learning. On the nurture side we looked at Behaviourism and Interactionist theory. Then, we looked at Innatism and the Critical Period Hypothesis on the nature side. Finally, we explored the idea that both nature and nurture are important, looking at the work of Stephen Krashen. So, which one is it, then? Nature or nurture? Or perhaps a combination of both? Ok, that’s all for now. Have a good day.

大家好。"我从未见过一个对语言不感兴趣的人"。这是史蒂芬-平克的《语言本能》一书中的第一句话。而且，他可能是对的。人们似乎总是对不同的口音，以及在不同地区使用的不同词汇或短语感到着迷。但是，究竟是什么让我们能够做像使用语言这样复杂的事情？在今天的讲座中，我们将从 "自然 "和 "培养 "争论的角度来研究语言的获得。首先，我将调查这个辩论是什么。然后，我将从双方的角度看两个不同的语言学习理论。最后，我将探讨自然和教养都发挥重要作用的可能性。  
那么，首先，我们所说的 "自然 "与 "培养 "是什么意思？嗯，作者普洛明将其定义为 "关注是什么导致了人类的发展和行为方式"。天性指的是我们执行某些行为的遗传能力。这意味着我们生来就具有某些天赋--因此，例如，能够行走是人类的天性。另一方面，天性指的是一个人如何受到环境的影响。因此，如果一个航空公司的飞行员在经过许多小时的练习后变得熟练--这意味着这种天赋是 "培养 "出来的。而某一特征主要是由于自然、培养，还是两者的结合，这就是争论的焦点。那么，"语言习得 "在哪里？语言习得是一种天生的能力，还是培养的结果？嗯，这就是我们接下来要看的。  
首先，我将看看语言是如何 "培养 "的，我想看看两种理论。第一个被称为 "行为主义"，在20世纪40年代和50年代具有很大的影响力。这一理论认为，儿童只是模仿，或复制成人的行为。这包括说话，所以这就是儿童学习他们第一种语言的方式。根据他们模仿的内容，儿童形成了语言使用的习惯，最终获得了完整的语言。那么，这就是语言的培养方式吗？但是，虽然行为主义对我们对语言的理解产生了重大影响，而且后来的理论也保留了行为主义思想的元素，但现在的研究基本上已经走向了不同的方向。事实上，研究表明，儿童实际上只模仿了他们听到的大约10%的语言。而这一定意味着他们的大部分语言是通过其他方式获得的，涉及儿童发展中的社会、生物和认知能力。也就是说，我们需要研究与其他人的交流、大脑的结构以及大脑的运作方式在儿童语言发展中可能发挥的作用。  
这就把我们引向了第二个与养育有关的语言理论，也就是所谓的 "互动主义理论"。正如Lightbrown和Spada所解释的，这一理论认为，儿童通过与周围环境的互动来学习他们的第一语言。互动论者强调了 "儿童指导性语言 "在这一过程中的重要性，这意味着成人应该简化他们的语言，以便儿童能够理解他们正在互动的内容。通过这种方式，成人培养了儿童的语言发展。然而，其他研究人员说，如果没有儿童指导的语言，儿童仍然会发展他们的第一语言，这也许会支持语言习得的 "自然 "一面。   
因此，这使我很好地进入了今天讲座的第二个主要部分--作为 "自然 "的语言习得。同样，我将看一下两个理论。第一个是诺姆-乔姆斯基的 "天生 "理论。你可能知道，'先天'这个词意味着生来就有做某事的自然能力。所以乔姆斯基说，这对儿童来说是真的。我们生来就有学习第一种语言的自然能力，就像大多数人有学习走路的自然能力一样。这一理论似乎得到了研究的支持，研究表明，儿童倾向于以一种非常有规律的、可预测的顺序获得某些语法结构。当然，也有一些人不同意这个观点--文献中认为它忽略了人类互动的作用。  
第二是 "关键期假说"，由Lightbrown和Spada解释。根据这一观点，学习者在有限的时间内可以利用大脑的内置结构掌握他们的第一门语言。而随着时间的推移，大脑某些功能的减少，即所谓的大脑功能的侧化，使其无法完全掌握第一语言。所以，儿童在正确的时间接触语言是很重要的。而这个 "关键期 "也适用于学习第二语言的孩子，这表明学习第二语言的年龄越小越好! 事实上，一些研究表明，9岁左右是学习第二语言的最佳时机，而且成年人学习第二语言时使用的大脑部位与儿童不同。你同意吗？嗯，有些理论家不同意，他们认为不存在关键期。事实上，在适当的条件下，成年人的语言学习能力实际上比儿童更强。

所以，我们就这样......我们已经看了各种理论，这些理论都是站在培养或自然的一边。现在......在最后一部分，我们将看到，事情可能没有那么简单。事实上，大多数现代理论都包含两者的要素。为了证明这一点，让我们看看斯蒂芬-克拉申关于第二语言习得的一些工作。在 "培养 "类别中，他的 "可理解输入 "假说指出，学习者应该接触略高于他或她目前水平的语言。然后，经过一段时间的练习，学习者就有可能掌握这种新语言，从而提高他们的水平。然后，从自然主义的角度，他提出了 "沉默期 "的观点。这是一个学习者还没有准备好说话或产生语言的时期--相反，他们在头脑中处理语言。正如Krashen所认为的，这是一个非常自然的阶段，在生产发生之前。好了，从这两个观点中，我希望你能看到，许多有影响力的语言习得研究表明，培养和自然这两个概念之间存在着复杂的相互作用。

好了，今天就说到这里。我们已经看了一些关于语言学习的 "培养 "和 "自然 "的论点。在教养方面，我们看了行为主义和互动主义理论。然后，我们在自然方面看了先天论和关键期假说。最后，我们探讨了自然和养育都很重要的观点，研究了斯蒂芬-克拉申的工作。那么，到底是哪一个呢？天性还是教养？或者是两者的结合？好了，现在就说到这里。祝你有个愉快的一天。