

## TRANSFER ACROSS SECOND LANGUAGE ACQUISITION THEORIES

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## ABSTRACT

*Transfer has been discussed from different points of view since the advent of Contrastive Analysis Hypothesis [13], [8]. Mishina- Mori [19] has defied transfer as merging grammatical properties from one language to another. The effect of transfer from a first language (L1) to a second language (L2) or a third language (L3) has been viewed differently in different theories of Second Language Acquisition (SLA). A number of these theories view transfer as having no role, some others as having debilitating effects and still others as having enhancive effects on L2 or L3 learning. This article has reviewed these different views of SLA theories toward transfer and claims that though these theories sound incommensurable in this regard, they can be considered as one tune in a complex dynamic but chaotic system of SLA known as Chaos/Complex System.*

*Keywords: Transfer, Debilitative Effect, Enhancive Effect, Chaos/Complex System.*

## INTRODUCTION

Since the advent of Contrastive Analysis Hypothesis to date, transfer has been a controversial issue. Transfer is defined as merging grammatical properties from one language to another language [19]. Different theories in second language acquisition (SLA) have approached the role of transfer from L1 to L2 or L3 differently. These theories sound incommensurable concerning their views towards the role of transfer in the process of SLA. Transfer has been considered as being debilitating [13], [8] enhancive [3], situation based (markedness theory, typology, psychotypology, and language contact study), the initial state of SLA (Competition model and connectionism), functioning as shadowing, or under the constraint of UG principles [27], [29]. These different views towards the role of transfer in SLA, however, can be seen as part of the reality of SLA in one respect. The purpose of this article is to review different views of various SLA theories towards transfer and to claim that all these views could be part of Chaos/Complex System [14], [15], [16].

## 1. Transfer: Different Views

Zoble [30] distinguishes between developmental and transfer errors on several grounds. First, transfer errors are different from those made by native speakers. Second, transfer errors are the result of low L2 proficiency. Third, transfer errors are the result of hypothesis making and

hypothesis testing when first language is used as the source of reflection. Fourth, transfer errors are the result of learners' inability to separate the two languages. Fifth, transfer errors are the result of L1 habits (outdated Contrastive Analysis Position). Finally, transfer errors represent an interlingual generalization. Zobl [30] also distinguished between structural transfer and transfer as a communication strategy. Structural transfer occurs when learners are developmentally selective of what features of first language should be transferred to L2. Communication transfer, on the other hand, occurs when learners try to express their ideas which are beyond their L2 knowledge of linguistics.

## 2. Transfer from Typological Perspective

Transfer has been discussed from typological perspectives. Cenoz (2003, as cited in [9]) ascribes transfer to typology saying that transfer is related to whether the form is typologically universal (unmarked) or not. According to Longman Dictionary, Typology refers to "a system or the study of dividing a group of things into smaller groups according to the similar qualities they have." Ellis [6] states that those features that are universal are unmarked, whereas those which are particularly found in some languages but not in other languages are marked. According to Eckman [5], learners will transfer unmarked forms when the corresponding target language form is

marked or they will resist transferring those marked forms whose corresponding forms in the target language are unmarked.

Moreover, transfer has been investigated from psychotypological perspective (Kellerman, 1983, as cited in [9]). Accordingly, transfer is constrained by learners' perception of what is transferable and what is not. Such perception is not the sole result of learners' L2 proficiency but it also depends on the structure of learners' first language. In this respect, according to Ellis [6], Swedish speakers transfer elements from their first language, but not from L2 Finnish.

### 3. Transfer from UG Perspective

Transfer is also discussed from the Universal Grammar (UG) perspective. This includes a variety of controversial theories of SLA with respect to the role of UG and transfer in SLA. Vanikka and Yobng-Schol (as cited in Ranong and Leung, [24]) propose the Minimal Tree Hypothesis which claims that only lexical categories – not functional – are transferred in the initial state of SLA. Eubank [7] develops the Valueless Features Hypothesis or Partial Transfer/ No Access which holds the idea that the early state of L2 grammar is determined in part by L1 grammar. Clahsen and Muysken [2] holding the idea of No Transfer/No access for L2 processes credit a general problem solving solution to account for the processes of second language learning. On the other hand, Platzach (1996, as cited in [27]) holds No Transfer/ Full access view to the processes of SLA. Schachter [26] takes Full Transfer / No access to SLA, whereas Schwarts and Sprouse [27] and White [29] credit Full Transfer/ full access to SLA.

### 4. Processability Theory

Håkansson, Pienemann, and Sayehli [10] believe that first language transfer is constrained by the processability nature of the given structure. According to processability theory, the initial state of L2 does not equal the final state of L1; this means that not all grammatical features in L1 can be transferred to L2. The assumption that L1 transfer may be developmentally constrained is not new in SLA research. SLA theories, within the UG camp, have different views towards the role of parameters in setting constraints for transferring first language features to second language

processing. Pienemann [22] sets developmental constraints to the processes underlying SLA. Wode (1976 as cited in [10]) showed that German learners of English were able to produce those features of their first language which they were able to process in the second language they were learning. This is referred to as Partial Transfer [23] or Developmentally Moderated Transfer Hypothesis (DMTH). According to DMTH [22], "V2 is not transferred at the initial state, and it may be transferred when the interlanguage (IL) system can process it" (p. 486).

### 5. Dynamic Model of Transfer

Dynamic Model of Transfer holds the idea that transfer is not a process but is a set of L1 constraints set on processing L2 grammar [11]. The idea is that transfer starts at phonological level in the sense that "learners generally transfer a similar sound from their L1 inventory to produce a desired utterance" and later they transfer higher features (p. 244). Sabourin, Stowe, and de Haan [25] distinguish between surface transfer versus abstract transfer. The former occurs when morphological aspect of L1 is transferred to L2, whereas the latter occurs when syntactic categories are transferred from L1 to L2.

### 6. Instance Theory

Instance Theory [17] holds the idea that learning initially starts in an algorithm form and moves to a memory based state. As learning becomes memory based, it leaves traces which help in the retrieval of information when learners need them. Each feature, in the target language, is an instance whose membership in a given category is determined in terms of similarities to other features in the same category or those which are already stored in the mind. Truscott [28] discussed Instance Theory from UG perspective. This includes Pinker's (1984 as cited in [6]) Subset Principle as well as Uniqueness Principle. Subset Principle refers to the idea that some parameters in a sentence constrain the order learners value other parameters. Uniqueness principle maintains that those forms which express the same meanings are ruled out. Transfer, within Instance Theory, is believed to occur when one of the instances would win the competition between instances and algorithms.

## 7. Bilingualism

There are three possible relationships between first and second language knowledge in the mind. The first variant is called separation which captures the idea of "coordinate bilingualism" associated with Weinreich (1953, as cited in [4]). Based on this view, there is no connection between the two systems. This holds the idea that in developing second language system, UG should be entirely available. In this model no transfer will happen. The second possibility is that the two languages form a single system. This is the extreme viewpoint towards the L1 and L2 relationship. The idea is called integration. Even in the area of vocabulary, it is believed that there is only one system which stores vocabulary alongside the other (Caramazza & Brones, 1980, as cited in [4]). There is, however, a model in between which considers the two systems in the mind as partially overlapping. This is partial integration or interconnection model. In fact, interference happens based on this view and this will be discussed later. These three models might create a continuum along which the learner language system develops. It might be the case that some parts of language be integrated and some others separated. Also she mentions that the model might be different from one person to another.

In the case of bilingualism, there are two possibilities of the role of transfer SLA[19]. One possibility is that the two systems are independent and do not influence each other. The second possibility is that the two separate systems may develop independently; the idea is referred to as Independent Development Hypothesis (IDH). IDH holds that L1 and L2 systems influence each other in the course of development.

## 8. Study of Language Contact

Language contact is another area of research in which transfer has been investigated [20], [21]. Odlin believes that language contact is the best place to predict the instance of transfer. Accordingly, certain principles would help us to distinguish the result of language transfer from other language changes. Transferability of an item in one region to a border region, to similar contact situations, and interlanguage recreation of imposed language was predictable if indigenous language showed transfer of

items. The result would be similar occurrence of the item in both L1 and L2; geographically multiple occurrence; and higher probability of occurrence of one item in one geographical place.

## 9. Transfer in Competition Model

Initially, learning of a second language is highly parasitic on the structures of the first language in both lexicon [18] and phonology. Having acquired a first language during childhood, the second language learner comes to the task of learning the second language with a well-organized neurolinguistic system. By building direct links between sound and meaning in L2, and by restructuring underlying concepts, the learner is able to increase the automaticity of lexical access in L2. This automaticity constitutes a "fire wall" against ongoing interference effects of L1 on L2. The more these two synonymous nouns link to separate concepts and words in another language, the stronger is the fire wall to interference. This type of separation must be achieved not only at the lexical level, but also at the phonological, syntactic, and semantic levels.

According to MacWhinney [18], there are two types of transfer: massive transfer and weak transfer. Massive transfer happens at the level of lexical learning and syntax. Syntax shows some item-based transfer effects, but less than the other areas, since these patterns are dependent on new lexical items. At the level of morphology, we only expect transfer of grammatical function, if these functions have a close match, not transfer of specific grammatical forms or patterns. In bilingualism, separate lexicons and grammars are constructed directly and there is no need to go through a process of undoing the initial connections formed through transfer. However, even in simultaneous bilinguals, some transfer and interference is predicted due to the interactive nature of cognitive processing.

## 10. Multi Competence: Transfer vs. 'Reverse' or 'Backward' Transfer

According to Cook [3], not only the first language might affect the way one learns a second language, but the reverse could also be true. He refers to the effect of L2 on L1 as reverse or backward transfer which could result in both debilitating and enhancive effects. Whereas debilitating transfer refers to the harmful effect of L2 on L1, enhancive

transfer refers to instances where L2 improves first language learning through brain training.

### 11. Transfer and Chaotic System

Chaos complexity (CC) science focuses on complex, dynamic, nonlinear systems [14], [15], [16]. It is not the science of fixed entity but dynamic; it is about process rather than state. CC studies the whole through interactions of its components. The result of behavior is not predictable. According to Baranger [1], any system whose "configuration is capable of changing with time is known as a dynamic system" (p. 7). The result of interaction is the emergence of behavior. It is assumed that dynamic processes of the systems are not dependent behavior or physical manifestations and depend only on the interaction between components of the system.

This brief review of transfer in some of the theories in SLA indicates different predictions on the plausibility and the type of role L1 has in L2 learning (Table 1). The proponents of each theory and view have claimed to back their assertion empirically. This paper suggests that there is only one place or one way to treat all these seemingly incommensurable perspectives towards the role of L1 in L2 learning in a harmonious polyphonic way, and that is to consider them as one tune in a complex dynamic but chaotic system of SLA. CC is a reaction to incapability of isolationist methodology of doing research in accounting for all the anomalies and exceptions those research enquiries came up with. A deep and close study of different research in each of these camps will illuminate how they approach the phenomena of transfer within specific contexts which is determined by methodology, instrumentation, data analyses, and interaction of these with each other. In this way, one cannot truly reject one idea in favor of the other or accept one idea at the expense of another. Transfer exists and as language learners, we have experienced both facilitative and debilitating effects of our first language on learning a second language. We have also experienced the uselessness of our mother tongue in acquiring some aspects of second language. Therefore, as common sense might back each of these instances as being true, the paper argues that language transfer can be explicated, justified and predicated within CC theory.

Theory in SLA	Scholar	View on Transfer
Contrastive Analysis	[13]	Differences
[30]	[8]	Developmental Vs. Error Structure Vs. Communicative Strategy
Typology	[9]	Markedness
Transfer and Markedness	[6]	
In relation to processability theory		Simpler T
Psychotypology	[9]	Learner's perception
UG related Discussion		
Minimal Tree Hypothesis	[24]	Only lexical category not functional
The Valueless features Hypothesis/ Partial Transfer/ No Access	[7]	Initial state
No Transfer/ No access	[2]	No
No Transfer/ Full access	[27])	No
Full Transfer/ No Access	[26]	General mechanism
Full Transfer/ Full access	[27], [29]	Both
Processability Theory	[10]	Constrained
Partial Transfer or Developmentally moderated transfer hypothesis	[23]	Constrained
Dynamic Model of Transfer	[11]	T as a product
Surface versus Abstract Transfer	[25]	
Instance theory	[17]	Instance and Algorithm Instances
Bilinguals		
Independent Development system :	[19]	Yes
Language Contact study	[20], [21]	Situation based
Competition Model	[18]	Parasitic L2
Pragmatic Transfer	[12]	
Multi competence	[3]	Reverse

Table 1. Transfer Across SLA Theories

### 12. Implications of putting transfer within CC theory framework

This paper has reviewed the issue of transfer from the perspective of different SLA theories. Coming up with the conclusion that all these views may be acceptable in certain contexts and with certain aspects of the issue, it implies that none of these views can be easily discarded nor can any of them be taken as the sole answer to the question of the role of transfer in L2 learning. As a way of dealing with the diverse views regarding the topic, the paper recommends putting the issue within the framework of CC theory. Looking at the role of transfer in SLA allows us to consider these seemingly different views as part of a single system, i.e. the CC system.

### References

- [1]. Baranger, M. (2002). *Chaos, complexity, and Entropy: A physics talk for non-physicists*, Retrieved March 12, 2010

from <http://necsi.org/projects/baranger/cce.pdf>

- [2]. Clahsen, H. & Muysken, P. (1989). The UG paradox in L2 acquisition, *Second Language Research*, 5, 1-29.
- [3]. Cook, V. J. (1996), Competence and multi-competence, In G. Brown, K. Malmkjar, and J. Williams (Eds.), *Performance and Competence in Second Language Acquisition* (pp. 57-69). Cambridge: CUP.
- [4]. Cook, V. J. (2003), *Changing the first language in the L2 user's mind, Draft intro to L2 effects on the L1*. Retrieved in March, 31<sup>st</sup>, 2008 from <http://homepage.ntlworld.com/vivian.c/SLA/Multicompetence/EffectsIntro.htm>.
- [5]. Eckman, F. R. (1996), A functional-typological approach to second language acquisition theory, In W. Ritchie & T. K. Bhatia (Eds.), *Handbook of Second Language Acquisition* (pp. 195-210). New York: Academic Press.
- [6]. Ellis, R. (2009), The study of second language acquisition (2<sup>nd</sup> ed.), Oxford: OUP.
- [7]. Eubank, I. (1993). On the transfer of parametric values in L2 development. *Language Acquisition*, 3, 183-208.
- [8]. Fisiak, J. (1978), Contrastive linguistics and the language teacher, (3<sup>rd</sup> ed.), Germany: Pergamon Press.
- [9]. Foot, R. (2009), Transfer in L3 acquisition: The role of typology, In Y. K. Ingrid Leung (Ed.), *Third Language Acquisition and Universal Grammar* (pp. 89-114). Toronto: Multilingual Matters.
- [10]. Håkansson, G., Pienemann, M., & Sayehli, S. (2002), Transfer and typological proximity in the context of second language processing, *Second Language Research* 18(3), 250-273.
- [11]. Hancin-Bhatt, B. (1994), Segment transfer: a consequence of a dynamic system. *Second Language Research*, 10, 241-269.
- [12]. Kasper, G. (1992), Pragmatic transfer, *Second Language Research*, 8(3), 203-231.
- [13]. Lado, R. (1957), *Linguistics Across Cultures*, University of Michigan Press, Ann Arbor.
- [14]. Larsen-Freeman, D. (1997), Chaos/complexity science and second language acquisition, *Applied Linguistics*, 18(2), 141-165.
- [15]. Larsen-Freeman, D. (2002), Language acquisition and language use from a chaos/complexity theory perspective. In C. Kramersch (Ed.), *Language Acquisition and Language Socialization*, London: Continuum.
- [16]. Larsen-Freeman, D. (2007), On the complementarity of chaos/complexity theory and dynamic systems theory in understanding the second language acquisition process. *Bilingualism: Language and Cognition*, 10, 35-37.
- [17]. Logan, G.D. (1988), Toward an instance theory of automatization. *Psychological Review*, 95(4), 492-527.
- [18]. Macwhinney, B. (1998), Models of the emergence of language. *Annual Review of Psychology*, 49, 199-227.
- [19]. Mishina-Mori, S. (2005), Autonomous and interdependent development of two language systems in Japanese/English simultaneous bilinguals: Evidence from question formation. *First Language*, 25, 291-315.
- [20]. Odlin, T. (1992), Transferability and linguistic substrates. *Second Language Research*, 8, 171-202.
- [21]. Odlin, T. (2008). Conceptual transfer and meaning extensions. In P. Robinson & N. C. Ellis (Eds.), *Handbook of Cognitive Linguistics and Second Language Acquisition*, pp. 306-340, NY: Routledge.
- [22]. Pienemann, M. (1998), Language processing and second language development: *Processability theory*, Philadelphia: John Benjamin B. V.
- [23]. Pienemann, M., & Håkansson, G. (2007), Response article full transfer vs. developmentally moderated transfer: A reply to Bohnacker, *Second Language Research*, 23, 485-493.
- [24]. Ranong, S. N., & Ingrid Leung, Y. K. (2009), Null objects in L1 Thai-L2 English-L3 Chinese: An empiricist take on a theoretical problem. In Y. K. Ingrid Leung (Ed.), *Third Language Acquisition and Universal Grammar* (pp.162-191). Toronto: Multilingual Matters.
- [25]. Sabourin, L., Stowe, L. A., & de Haan, G. J. (2006), Transfer effects in learning a second language grammatical gender system. *Second Language Research*, 22(1), 1-29.
- [26]. Schachter, J. (1996), Maturation & The issue of Universal Grammar in Second Language Acquisition. In W. Ritchie & T. K. Bhatia (Eds.), *Handbook of Second Language Acquisition*, pp. 159-193. New York: Academic Press.

[27]. Schwartz, B. D., & Sprouse, R. A. (1996), L2 cognitive states and the full transfer/full access model. *Second Language Research*, 12 (1), 40.

[28]. Truscott, J. (1998), Instance theory and Universal Grammar in second language research. *Second Language Research*, 14(3), 257-291.

[29]. White, L. (1985), The acquisition of parameterized grammars: Subadjacency in second language acquisition. *Second Language Research*, 1, 1-17.

[30]. Zobl, H. (1980),. Developmental and transfer errors: Their common bases and (possibly) differential effects on subsequent learning. *TESOL Quarterly*, 14 (4), 469-479.

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