A Study of the Process of Transfer in Language Learning

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1 Introduction

The definition of 'transfer of learning' is made from the point of view of Educational psychology. In positive transfer, the initial learning facilitates the second activity. When the second is impaired the effect is called negative transfer. Positive transfer in language learning involves language learning theory as well as psycholinguistic research since it pays attention to the process learners are likely to go through and how their adaptability can be developed.

2 Historical Sketch and Classifications of Transfer

Two types of education are stated according to the controversial discussion in the 19th century: 1) Formal Education and 2) Material Education. In Formal Education the effects of learning will transfer, and general abilities such as memory and inference can be strengthened by formal exercises. This stands on a firm belief that Greek, Latin and rhetoric as mental exercises should be taught. On the other hand, some people with the opinion of Material Education tried to teach specific factual content and disciplines such as physics and chemistry.

The classification of transfer in Educational psychology is as follows: 1) habits learned in the classroom will transfer to different situations in the learner's life away from school, and 2) respondent activities are not entirely specific to the conditions that prevail at the time of learning. Similarly Bruner's classification is as follows: 1) the extension of habits or (skills) or associations, and 2) the transfer of principles and attitudes. In conclusion, Rivers comments that there are two major positions in psychological theory with regard to positive transfer---that originating with Thorndike and emphasizing the transfer of "identical element", and the Gestalt version called "transposition". One form of transfer is called successive transfer or specific transfer, while the other form is bilateral transfer or non-specific transfer.

3 Behaviorism and Language Learning

Specific transfer carries the implication of behaviorism and neo-behaviorism,
for they share the same theory of association between stimuli and responses. Therefore, specific transfer can be explained by following the theory of structural linguistics.

In 1925, American linguists led by Sapir and Bloomfield started the synchronic description of the utterance because it is observable, objective and scientific. Bloomfield's opinion of language was an influential one; language is a set of patterns served in an organization and there is a social correspondence between conditions and utterances. On the other hand, behaviorism which originated with Watson in 1912 also claimed that it used objective procedures and denied the introspective aspect of man. Both of these show the introspective phenomena such as behavior, mind and affection can be explained by the association of stimuli with responses. Above all, descriptive linguistics, which is based on a large amount of data elicited by the discovery procedure, is consistent with a socially institutionalized sign system.

However, descriptive linguists who started with the discovery procedure of phonology, morphology and then syntax became caught up in semantics. Under the influence of neo-behaviorism in 1930's to 1940's, Osgood and Mowrer proceeded to the study of meaning as a mediating response in the Audio-lingual Method. In the meantime other behaviorist psychologists emphasized the importance of reinforcement. According to Skinner, habits are strengthened by reinforcement or reward. As in his teaching-machine methods there appears to be a reinforcement of the right response by immediate feedback. Thorndike's "law of effect" states that the strength of the connection is increased by satisfaction. Methodologically Fries introduces such reinforcement procedures as the form of repetition, transformation, substitution, replacement, expansion drills and audio-visual aids.

The Audio-lingual Method is worth describing as a model of specific transfer since it is based on a habit formation theory to develop analogy which is characteristic of transfer. Theoretically, it is a series of stimulus-response correspondences and intraverbal associations. As a procedure, a teacher presents a structure in the foreign language, drills a student in correct pronunciation and intonation, and then uses it as a frame for modeling other utterances by substitution, expansion, and transformation. Each change is minimal, and this practice continues to the point of "saturation" or automatic performance.

A counter argument is whether the method is truly applicable to positive transfer. We all know the fact that young children acquire very complicated grammar even though they do not take any explicit lessons. Furthermore, linguistic structures are often very complex. Rivers replies to this with examples of the "selective process" and "scanning process", originally claimed by Lashley. When the connection between stimulus and response is established within our language system we will respond not only the same condition but to a similar one because the principle of 'generalization' is at work. Moreover, 'generalization' occurs more on the basis of similarity of meaning than on the basis of similarity of sound.
4 Mentalism and Language Learning

The other type of transfer called non-specific transfer or bilateral transfer implies mentalism and cognitive code learning theory since both refer to perceived relationships between early learning and later learning. Besides, either of them denies the assumption that teaching how to manipulate linguistic structures will automatically facilitate using the language.

Gestalt theory which supports theoretical background for non-specific transfer began toward the close of the 19th century in Austria and South Germany as a protest against the associationist school in North German. Wertheimer claims that the sensations of perceptual experience do not stand in a one-to-one relation to the physical stimuli. The nature of the parts is determined by the characteristics of the whole, and the parts are fused and interdependent, interacting in a specific structural manner. While in behaviorism the nervous system of the observer and the observer’s experiences register the physical input in a piecemeal way, in Gestalt psychology the neural organization as well as the perceptual experience registers as a whole change and therefore changing one part has no effect on the others. In 1923, Wertheimer formulated the principles of perceptual ‘organization’ on how the perceptual field becomes grouped wholes. Among them, the following factors are deeply related: "factor of proximity", "factor of similarity", "factor of closure", "factor of good form", "factor of good continuity", etc. Therefore, parts that are close and similar to each other tend to form units.

One of the methods applied by "factor of closure" is the 'cloze procedure'. The principle of "closure" means that what is missing tends to be supplied as a highly structured whole. As a procedure, every 5th to 10th word is removed from a series of sentence and the students put in the brackets the most appropriate word judging from what comes before or after. According to Eskey, the 'cloze procedure' is of great use in getting students to take the initiative in reading as they have to extract what they have learned to solve the problem. In addition to this, since the focus is on units of discourse students are encouraged to read it in chunks and not word-by-word. Likewise, such procedures as 'controlled composition', 'dictation' and 'guided composition' make use of the "principle of closure". As for 'dictation' students write down what they hear from a series of sentences. They are required to comprehend the whole story in order to deal with 'dictation'. If the skills of listening, speaking, reading and writing are judged separately from their context, the outcome will only be independent of communicative abilities. The value of 'dictation' is that it involves listening comprehension by way of sound discrimination besides orthography and morphological understanding.

As Chomsky describes function of mind to trigger linguistic mechanism, it is of importance to appeal to the intellect of a learner to awaken his/her creativity. The significance lies in relating a learner's thinking to vocabulary building, for
instance. If a learner does so, s/he will acquire the principle of 'organization' and therefore non-specific transfer can be triggered.

5 Conclusion

It has been proved so far that specific transfer underlies specific practice derived from Habit Formation Theory, while non-specific transfer underlies general practice derived from the theory of Gestalt psychology. These two different types of transfer parallel each other, but yet one type of study may not be sufficient for manipulating language. The priority can be put on general practice from the point of view of the objectives but yet specific practice serves as regulating the sequential order of the sentences. The foreign-language teacher should play an important role in providing the students with stimulation for language development in both accuracy through specific practice and fluency through general practice.

Consequently and significantly, understanding of meaning is a common factor of the two different types of transfer. Therefore, transfer takes place when meaning is achieved to fit into the value system of the learner.

References

Encyclopaedia Britannica, William Benton, Publisher, 1970.
Igarashi, Jiro, Eigo Jukyou Katei no Kaizen, Taishukan, 1981.
Naya, Yuichi, Gengo Katsudo no Kangaeki, Susume-kata, Taishukan, 1975.