## Movement in Syntactic Edges and Cyclic Linearization Approach: Evidence from Scrambling in Kalhuri Kurdish

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## Abstract

Movement is one of the basic properties of human languages. Studying and accounting different movements is one of the main concerns in generative linguistics. One of the movements which attracts the interest of many linguists is Scrambling. Scrambling is the movement which occurs in languages with free word order including Kalhori Kurdish. Kalhori Kurdish is an Iranian language spoken in Kermanshah and Ilam provinces, west part of Iran. In this article, we attest the merits of two rival movement approaches, namely Syntactic Edges (Chomsky 2000, 2001) and Cyclic Linearization (Fox & Pesetsky, 2005).

Chomsky (2000) introduces the phase-based approach minimalism. He argues that syntactic derivation creates syntactic units, called phase. Chomsky (2000, 2001) claims that full argument structure v\*P and CPs are strong phases and spell-out applies to these strong phases. Spell-out is viewed as an operation that transfers syntactic objects in each strong phase to phonology and logical form. The consequence of such an approach is the Phase Impenetrability Condition (PIC). An important consequence of PIC is that edges or syntactic escape hatches must be postulated at each strong phase. In phase-based approach, spell-out makes elements in the complement of strong phases inaccessible to further operations in the higher phases and movements which are triggered by features in higher phases that only occur through the edges of strong phases in successive cyclic fashion; therefore, "edges" provide a path for any upward movement.

On the other hand, Fox and Pesetsky (2005) argue that movement can occur in nonedge zones as object shift in Scandinavian languages. They claim that movement is possible without postulating Phase Impenetrability Condition (PIC) and edges. Fox & Pesetsky (2005) claim that spell-out is an operation which changes

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asymmetric hierarchical structure in syntax into linear structure in phonology. They argue that even after spell-out, syntactic objects can be accessible to operations in upper phases if they do not violate the linear preservation principle. In this article, we try to compare strengths and weaknesses of these approaches in the light of Scrambling in Kalhori Kurdish.

In Kalhori Kurdish, SOV is the unmarked word order. Scrambling provides marked interpretation by changing this unmarked word order. Scrambling is a common operation and feature-based process in Kalhori Kurdish. In both approaches, Scrambling in Kalhori Kurdish triggers phrases with contrastive focus feature to move cyclically from lexical phase to functional phase through phase edges to the *spec* of focus phrase. By using some evidences such as the position of sentence adverbs and phrase adverbs and the presence of overt subject in tag questions, we proved that EPP feature on TPP cannot trigger short distance scrambling in Kalhori Kurdish. Therefore, short distance scrambling is an A'movement to the spec of focus phrase which is located at the top of TPP. Also, longdistance scrambling is an A'-movement to satisfy focus feature. Based on Syntactic Edges approach, scrambling in Kurdish occurs exclusively in the specs of v\*P and CPs. Uniformity in short- and long-distance scrambling is the main outcome of analyzing scrambling in this approach. Although this approach provides a unified mechanism in explaining short- and long-distance scrambling in Kalhori Kurdish, it cannot provide an adequate explanation for long-distance binding of /ev/ as an eclitic pronoun.

Miagawa (2006) claims that scrambling occurs at the edges of phases and proposes two kinds of movement to the Spec of CP, movement of WH phrase and long-distance scrambling. He argues that only WH phrase inters agreement with the head of Cp and long-distance scrambling does not inter agreement relationship with the head of CP. Miagawa claims that long-distance scrambling occurs as an optional movement only to satisfy edge feature. Scrambling evidences in long-distance scrambling manifests that unlike Miagawa (2006), the landing site of scrambled phrase in Kalhori Kurdish is not the *spec* of Cp but *spec* of FocP.

On the other hand, in Cyclic Linearization, scrambling in Kalhori Kurdish can occur both in edges zone (short and long distance scrambling) and in nonedge zone (multiple scrambling). This approach explains long-distance binding of /ey/ as a clitic pronoun properly because the binding relationship between clitic pronoun and its antecedent A does not violate the linear preservation principle, so, it is an licit movement, which is one of its merits over syntactic edges. Contrary to Kurdish data and writers' linguistic intuition, long-distance scrambling of verb phrase is licit movement in Cyclic Linearization. This is one of the weaknesses of Cyclic Linearization. Overall, Cyclic Linearization, in spite of lack of consistency in its concepts, can suggest more adequate explanation for scrambling in Kalhori Kurdish than Syntactic Edges.

**Keywords:** Scrambling, Syntactic Edges approach, Cyclic Linearization approach, Kalhuri Kurdish