

## TOVUSH O'ZGARISHLARINI LINGVISTIK MODELASHTIRISHNING ILMIY MANBALARI

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**Annotatsiya.** Ushbu maqolada tovush o'zgarishlarini lingvistik modelashtirishning ilmiy manbalari haqida va ular uchun bugungi kundagi zarurat, qanday manbalar lingvistik modelashtirish uchun ilmiy manba bo'la oladi va shu kabi qator savollarga javob beriladi. Aytish lozimki, tovush o'zgarishlarini lingvistik modelashtirish tilshunoslik sohasidagi ushbu yo'nalishning osonlashuviga yordam beradi .

**Kalit so'zlar:** *tovush o'zgarishi, lingvistik model, modelashtirish, ilmiy manba, tilshunoslik*

### SCIENTIFIC SOURCES OF LINGUISTIC MODELING OF VOICE CHANGES

**Annotation.** This article answers a number of questions about the scientific sources of linguistic modeling of sound changes and the need for them today, what sources can be a scientific source for linguistic modeling. It should be noted that the linguistic modeling of sound changes helps to facilitate this direction in the field of linguistics.

**Keywords:** *sound change, linguistic model, modeling, scientific source, linguistics.*

### НАУЧНЫЕ ИСТОЧНИКИ ЛИНГВИСТИЧЕСКОГО МОДЕЛИРОВАНИЯ ИЗМЕНЕНИЙ ГОЛОСА

**Аннотация.** Данная статья отвечает на ряд вопросов о научных источниках лингвистического моделирования звуковых изменений и необходимости их сегодня, какие источники могут быть научным источником для лингвистического моделирования. Следует отметить, что развитию этого направления в области языкознания способствует лингвистическое моделирование звуковых изменений.

**Ключевые слова:** *изменение звука, языковая модель, моделирование, научный источник, лингвистика.*

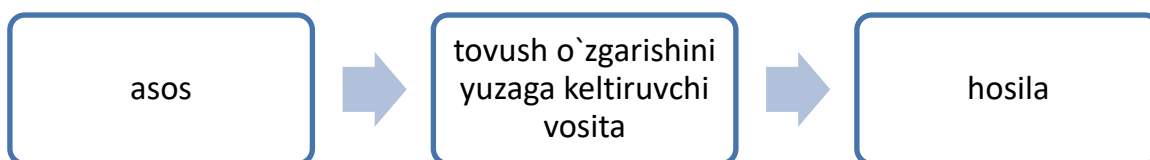
Bugungi kunda tilshunoslikning yangi yo‘nalishlaridan biri kompyuter lingvistikasi, ayniqsa, taraqqiy etmoqda. Bu esa fan sohasining yanada ildamlashuviga, yanada osonlashishiga xizmat qiladi. Kompyuter lingvistikasi sohasida amalga oshirilayotgan qator amaliy ishlar tilshunoslik sohasining ulkan yutug‘idir. Biz tadqiq qilmoqchi bo‘lgan mavzu esa aynan kompyuter lingvistikasiga daxldor hisoblangan lingvistik modellashtirish hisoblanib, lingvistik modellashtirishning tovush o‘zgarishlari asosida yuzaga kelishi va ularning ilmiy manbalari haqida so‘z boradi.

Lingvistik modellashtirish - bu belgilarni bajarayotgan vazifasiga ko‘ra beqaror va barqaror kabi turlarga ajratish hisoblanib, tilshunoslikka E. Sepir, L. Blumfeld, R. Yakobson, Chomskiy, Harris, Hokket kabi olimlarning ilmiy izlanishlari orqali kirib kelgan[3;69]. 20-asrning 60-70-yillarida o‘zining taraqqiyotiga erishgan. Lingvistik modellashtirish tadqiq qilinayotgan belgining soddalashishiga, uning o‘z hosilasi mavjud ekanligiga, model belgisining oson qayd qilinishiga yordam beradi. Lingvistik yo‘nalishda aynan tovush o‘zgarishlarining modellashtirilishini nazarda tutadigan bo‘lsak, ular inson nutqiy faoliyatiga daxldor modellashtirish hisoblanadi va bu modellar nutq o‘zgarishlarining aniq faktlariga tayangan holda yuzaga keltiriladi.

Tovush o'zgarishlarining lingvistik modellarini ma'lum bir guruhlariga ajratib o'rganish ularning soddalashuviga xizmat qiladi, aytish joizki, tovush o'zgarishlarini quyidagi modellar asosida ma'lum bir guruhlariga ajratib o'rganish ma'qulroq:

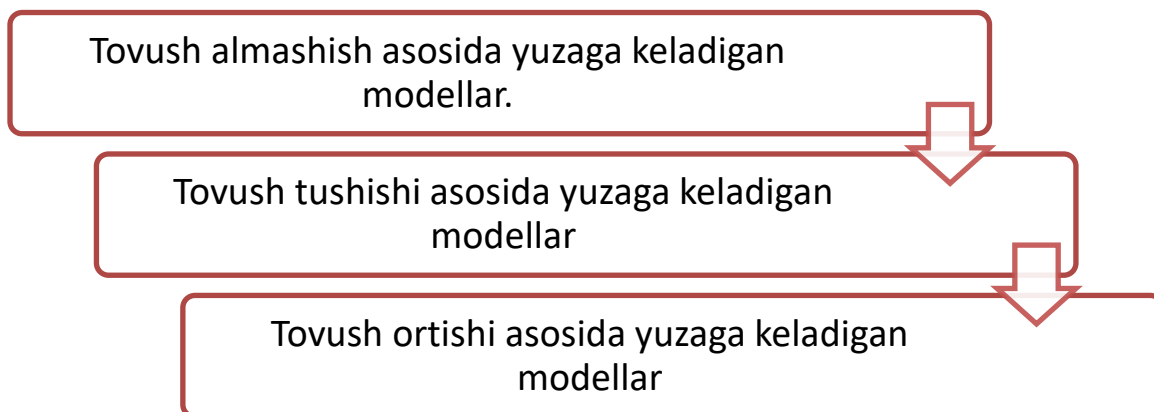
1. Tovush almashish asosida yuzaga keladigan modellar.
2. Tovush tushishi asosida yuzaga keladigan modellar.
3. Tovush ortishi asosida yuzaga keladigan modellar.

Tovush almashish asosida yuzaga keladigan modellar nutq jarayonida ushbu holatga bog'liq barcha hodisalarni qamrab oladi hamda u quyidagi modelga ega bo'lishi mumkin:



Xuddi shunday tovush tushishi va ortishi asosida yuzaga keladigan o'zgarishlar ham shu qolip asosida yuzaga keladi va nutqiy holatning bir bo'lagi hisoblanadi.

#### **Tovush o'zgarishlarining lingvistik modellari(1-chizma).**



Tovush o'zgarishlarining lingvistik modellari o'zining qator ilmiy manbalariga ega hisoblanib, bu hodisa bo'yicha tadqiqot ishini olib borgan tadqiqotchilar ushbu lingvistik modellarga turli nuqtayi nazardan yondashganlar.

Xususan, chet el ilmiy adabiyotida bu borada qator ilmiy tadqiqotlar olib borilgan bo'lib, bunga misol sifatida 1989-yilda Ohala tomonidan yaratilgan ilmiy ishni keltirishimiz mumkin. Ohalaning fikricha, gradiatsiya sinxron o'zgaruvchanlikning diaxronik ta'minlanish asosida yuzaga kelgan tovush o'zgarishlarining lingvistik modelining muhim qismi sanaladi, masalan, model asosida [t, ts, tʃ] kabi /i/ dan oldingi /t/ variantlari [t] dan [tʃ] ga o'zgartirish holatining model tarkibida ishtirok etishi gradiatsiya neogrammatik tovushning muhim jihati hisoblanadi[5;81].

Bundan tashqari, Chakon tomonidan ham 2014-yilda ushbu soha yuzasidan amaliy ish olib borilgan bo'lib, u ingliz tilidagi tovush o'zgarishlarining 18 ta etimologik jihatlarini lingvistik model asosida ajratib olgan, 34 guruh asosida voqelantirgan va uni ushbu jadval asosida tahlil qilgan[9;72]:

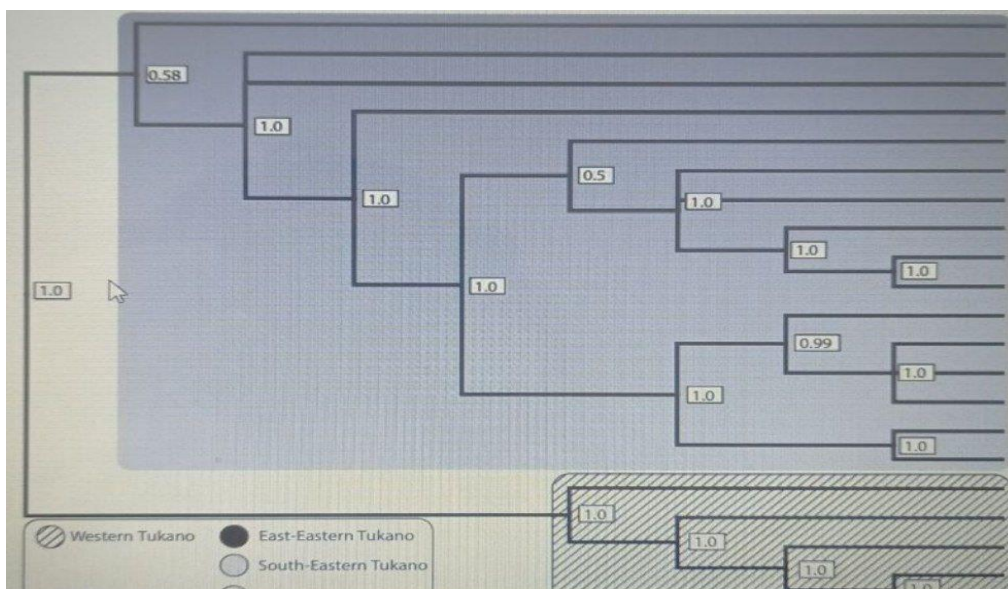
| No. | Sound | Context | No. | Sound | Context | No. | Sound | Context |
|-----|-------|---------|-----|-------|---------|-----|-------|---------|
| 1   | *h    |         | 13  | *p    | #_      | 24  | *ts   | #_      |
| 2   | *j    | #_      | 14  | *p    | V_V     | 25  | *ts   | V_V     |
| 3   | *j    | V_V     | 15  | *p?   | #_      | 26  | *ts?  | #_      |
| 4   | *k    | #_      | 16  | *p?   | [#_V*p  | 27  | *ts?  | #_i     |
| 5   | *k    | V_V     | 17  | *p?   | V_V     | 28  | *tt   | V_V     |
| 6   | *k    | i,e_    | 18  | *p?   | ~V_V    | 29  | *t?   | #_      |
| 7   | *k    | ~V_V    | 19  | *s    | #_      | 30  | *t?   | V_V     |
| 8   | *kk   |         | 20  | *s    | V_V     | 31  | *t?   | ~V_V    |
| 9   | *k?   | #_      | 21  | *t    | #_      | 32  | *tʃ   | #_      |
| 10  | *k?   | V_V     | 22  | *t    | V_V     | 33  | *w    |         |
| 11  | *m    |         | 23  | *t    | ~V_V    | 34  | *?    |         |
| 12  | *n    |         |     |       |         |     |       |         |

Ushbu lingvistik model jadvaliga to'xtaladigan bo'lsak, \* belgisi asosida keltirilgan tovush o'zgarishlari matnda quyidagi tovush o'zgarishlariga sabab bo'lishi mumkin. Masalan \*k? asosida berilgan tovushni tahlil qilsak, u kontekstda ikki unli o`rtasida yuzaga kelsa, tovush o'zgarishi hosil bo'ladi (V\_V): vowel\_vowel. Demak, Chakon tomonidan olib borilgan lingvistik modelning o'ziga xos jadvali ma'lum qoliplar asosida yuzaga keltirilgandir.

Bu borada amaliy tadqiqot olib borgan olimlardan biri Garret fikriga ko‘ra, lingvistik modeli tovush o‘zgarishlarining eng keng tarqalgan turlarini hisobga olishini anglatadi, ya’ni lingvistik modelga tilda yuzaga keladigan barcha tovush o‘zgarishlarini ham kiritish noo‘rin, unga, asosan, keng tarqalgan turlarini kiritish maqsadga muvofiq.

Bundan tashqari, tovush o'zgarishlarini lingvistik modellashtirishning ilmiy manbalarida qayd etilishicha, tovush o'zgarishlarini lingvistik modellashtirishning turli usullari mavjud , xususan:

- a) Jadval ko‘rinishida, ya’ni ushbu usulda olib borilayotgan tovush modellashtirish ko‘rinishi jadval shakliga keltiriladi, bunga misol sifatida Chakon tomonidan ishlangan jadvalni keltirishimiz mumkin;
- b) “Daraxt” tipologiyasi – ushbu tipik lingvistik modellashtirish tovush o‘zgarishlarini daraxt ko‘rinishida shakllantirishni taqozo etadi, ushbu usul, asosan, statistikaga asoslanib, tovush o‘zgarishlari miqdorini hisoblashda qo‘l keladi:



Yuqorida keltirilgan rasmda aks etgan “daraxt” tipologiyasida ingliz tilida so‘zlashuvchi mamlakatlarida nutqiy jarayonda yuzaga keladigan tovush o‘zgarishlarining miqdoriy statistikasi aks ettirilgan.

Xulosa sifatida aytish mumkinki, tovush o‘zgarishlarini lingvistik modellashtirish kompyuter lingvistikasi sohasidagi o‘ziga xos tuzilma hisoblanib, ushbu lingvistik modellardan foydalanish tovush o‘zgarishlarini oson o‘zlashtirishga xizmat qiladi.

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