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LIN 177
Final Project

Japanese verb conjugations

A. The linguistic phenomenon I am modeling is Japanese verb conjugations to long form, te-form, and potential form. Japanese verbs are classified into three different types of verbs: ru (ichidan) verbs, u (godan) verbs, and irregular verbs. I only modeled ru and u verbs because irregular verbs do not have a certain process they follow and to code these would just be declaring what they do.

   Long form is the form that would be used to politer and declarative. To conjugate to long form affirmative and present tense, ru verbs would simply drop the ending ru and add masu. However, u -verbs will drop the final u and imasu. An example of this is taberu (to eat) would become tabemasu (eat), hansasu(to speak) would become hanasimasu(speak). To conjugate potential verbs, u verbs drop the u and eru. Ru verbs however, drop the ru and add rareru. An example of this is taberu to taberareru(can eat) and hanasu to hanaseru(can speak).

   Te form is the more involved conjugation; te form is mainly used for grammatical purposes or as a command. Ru verbs simply again drop the ru and add te. U verbs however deal with five different cases: verbs ending in tu, ru, u will have drop the u and add on tte, verbs ending in mu, nu, bu will drop the u and add on nde, verbs ending in ku will drop the u and add ite, verbs ending in gu will drop the u and add ide, and lastly verbs ending in su will drop the u and add te. I added a chart to clearly see the verb conjugations.

Type	Dictionary Form	Long(present, affirmative) Form	Potential Form	Te Form
Ru	Taberu(たべる)	Tabemasu(たべます)	Taberareru(たべられる)	Tabete(たべて)
U	Kau(かう)	Kaimasu(かいます)	Kaeru(かえる)	Katte(かって)
U	Matu(まつ)	Matimasu(まちます)	Materu(まてる)	Matte(まって)
U	Toru(とる)	Torimasu(とります)	Toreru(とれる)	Totte(とって)
U	Yomu(よむ)	Yomimasu(よみます)	Yomeru(よめる)	Yonde(よんで)
U	Asobu(あそぶ)	Absobimasu(あそびます)	Asoberu(あそべる)	Asonde(あそんで)
U	Sinu(しぬ)	Sinimasu(しにます)	Sineru(しねる)	Sinde(しんで)
U	Kaku(かく)	Kakimasu(かきます)	Kakeru(かける)	Kaite(かいて)
U	Isogu(いそぐ)	Isogimasu(いそぎます)	Isogeru(いそげる)	Isoide(いそいで)
U	Hanasu(はなす)	Hanasimasu(はなします)	Hanaseru(はなせる)	Hanashite(はなして)

B. I choose this particular topic because I am currently taking Japanese and find Japanese verb conjugation to be very interesting in how ru verb and u verb conjugate differently.

C. This relates to the class because it relates back to the morphology part of class when we discussed affixation. This particular linguistic phenomenon is suffixation and also deals with assimilation in some areas.

D. You first will consult: jpnverb.pl

   To get a list of all the Japanese verbs simply type in: japanese(A,B).

   If you want just ru-verbs: japanese(A, [verb, ru,_]).

If you want just u-verbs: japanese(A, [verb, u,_].

If you want just potential verbs: japanese(A, [verb, _, potential].

If you want just long form verbs: japanese(A, [verb, _, long].

If you want just te form verbs: japanese(A, [verb, _, te].

E. I faced many challenges developing my implementation.

First, I want to note that the character し is actually romanized as shi but I have it implemented as si. The character つ is actually romanized as tsu but I have it implemented as tu. The character ち is romanized as chi but I have it as ti. I did this because I was not using the exact phonetic pronunciation and this form still get the idea across of what character it would be in Japanese.

Second, I had many issues with te-form for u verbs. At first ,I had write different code for my project that showed more of my process but in the end I changed how I written my lexicon and completely shortened my code with this. (I provided the old code I wrote in a separate folder). Still however, I faced issues with te-form for u verbs. Te-form for u verbs has 5 different cases however I have mine implemented as 7 case. The first case: tu, u, ru, change to tte. Howeve, it was increasing difficult to use properties to produced t, r, vowel since u is a character that has no consonant sound attached. So I separate this case to be t,r as one case and u as another. Second case: mu, nu, bu changes to nde. This also was difficult to do in one case because it was hard to get m,n,b through properties.pl so I again separated these cases to m,n and b. Third case: ku to ite and fourth case: gu to ide, I ended up combining because the only difference was the voicing on the second character assimilate. Then the fifth case su, I had no issues with is just changed the u to te. Last case is ru verbs which also had no issues since they drop the ru and add te. I also have

multiple te stems in my lexicon for the same reason hat using the properties.pl proved to be difficult to distinguish the phones I actually need.

I also ended up altering properties.pl and phone.pl. I combined both together and shortened them to only contain vowels and consonants that the Japanese language has.

Third, I had this issue where I needed to remove the last character of my word. I ended up doing this with a recursive function I named remove_last(). That recursively used head|tails unitl it reached the last element.

F. My project is principled to linguistic because I show in a generalized principled way how Japanese verbs are conjugated. I show in a clear process how Japanese verb conjugated and the step these undergo in changing to their new forms. Certain forms assimilate in sound while other do not and in my code, I show this. Majority of the linguistically phenomenon that is happening is shown through u-verbs since they take multiple step hence being called godan(5-step) verb.