Learnability of Japanese Case Particle 'wo'
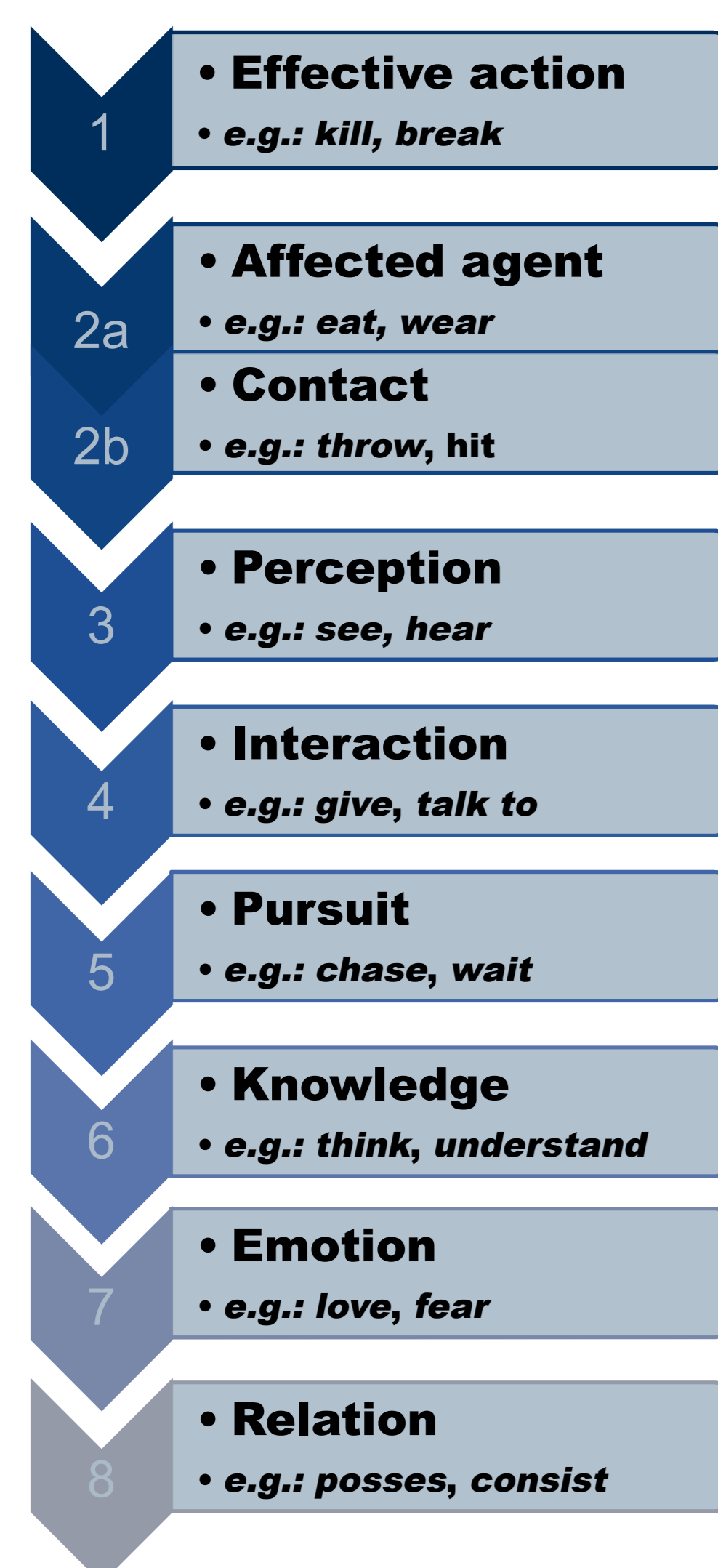
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Introduction

- The study explores universal (language independent) factors that shape inter-language along with the role of the L1 and input. We do so by examining the **question** - how learners of Japanese use case particle '*wo*', which marks the object of transitive verbs, through two surveys - one targeting Hindi L1 speakers (pilot) and a second targeting Persian L1 speakers.

- We adopted a prototype **approach** to learning as proposed by Tsunoda (1991) in order to examine universal factors. Tsunoda argues that transitivity is a matter of degree; with the prototypical transitive verb being the highest in the hierarchy, and the transitivity of non-prototypical verbs decreasing as we move down the scale. He categorized verbs cross-linguistically into eight semantic types on the basis of their degree of transitivity. We based our survey categories (Fig.1) on Tsunoda (1991) and Malchukov (2005).

fig. 1

1	• **Effective action** • *e.g.: kill, break*
2a	• **Affected agent** • *e.g.: eat, wear*
2b	• **Contact** • *e.g.: throw, hit*
3	• **Perception** • *e.g.: see, hear*
4	• **Interaction** • *e.g.: give, talk to*
5	• **Pursuit** • *e.g.: chase, wait*
6	• **Knowledge** • *e.g.: think, understand*
7	• **Emotion** • *e.g.: love, fear*
8	• **Relation** • *e.g.: posses, consist*

- We **predict** a gradation in ease of learnability - learners are more likely to analyze verbs higher in the hierarchy as transitive than those belonging to a lower category. They will therefore be most likely to select '*wo*' for Effective Action predicates, and inversely, least likely to select '*wo*' for Relation predicates.

- **L1 selection**: Why Hindi and Persian?
- The two languages share linguistic features concerning case marking which makes it possible to explore L1 influence.

Experiment 1 (pilot study): Hindi L1 Japanese learners (HJL)

- Method:
- We conducted two **tests** in March 2011. A level determination test called Simple Performance Orientation Test (SPOT) (paper version SPOT A, SPOT B) & a fill-in the blank style grammar test to measure how well learners understood case particles.
- The **grammar test** consisted of 26 test questions divided over seven survey categories (category 2 was not included) and 26 dummies. Two verbs were selected for each category from the old JLPT level four to two vocabulary list. Two factors were taken into consideration - the case marking used in the corresponding Hindi verb, and the vocabulary level.
- example: このリンゴ＿＿四(よっ)つに切(き)ってください。
- The **participants** were undergraduate and graduate students majoring in Japanese language at an Indian University. SPOT result was used to place the 52 participants into the following three proficiency groups.
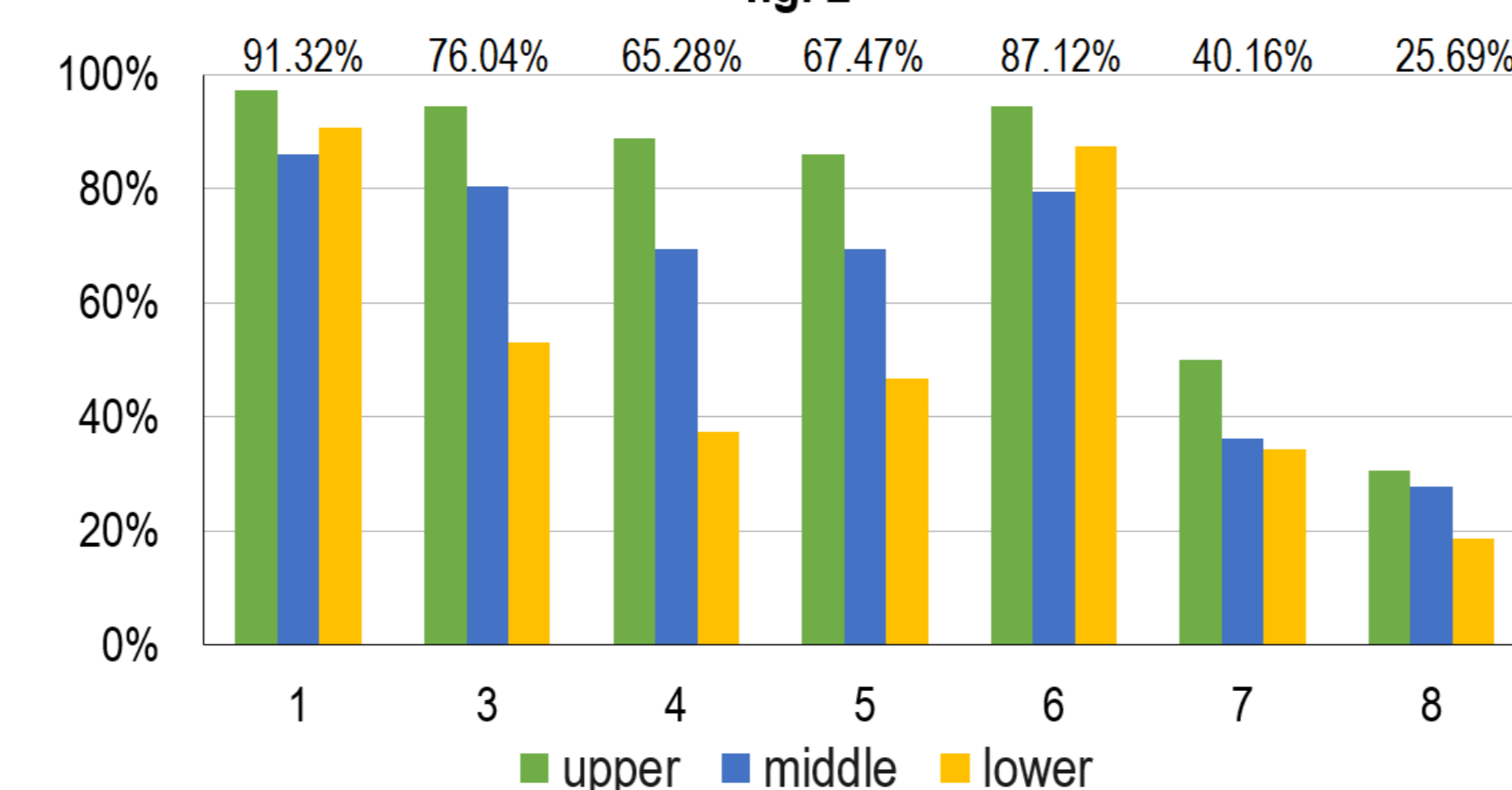
Table 1 Participants (HJL)

Proficiency group	lower (LG)	middle (MG)	upper(UG)
Number of participants	18	18	16
Average score	54.23%	64.71%	76.01%

- The test **procedure** required participants to fill in a face sheet, followed by SPOT. The grammar test was administered after a break.

Results

- Fig.2 represents the average score of each group by category. The **main findings** were:
- 1. Between categories: The average scores increase as we move up the hierarchy with the exception of 6.Knowledge. [Implication: Verb transitivity is reflected in ease of acquisition of '*wo*'.]
- 2. Within categories: The average scores increase as we advance in proficiency levels in the case of most categories. [Implication: acquisition of '*wo*' and overall proficiency have a positive correlation.]
- 3. Choice of incorrect particles: Error patterns in UG narrowed down. They were also less likely to fall back on their L1 than the other two groups, except in the case of the two lowest categories. Errors were more frequent in verbs belonging to high JLPT levels with the exception of the two lowest categories.

fig. 2

91.32% 76.04% 65.28% 67.47% 87.12% 40.16% 25.69%

Legend: ■ upper ■ middle ■ lower (categories 1, 3, 4, 5, 6, 7, 8)

Experiment 2 : Persian L1 Japanese learners (PJL)

- Method:
- We conducted two online **tests** in September 2020, modelled after the pilot: Tsukuba Test-Battery of Japanese (TTBJ)'s SPOT90 and Grammar90 to determine proficiency levels and a revised grammar test.
- The new **grammar test** consisted of 36 test questions evenly divided over nine categories, and 22 dummies. Verbs were selected from a list we created of over 700 transitive verbs found in JLPT N5 to N2 vocabulary textbooks. Both vocabulary level and case markings in the corresponding Persian verb were taken into consideration.
- The **participants** were undergraduate students majoring in Japanese language at the University of Tehran. SPOT90 & Grammar90 results were used to place the 44 participants into the following proficiency groups.
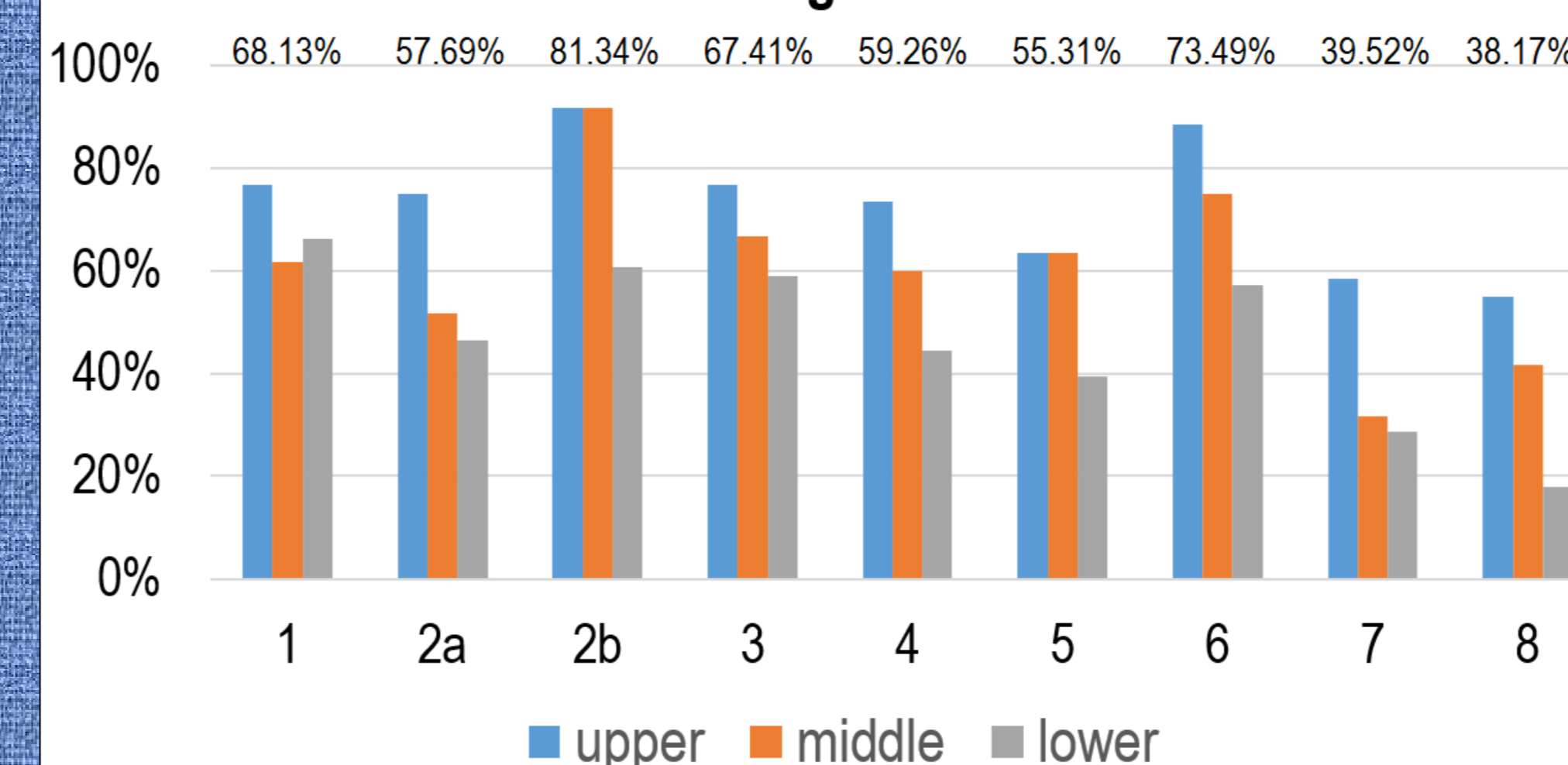
Table 2 Participants (PJL)

Proficiency group	lower (LG)	middle (MG)	upper(UG)
Number of participants	14	15	15
Average score	48.60%	60.48%	77.62%

- **Procedure**: As the tests were held online through google form (except the TTBJ tests which are computerized) we could not control the exact timing of the tests, but the order was the same as the pilot.

Results

- Fig.3 represents the average score of each group by category. The **main findings** were:
- 1. Between categories: The average scores increase as we move up the hierarchy in the case of LG, with the exception of 2a. Affected agent & 6.Knowledge.
- 2. Within categories: With the exception of 1. Effective action, 2b. Contact & 5. Pursuit, test scores improved with increasing proficiency levels.
- 3. Choice of incorrect particles: With the exception of 4. Interaction, error patterns in the UG tended to narrow down. However, the UG was not less likely to select particles that were influenced by their L1 than the other groups.

fig. 3

68.13% 57.69% 81.34% 67.41% 59.26% 55.31% 73.49% 39.52% 38.17%

Legend: ■ upper ■ middle ■ lower (categories 1, 2a, 2b, 3, 4, 5, 6, 7, 8)

Discussion and conclusions

Discussions:

- The actual test items and the number of items per category were different, but we could observe the following trends from the two studies:

- **Similarities** between the results of HJL & PJL:
1. The average scores of categories higher in the transitivity scale were relatively higher than those at the lower end of the scale. This suggests that learners may not be sensitive to individual categories as such, but do intuitively make a distinction between high and low transitivity at the two ends.
2. The exception was category 6.Knowledge which could not be explained by either universal or language specific factors and requires further exploration.
3. There seems to be a correlation between language proficiency and acquisition of '*wo*', though we may also have cases of fossilization and a U shaped learning curve.
4. Error patterns tend to narrow down and homogenize as proficiency level increased.

- **Differences** in the results of HJL & PJL :
1. PJL's LG followed the transitivity scale more closely whereas in HJL it was the MG and UG.
2. There is a sharper decline in average scores in the lowest two categories in the case of HJL. The decline is more gradual in PJL.
3. It appears that advanced HJL rely less on their L1 knowledge than PJL, except in the case of the lowest categories. This may be due to the fact that even though the basic grammar structures are often taught in contrast with the L1, the medium of instruction for HJL was English..

Conclusions

- Preliminary analysis suggests that the grammar test results bear out the predication in the case of verbs belonging to the extreme ends of the transitivity scale. However, the predication did not hold true for intermediate categories.

References

Malchukov, Andrej L. (2005). Case pattern splits, verb types and construction competition. In MengistuAmberber and Helen de Hoop (Eds.) Competition and Variation in Natural Languages: The Case for Case (pp.73-117). London and New York: Elsevier.

Tsunoda, T. (1991). Sekai no gengo to Nihongo: gengoruikeiron kara mita nihongo [The Languages of the World and Japanese: A Linguistic Typological Approach to Japanese]. Tokyo: Kuroshio