**Supplementary items**

**S1. Interlocutor images**

|  |  |  |
| --- | --- | --- |
| Balanced interlocutor | Unbalanced interlocutor | Neutral interlocutor |
|  |  |  |
|  |  |  |

**S2. Characteristics of the Balanced and Unbalanced interlocutors**

|  |  |  |
| --- | --- | --- |
|  | Balanced interlocutor | Unbalanced interlocutor |
|  | Female | Male | Female | Male |
| Age | 26 | 27 | 26 | 26 |
| Age of acquisition of L1 | 1.5 | 1.5 | 1 | 1.5 |
| Age of acquisition of L2 | 4 | 5 | 9 | 9 |
| Self-rated proficiency in L1 | 8.33 | 8.16 | 8.83 | 9 |
| Self-rated proficiency in L2 | 9.33 | 9 | 7.66 | 7.33 |
| Vocabulary score (L2; WordORnot) | 71 | 69 | 45 | 41 |
| Semantic fluency score (L1) | 16 | 15.50 | 16.5 | 16.75 |
| Semantic fluency score (L2) | 17.75 | 16.75 | 13.25 | 12 |

**S3. Sentences/questions used in the interaction phase**

**1. Balanced Female Interaction:**

1. L1 My name is X\*. What is your name?

2. L2 Good to see you. How have you been?

3. L2 How do you find Hyderabad?

4. L1 Do you roam around the city and visit new places during free time?

5. L1 I like the greenery and serene atmosphere of this campus. Do you feel the same?

6. L2 By the way, which course are you pursuing?

7. L1 How are your studies? Are the classes interesting?

8. L2 What are your favourite pastimes?

9. L1 Does the University have Sports day/Arts day?

10. L2 It’s been a pleasure to meet you. Have a great day.

**2. Balanced Male Interaction:**

1. L1 My name is X\*. What is your name?

2. L2 Pleased to meet you. Where are you from?

3. L2 Where do you stay? In hostel or outside the campus?

4. L1 How long have you been here in Hyderabad?

5. L1 How do you go out usually?

6. L2 How do you move around the campus?

7. L2 What are you studying here? Do you find it interesting?

8. L1 What do you do at leisure time?

9. L1 I like the food around this place? Do you?

10. L2 It was nice meeting you. Have a nice day.

**3. Unbalanced Female Interaction:**

1. L1 My name is X\*. What is your name?

2. L1 How long have you been studying here?

3. L1 Do you have so many friends in the campus?

4. L1 Do you have classes during weekends?

5. L2 Are you a hosteler or a day scholar?

6. L1 How does the mess system in the campus works?

7. L1 Do the students here actively engage in campus politics?

8. L2 Do you take part in any sports or games?

9. L1 Do you have a gym in the campus? If so, do female students also avail that facility?

10. L1 I had a good time speaking to you. Thank you.

**4. Unbalanced Male Interaction:**

1. L1 My name is X\*. What is your name?

2. L1 Do you like this campus?

3. L2 How long have you been studying here?

4. L1 How do you spend your weekends?

5. L2 How is the room and mess food?

6. L1 From where all can you buy food in the campus?

7. L1 Is it usually hot here?

8. L1 Have you experienced water scarcity in summer?

9. L1 Can we cook food here? If so, where is the grocery shop?

10. L1 It was my pleasure meeting you.

**S4. Sentences/questions used in the re-familiarisation phase**

**1. Balanced Female Refamiliarization:**

1. L1 Is the experiment interesting?

2. L2 What do you feel about what you did so far?

3. L2 Press “space bar” to start

**2. Balanced Male Refamiliarization:**

1. L2 How do you find the experiment?

2. L1 What do you feel about what you did so far? Easy or difficult?

3. L2 Press “space bar” to continue

**3. Unbalanced Female Refamiliarization:**

1. L1 Getting bored?

2. L1 Please continue for some more time. This is getting done in a while

3. L1 The experiment will resume again

**4. Unbalanced Male Refamiliarization:**

1. L1 Are you feeling sleepy?

2. L1 Please be patient for some more time.

3. L1 The experiment will continue now

**S5. Sequential Congruency Analysis**

**Conflict adaptation and SCE**

For looking at conflict adaptation, trials were classifies based on current trial and previous trial giving rise to four kinds of trials (congruent trial preceded by a congruent trial (cC), congruent trial preceded by an incongruent trial (iC), incongruent trial preceded by a congruent trial (cI) and finally, incongruent trial preceded by an incongruent trial (iI)). We calculated two types of flanker effects from this, the c-flanker effect which is the difference between incongruent and congruent trials when the preceding trial was congruent (cI-cC) and i-flanker effect, the difference between congruent and incongruent trial when the preceding trial was incongruent (iI-iC). SCE was considered as the difference between these two flanker effects (SCE = c-flanker effect – i-flanker effect).

**Experiment 1: Control task**

Repeated measures ANOVA was carried out on the RT data with within subject factors current trial (congruent, incongruent) and previous trial (congruent, incongruent) congruency and group (high-L2 and low-L2 proficient) as between-subject factor. The RT analysis indicated a significant current trial congruency effect (same as trial-type effect), *F*(1,58) = 5.54, *p* = .02, η2 = .08; responses to congruent trials (*M* = 514.55 ms, *SE* = 8.11) were significantly faster than response to incongruent trials (*M* = 519.49 ms, *SE* = 8.63).The main effect of previous trial congruency also turned significant, *F*(1,58 ) = 354.39, *p* < .001, η2 = .85, indicating that RTs were slower following incongruent trials (*M* = 542.31 ms, *SE* = 7.95) than following congruent trials (*M* = 491.73 ms, *SE* = 8.86). Importantly, the interaction between current trial and previous trial congruency was also significant, *F*(1,58) = 7.83, *p* = .007. η2 = .11. This interaction shows that flanker effect was larger (*p* = .06) following congruent (c-flanker effect = 54.67 ms) compared to incongruent trials (i-flanker effect = 46.49 ms), indicating the presence of SCE. However, the interaction between current trial congruency, previous trial congruency and group was not significant, *F*(1,58 ) = 0.54, *p* = .009, η2 = .46, which shows that SCE was similar between the two groups. The main effect of group was significant, *F*(1,58) = 5.68, *p* = .02, η2 = .08; the high-L2 proficient bilinguals (*M* = 497.20 ms, *SE* = 11.76) were faster than low-L2 proficient (*M* = 536.85 ms, *SE* = 11.76) bilinguals. Studies have shown that long response-stimulus interval can lead to lack of/diminishing SCE. In the current experiment, the RSI was around 3000 ms.

**Experiment 1: Interlocutor condition**

Repeated measures ANOVA was carried out on the RT data with within subject factors interlocutor (balanced, unbalanced and neutral) current trial (congruent, incongruent) and previous trial (congruent, incongruent) congruency and group (high-L2 and low-L2 proficient) as between-subject factor. A main effect of interlocutor was observed, *F*(2,116) = 5.96, *p* = .003, η2 = .09 with participants responding faster in the presence of balanced interlocutor (*M* = 612.16 ms, *SE* = 10.31), followed by unbalanced (*M* = 614.39 ms, *SE* 10.65) and neutral interlocutor (*M* = 628.81 ms, *SE* = 12.29). The main effect of current trial congruency effect was absent, *F*(1,58) = 1.91, *p* = .17, η2 = .03; but main effect of previous trial congruency was significant, *F*(1,58 ) = 274.71, *p* < .001, η2 = .82, indicating that RTs were slower following incongruent trials (*M* = 644.89 ms, *SE* = 11.36) than following congruent trials (*M* = 592.02 ms, *SE* = 10.25). Though the interaction between current trial and previous trial congruency was significant, *F*(1,58) = 7.83, *p* = .007, η2 = .11; neither the interaction between interlocutor, current trial congruency, previous trial congruency [*F*(2,116) = 1.30, *p* = .27, η2 = .02], nor the interaction between interlocutor, current trial congruency, previous trial congruency and group was significant, *F*(2,116) = 0.36, *p* = .69, η2 = .006. This interaction between current and previous trial congruency indicates that flanker effect was larger (*p* = .009) following congruent (c-flanker effect = 57.88 ms) compared to incongruent trials (i-flanker effect = 47.84 ms), indicating the presence of SCE. All other interactions were not significant. The main effect of group was significant, *F*(1,58) = 5.35, *p* = .02, η2 = .08; the high-L2 proficient bilinguals (*M* = 497.20, *SE* = 11.76) were faster than low-L2 proficient (*M* = 536.85, *SE* = 11.76) bilinguals.

**Feature integration and SCE**

In order to see if feature integration contributes to SCE, one has to classify the trials based on alternations and repetitions. In the current study, there are three kinds of trials – full repetition (>>>>> followed by >>>>> or <<<<< followed by <<<<<), partial repetition (for example, >><>> followed by <<<<< or >>>>> followed by <<><<) and full alternations (<<<<< followed by >>>>> or >>>>> followed by <<<<<). Ideally, studies exploring feature integration use tasks with more than two response options. Feature integration is unlikely to contribute to the SCE if the analysis using only full alternations (i.e., when there are no feature repetitions) stills yields a SCE component. In out experiment, it is hard to retroactively tell whether the SCE is present because of feature integration or conflict adaptation. In this design, it is likely that both of these processes are involved and they are very closely tied together. One possible way is to remove the complete repetitions from the data and look at the SCE; however, this does not take care of the issue completely since partial repetitions still remain and cannot be removed – or we would have to remove all the iC and cI trials because those are always partial repetitions (for example, >>>>> followed by <<><< or >><>>).

**S6. Speed-Accuracy Tradeoff**

Usually in manual reaction time experiments, participants are instructed to respond as quickly and accurately as possible. However, participants tend to make more errors when they respond rapidly. The speed-accuracy tradeoff is concerned with this issue. In their paper, Salthouse and Hedden (2002) discuss various strategies for dealing with the problem. One method is to ignore the incorrect trials completely and just analyse the correct trials which is not advised. Another method is to analyse both RT and accuracy data separately and see if the pattern of results are similar in nature. In the current study, we observed that there was a significant three-way interaction between interlocutor, trial-type and group on the RT data. Though this interaction was significant on the error analysis, further pairwise comparisons showed no significant interactions. Hence, we explored the possibility of a speed-accuracy tradeoff. In the RT analysis, the difference between high-L2 proficient and low-L2 proficient bilinguals was smaller in the presence of balanced interlocutor compared to neutral and unbalanced interlocutors. However, in the error analysis, the difference between the groups was smaller in the presence of neutral interlocutors compared to balanced and unbalanced interlocutors respectively. Though the main effect of interlocutor was absent on the error analysis, we observed that participants made more errors in the presence of unbalanced interlocutor compared to balanced and neutral interlocutors. The difference between high-L2 and low-L2 proficient bilinguals were more in the presence of unbalanced interlocutors followed by neutral and balanced interlocutors indicating a similar pattern with the RT analysis. Since the pattern was not straightforward, we decided to check the correlation between the RT and accuracy data.

Correlation between RT and accuracy data: We considered the average RT (M = 611.29 ms, SD = 83.31) and accuracy (M = 97.49%, SD = 4.19) across all the conditions and observed a significant negative correlation (*r* = -.453, *p* < .001) between the two. To see if interlocutor condition had any role in this, we considered the same and performed another correlation. The result is as follows: In the presence of three interlocutors – balanced, unbalanced and neutral, there was a significant negative correlation between RT and accuracy rate; the correlation coefficients were -.329, -.283 and -.511 respectively.