Does L2 (dis)fluency improve with proficiency? An exploration on Italian learners of German.

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Background. In the CEFR [1], fluency is considered an indicator of a learner's naturalness, spontaneity, and ease of oral expression in the second language (L2). Disfluencies are considered fluency-disrupting and used to distinguish lower from higher proficiency levels based on type and frequency. Research reports contradictory results. [2] found that the distributions of different types of hesitations across proficiency levels is not uniform, while [3] found no difference across proficiency levels in disfluencies' type, but in their frequency and placement, and [4,5] found that advanced learners produce more filled pauses than beginners. However, most studies focused on isolated aspects of disfluencies and did not consider their functions, which can even be fluency-enhancing while managing discourse [6], i.e., speakers can alter something already uttered (backward-looking function) or suspend the message delivery through pauses, fillers, prolongations (forward-looking function) [7] which provide information on discourse organisation. Hence, we apply a comprehensive analysis of disfluency phenomena and their functions in learners' L1 (Italian) and L2 (German) and explore differences across proficiency levels. In line with the CEFR, we take L1 fluency measures as a baseline for learners' L2 production and assume that higher L2 proficiency implies more automated cognitive processes, leading to a degree of fluency closer to the L1. **Method.** We analysed dialogic speech from an existing corpus [8] produced by eight Italian students of L2 German, four beginners (BEG) and four advanced learners (ADV) while doing a Map Task [9] in their L1 and L2 (ca. 5-7 minutes per dialogue). We performed a multilevel, contextual annotation of disfluency phenomena [10]: On the first level, disfluencies were categorized as Insertion, Deletion, Substitution, Repetition, Silent Pause, Prolongation, Filled Pause, Lexicalized Filled Pause; on the second level, each item was assigned the macro-function of Backward-Looking or Forward-Looking; on the third level, a more specific function was associated to each Forward Looking disfluency (Word Searching, Structuring, Focusing, Interactional or Hesitative). We compared the following parameters across proficiency levels: the frequency of disfluent items, their main macro- and specific function; the duration of silent pauses, filled pauses and prolongations. The statistical significance of the results is tested by fitting (Generalised) Linear Mixed Models with speakers as random effect. **Results.** Disfluency phenomena are significantly more in L2 as in L1 independently of learners' proficiency (ADV: L1=217; L2=433; BEG: L1=233; L2=428). Figure 1 shows disfluency types and macro-functions (colour-coded). The L1 shows more variety, displaying lexicalised filled pauses, which are absent in L2 ($p=0.004$), and more substitutions and less repetitions than in L2. Beginners show more silent pauses ($p=0,01$) than advanced learners and less prolongations ($P=0,007$), whereas advanced learners have similar number of silent pauses and prolongations as in their L1, which is in line with our expectations. Forward-looking disfluencies occur more frequently than backward-looking for all language groups ($p=0.08$), but learners show differences with respect to their L1 regarding the specific function of forward-looking phenomena (Fig. 2), i.e. increased word searching ($p=0.0007$) and reduced focusing ($p<0.0001$) and structuring ($p<0.0001$) disfluencies. This tendency is slightly reinforced in beginners. Figure 3 shows durations of prolongations, filled pauses and silent pauses. These are significantly longer in L2 than in L1. Moreover, beginners show longer silent pauses (m= 1018 ms, SD=901) than advanced learners (m= 435 ms, SD=318). **Conclusion.** From this exploratory data set, it emerged that proficiency levels are overall similar, with only slight differences in disfluency frequencies and distributions, except for silent pauses, which are more and longer in beginners. Both learner groups lack the use of lexicalised filled pauses found in their L1, probably because they are not familiar with the target-language-specific lexical token. Their (still) limited L2 knowledge, is also evident in more word searching and less focusing and structuring tokens (communicative and discursive functions, which are more advanced skills). These results show that, in classroom learning, learners do not reach the same level of fluency they have in their L1 even at an advanced level, probably due to the lack of exposure to target interactional features. Extending the sample of participants will help to confirm or remodulate these findings.

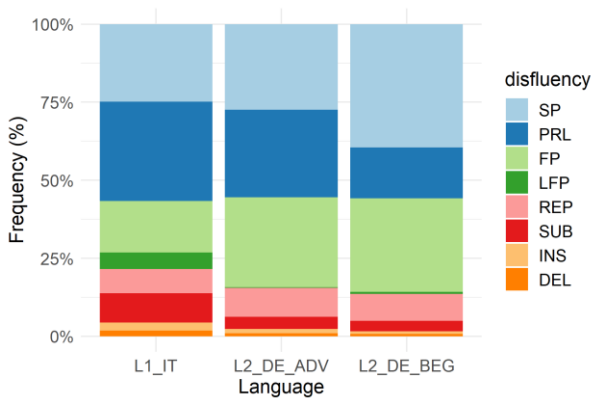

Figure 1 - Frequency of disfluency phenomena per language and proficiency. Macro-functions are colour-coded: the greens and the blues display forward-looking disfluencies, while the reds and oranges show backward-looking disfluencies

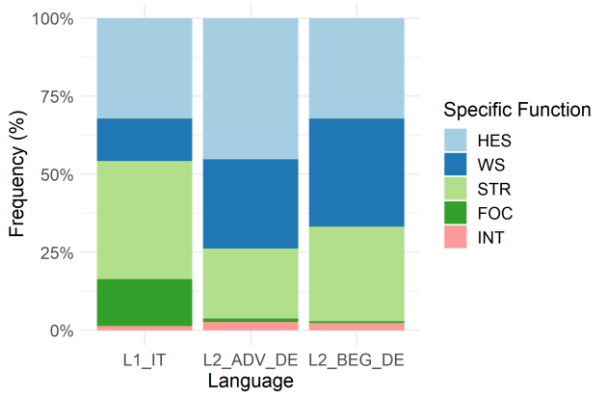

Figure 2 - Frequency of specific functions of forward-looking disfluencies per language and proficiency

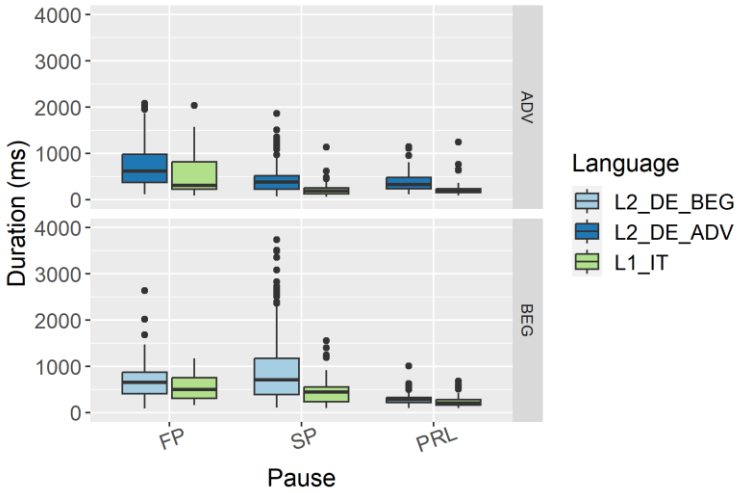

Figure 3 - Duration of Filled Pauses, Silent Pauses and Prolongations per language and proficiency

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