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Multilingual Competence Influences Answering Strategies in Italian–German Speakers

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The present study aims at analyzing the role of nativeness, the amount of input in L1 acquisition and the multilingual competence in the performance of Italian–German bilingual speakers. We compare novel data from the performance of adult L2 learners (L1: Italian; late L2: German) and that of heritage speakers (heritage language: Italian; majority language: German) to previous data from monolingual speakers of Italian. The comparison deals with the produced word order at the syntax-discourse interface in sentences containing New Information Subjects in answers to questions that prompt the identification of the clausal subject. Overall, adult L2 speakers and heritage speakers perform alike but crucially differently from Italian monolinguals. These data reveal that multilingual proficiency determines an increased variety in the adopted answering strategies; in particular, the German-like strategy is active in Italian. Nativeness alone is thus no guarantee for a homogeneous performance across groups, nor do we find similar patterns of performance in speakers who grew up as monolinguals. Data also show heritage speakers' sensitivity to verb classes, with answering strategies varying in accordance with the verb argument structure. Participants' productions reveal an interesting relation in sentences with transitive verbs between subject position (pre-/postverbal) and object form (lexical DP/clitic pronoun).

Keywords: heritage language, L1 attrition, new information subjects, interfaces, optionality

INTRODUCTION

This study addresses the issues of the role of nativeness, the amount of input in L1 acquisition and the multilingual competence in the performance of Italian–German bilingual speakers. We compare novel data from the performance of adult L2 speakers possibly undergoing attrition (AL2S; L1: Italian; late L2: German) and that of heritage speakers (HSs; heritage language: Italian; majority language: German) to previous data from monolingual speakers of Italian (MonoL1; Belletti and Leonini, 2004).

For the purpose of the present study, we rely on a concept of nativeness that corresponds to the exposure to the target language since birth in the familial environment, independently of the proficiency level ultimately attained later. As for the amount of input in L1 acquisition, we refer to the different linguistic settings in which the L1 is acquired. In a multilingual setting children

receive an input in the heritage language that is not as rich and differentiated as that of monolingual children. The third factor we address, i.e., multilingualism, takes into consideration the linguistic competence of our participants, who are advanced speakers of both Italian and German at the time of testing, independently of age of acquisition (bilingual child acquisition or adult L2 acquisition of German).

The three factors (although termed slightly differently) have been previously singled out by Montrul (2015, p. 17) as important variables in defining speakers' linguistic dominance. Along the lines of Kupisch and Van de Weijer (2015, a.o.), we can refer to dominance as the strongest language in the speakers' competence. According to Montrul's model, proficiency is only one aspect of dominance, which usually correlates with other biographical and input variables (such as age of acquisition, place of birth, amount of input, type of context, etc.). Here, we will address the relationship between these variables and the attained proficiency. However, given that proficiency can vary depending on the linguistic level of analysis, we specify at the outset that we will focus on one specific phenomenon, rather than addressing a general linguistic assessment. The idea is to gain a better understanding of the role of single variables through the study of their reflex on a single linguistic phenomenon. This should ultimately contribute to highlight how dominance may be (re)set throughout the lifespan.

Our analysis addresses the produced VS and SV word orders determined at the syntax-discourse interface in sentences that are the reflex of a specific discourse content: the realization of New Information Subjects (NISs) in answers to questions that prompt the identification of the clausal subject.

We present the phenomenon referred to as *answering strategies* in Section "Answering Strategies." In Section "Subjects at the Interfaces: Previous Results From Multilingual Speakers" we discuss previous results from the performance of multilingual speakers in phenomena related to the syntax and interpretation of subjects at the interface with discourse in question-answer contexts. On this basis we will formulate our research questions in Section "Research Questions." In Section "Materials and Methods" we present the methods we used to collect the results presented in Section "Results." Section "Discussion" is dedicated to the discussion of the results. Section "Conclusion" gives the conclusions.

ANSWERING STRATEGIES

In the present study, we consider a linguistic phenomenon that manifests itself at the interface between syntax and discourse, and we look at how a specific interpretive content is conveyed in the syntactic structure. Specifically, we are interested in NISs, which result from question-answer pairs aiming at identifying the clausal subject. The specific linguistic phenomenon is triggered by questions of the following kind:

- (1) *Chi ha vinto il premio?*
Who AUX win.PP the prize
'Who won the prize?'

As exemplified, the question bears on the subject, which must be identified in the answer as the Focus of New Information, while the predicate and the object are presupposed in the given conversational context. As discussed in Belletti (2007) and in Belletti and Leonini (2004), languages differ in the way they answer questions that trigger NISs, i.e., they resort to different syntactic structures and different word orders to convey the intended meaning. Following the references quoted, we will refer to those selected structures as *answering strategies*.

Three main answering strategies have been identified in the languages investigated: verb-subject (VS) order with a postverbal subject; subject clefts, and subject-verb (SV) order with the preverbal subject bearing a characteristic prosodic prominence. The strategy preferably adopted in Italian exploits the VS order with a postverbal subject as in (2)A (Belletti, 2001, 2004, a.o.):

- (2) Q: *Chi ha vinto il premio?* A: *L'ha vinto Maria*
Who AUX win.PP the prize? Obj.CL AUX win.PP M.
Q: 'Who won the prize?' A: 'Maria won it'

In the same pragmatic context, French native speakers tend to produce subject clefts or reduced clefts (Belletti, 2007):

- (3) Q: *Qui a gagné le prix?* A: *C'est Marie (qui l'a gagné)*
Who AUX win.PP the prize? CL be M. who obj.CL AUX win.PP
Q: 'Who won the prize?' A: 'It is Marie (who won it)'

In contrast, other languages like English and German tend to focalize the NIS in the preverbal position associating it to a marked prosodic prominence, as exemplified in the German example in (4):

- (4) Q: *Wer hat den Preis gewonnen?* A: *MaRIE hat ihn gewonnen*
Who AUX the prize win.PP / M. AUX OBJ.pronoun win.PP
Q: 'Who won the prize?' A: 'Maria won it'

The three examples show how the same discourse function, i.e., the realization of NISs in answers to questions that aim at identifying the clausal subject, is carried out in different languages through strategies that differ in their syntactic structure and in their prosodic pattern. We assume with Belletti (2001, 2004, and subsequent work) the cartographic analysis according to which the low vP-peripheral area of the clause (TP) contains a discourse related Focus position dedicated to the New Information Focus interpretation and Topic positions along similar lines as the clause external Left periphery (Rizzi, 1997; Benincà and Poletto, 2004; Cruschina, 2009, 2012, and much subsequent work). As for the Italian example in (2)A, the structure is assumed to be obtained through the activation of the Focus position in the clause-internal vP-periphery, dedicated to host new information constituents, hence the NISs as well. According to this analysis, the low vP-peripheral position hosting the NIS is lower than the position targeted by the verb in its (head) movement within the TP. Thus, the VS order is obtained with V moving over the low NIS along the lines schematically illustrated in (5):

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(5) [_{CP}... [_{TP} *pro* ... T [_{TOPP} Top [_{FOCP} FOC [_{TOPP} Top [_{VP} DP V...]]]]]]

237 In a null subject language like Italian, a silent referential
238 *pro* is present in the high preverbal subject position, satisfying
239 the relevant formal requirements (i.e., EPP, Chomsky, 1995;
240 Cardinaletti, 2004; Rizzi and Shlonsky, 2007).

241 The structure of answering strategies with a postverbal subject
242 ultimately relies on a number of syntactic mechanisms: the
243 activation of the clause-internal low FocusP position for hosting
244 the NIS, movement of V to T¹ and presence of *pro* in the
245 preverbal subject position. It follows that the strategy cannot
246 be exploited if the language is not a null subject language².
247 However, if some other way is available to satisfy the non-null
248 subject property of the language, i.e., if the preverbal high subject
249 position may be filled otherwise, for instance by an expletive
250 subject pronoun, then the NIS can be left in the specifier of the
251 low Focus position also in a non-null subject language, without
252 violating any grammatical constraint. French cleft sentences of
253 the type presented in (3) above illustrate one such case of how
254 a non-null subject language can exploit the low vP-peripheral
255 new information Focus position to express a NIS, essentially
256 implementing a postverbal subject in disguise (Belletti, 2005,
257 2009, 2015; see also Hamann and Tuller, 2014, for an overview
258 on French cleft and presentational constructions)³. In a nutshell
259 (the relevant steps of) the derivation runs as follows. Let us
260 assume that the core structure of clefts is built by a matrix
261 clause containing the copula with its vP-peripheral discourse
262 related projections including the New Information Focus one.
263 The copula in turn takes as its complement a small clause
264 (reduced) CP. The subject leaves its original position within the
265 small clause CP and moves to the specifier of the low FocusP
266 position in the vP-periphery of the copula in the matrix clause.
267 Further movement of the copula to its functional T position
268 results in the familiar VS word order. Finally, the high preverbal
269 subject position is filled by the quasi-expletive pronoun *ce*. The
270 basic features of the French subject-cleft answers are illustrated
271 in (6):

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(6) [_{TP} *Ce est*_i [_{FOCP} *Marie*_j [_{VP} <__i> [_{SM} [_{PREDP} [_{FinP} *qui*
[<__j> *a gagné le prix*]]]]]]

Thus, Italian and French answering strategies to questions
that trigger NISs, i.e., VS with a postverbal subject and subject

¹Or V- to the relevant non-finite past participial morphology as in examples like (2) containing a periphrastic Aux + Pst Prt tense. The head position targeted by the past participle is still higher than the discourse related vP-periphery.

²The availability of so called 'subject inversion' yielding the VS order and the null subject status of the language is indeed a core correlation in the classical literature on the null subject parameter (Rizzi, 1982; Jaeggli and Safir, 2012). The null subject property of the language is a necessary condition to allow for a VS order such as the one found in Italian type answering strategy. Notice, however, that nothing in principle rules out the grammatical possibility for a null subject language to also allow or even prefer a SV-type answering strategy in similar contexts. Bulgarian may precisely be a case in point according to the recent discussion in Genevska-Hanke (2017).

³As discussed in the references quoted, many other diverse languages adopt the cleft strategy, among which, e.g., Norwegian, Malayalam, Japanese, Brazilian Portuguese.

286 clefts, both require the activation of the very same New
287 Information Focus position in the vP-periphery. Cross-linguistic
288 data ultimately offer robust evidence for the presence of such
289 a position and its activation under the described discourse
290 pragmatic conditions.

291 As mentioned above, at least one further strategy is attested
292 cross-linguistically and that does not imply the activation of the
293 low vP-peripheral Focus position, namely the focalization of the
294 subject in preverbal position through prosodic prominence. The
295 strategy is attested in Germanic languages, such as, e.g., English
296 and German, but also in Romance languages such as Brazilian
297 Portuguese (Dal Pozzo and Guesser, 2010) and, as recently
298 discussed, in South American varieties of Spanish (Gabriel, 2010;
299 Hoot, 2012; Leal et al., 2017), as well as in Bulgarian (Genevska-
300 Hanke, 2017; see footnote 2). The strategy consists in having the
301 subject in preverbal position, yielding the SV linear order, and in
302 attributing a characteristic prosodic prominence to the preverbal
303 NIS.

304 In conclusion, given this brief summary, it clearly emerges
305 that the shaping of an answering strategy is an articulated task,
306 crucially involving both syntactic computations and their relation
307 with the prosodic and interpretive interfaces⁴.
308

309 SUBJECTS AT THE INTERFACES: 310 PREVIOUS RESULTS FROM 311 MULTILINGUAL SPEAKERS 312 313

314 Previous studies reported that multilingual speakers show
315 optionality and non-target-like outputs for phenomena at the
316 interface between syntax and pragmatics, such as, e.g., Topic
317 shifts and NISs.

318 Sorace (2005, 2011) proposed the so-called Interface
319 Hypothesis to provide a possible explanation for such results:
320 phenomena that imply the integration of information from
321 different cognitive systems may be more prone to instability in
322 multilingual speakers ['unstable domains' in Sorace's (2011, p. 3)
323 terms]. For instance, whereas Italian monolingual speakers agree
324 in interpreting overt subject pronouns of subordinate clauses
325 as Topic shift with respect to the main clause, thus selecting
326 a referent different from the subject in the preceding matrix
327 clause, English-Italian bilingual children (Sorace et al., 2009),
328 attrited L1 speakers (Tsimpli et al., 2004), and advanced L2
329 learners of Italian (Belletti et al., 2007) show higher acceptance of
330 coreference of the overt subject pronoun with the subject of the
331 previous sentence, thus disregarding Topic shift⁵. Furthermore,
332 the different types of bilingual/L2 speakers investigated may have
333 access to a different possible grammatical analysis of the overt
334 subject pronoun as a weak pronoun (in the sense of Cardinaletti
335 and Starke, 1999; Cardinaletti, 2004), as the weak overt pronouns
336 of their other language (e.g., she/he) are the equivalent of the
337

⁴See Belletti (2007) for the conclusion that the different answering strategies are in place from very early ages, based on a search on CHILDES (MacWhinney, 2000).

⁵Rinke and Flores (2018) report further cross-linguistic data on this issue: the authors claim that in European Portuguese the acquisition of correct interpretation of subjects takes longer for overt pronouns than for null pronouns both in monolingual and in (German-Portuguese) bilingual children.

343 Italian non-overt *pro*. Since the topic-continuity interpretation
 344 is available in their other language in the presence of an overt
 345 weak subject pronoun, bilingual/L2 speakers may overextend
 346 this interpretation also to overt Italian pronouns; however, in the
 347 same context monolinguals tend to prefer the weakest subject,
 348 i.e., the null variant, while overt subject pronouns tend to be
 349 interpreted as Topic-shift (Belletti et al., 2007, p. 672).

350 Given that answering strategies concern the production of
 351 subjects which express new information Focus at the discourse
 352 level, they also qualify as a potentially unstable domain in
 353 the linguistic performance of multilingual speakers. Belletti and
 354 Leonini (2004; see also Leonini and Belletti, 2004) tested which
 355 answering strategies adult learners of Italian produce when
 356 prompted to realize NISs. Their experimental group was not
 357 homogenous from the point of view of the participants' L1s and
 358 this clearly had a reflex on their different outputs, thus offering a
 359 straightforward interpretation of the results. Sixteen participants
 360 were German native speakers, who produced the target-like VS
 361 structure only in the 27% of the experimental items; while in
 362 the 68% of their answers they produced SV structures, with the
 363 focalized subject in the preverbal position. Three L2 learners with
 364 L1 French frequently produced answers in Italian with French-
 365 like clefts (69%) in order to express NISs⁶, in accordance to
 366 what has been described in Section "Answering Strategies" as
 367 the prototypical answering strategy in French. Thus, L2 speakers
 368 recognized the appropriate discourse context for the realization
 369 of NISs and reacted by activating an answering strategy which
 370 was not the one most prominent in the L2. Finally, Belletti and
 371 Leonini (2004) enrolled seven more L2 learners as the last group
 372 of participants with different L1s (e.g., Greek, Albanian, Polish);
 373 the group was very successful at producing target-like outputs
 374 of the VS kind (91%) across all verb types (range 87–93%).
 375 All participants in the third group were native speakers of
 376 null subject languages, which should explain their success at
 377 producing the target VS answering strategy⁷, in contrast with the
 378 German and French groups. As discussed in Section "Answering
 379 Strategies," the possibility to focalize the subject in the postverbal
 380 position crucially relies on the availability of a silent *pro* in
 381 the preverbal subject position, i.e., the null subject property, a
 382 necessary (although not sufficient, see footnote 2) condition for
 383 VS. The low production of VS structures shown by the French
 384 and German groups might be interpreted as a difficulty for
 385 learners to take into account all syntactic properties of *pro*, which
 386 finally results in the unsuccessful resetting of the null subject
 387 parameter. However, that this cannot be the case is indicated by
 388 the fact that null subjects in Italian are largely available in both
 389 groups. Hence the conclusion must be that access to VS under the

391 ⁶The phenomenon is even more striking when data analysis takes into
 392 consideration the argument structure of the verbs in use: cleft production by
 393 L1 speakers of French is particularly high in elicited Italian answers containing
 394 either a transitive verb (88%) or an intransitive verb of the unergative kind (80%).
 395 Differences among verb types will be further addressed in Section "Results."

396 ⁷These data are confirmed also by an independent study run with L1 speakers of
 397 Polish: Labuz (2012) ran the Polish version of the test in use in Belletti and Leonini
 398 (2004) with 16 monolingual L1 speakers of Polish and found that they produced VS
 399 structures in 84% of the answers with NISs. The strategy remains active in Polish
 400 speakers of L2 Italian (15 participants), who perform almost target-like in Italian
 401 (95% of VS answers).

400 appropriate discourse conditions and availability of null subjects
 401 do not go together in L2 acquisition (see footnote 2 and the
 402 discussion in Belletti and Leonini, 2004). To sum up, results from
 403 this first study show that the L1 answering strategy remains active
 404 in adult L2 learners: when the production of NISs is elicited in
 405 L2 Italian, German speakers mainly produce SV answers, French
 406 speakers generally produce clefts, and only native speakers of
 407 null subject languages are successful in producing the target VS
 408 answer.

409 Postverbal subjects are hardly produced also by advanced
 410 learners who qualify as near-native speakers of Italian and have
 411 either British or American English as their L1 (Belletti et al.,
 412 2007). Results reveal that, despite their advanced acquisition of
 413 Italian, their use of the target-like VS strategy is still rather
 414 limited. Participants tend to produce SV structures with preverbal
 415 subjects focalized through prosodic prominence, in line with
 416 the dominant strategy in their L1⁸. Moreover, data from further
 417 independent tests run in the quoted study show that participants
 418 can use null subjects in an appropriate way⁹. This confirms the
 419 conclusion already drawn for non-advanced speakers of Italian
 420 reviewed above: most L2 speakers of Italian (with English-,
 421 German-, and French L1) show a dissociation between the use
 422 of null subjects and the production of postverbal subjects, with
 423 the latter not showing any significant development in time when
 424 the L1 is a non-null subject language. Overall, data from the two
 425 reviewed studies show a persisting difficulty in the production of
 426 target-like VS structures, with a parallel persisting activation of
 427 the prominent strategy of the native language (i.e., SV for English
 428 and German speakers).

429 In conclusion, the aspects of the background literature on
 430 the mastering of properties of subjects in Italian by multilingual
 431 speakers, relevant for the present study can be summarized
 432 as follows. Firstly, native speakers of Italian might show signs
 433 of attrition in this domain. The phenomenon, reported in
 434 Tsimpli et al. (2004) mentioned at the outset of this section,
 435 concerns Italian native speakers who qualify as near-native
 436 speakers of English and show altered interpretation of overt
 437 subjects. Whereas monolingual speakers of Italian interpret overt
 438 pronominal subjects of subordinate clauses as instantiations of
 439 Topic-shift with respect to the matrix clause subject, L2 speakers
 440 show a higher acceptance of coreference of the two subjects. Thus,
 441 attrition manifests itself in those speakers in the form of a broader
 442 acceptance of overt pronouns. As this work showed changes and
 443 attrition in the interpretation of subjects with respect to their
 444 overt/non-overt pronominal realization, this further encourages
 445 us to investigate whether another discourse-related property, i.e.,
 446 the pre-/postverbal position of the overt subject might similarly
 447 undergo attrition.

448 Despite correct use of the null subject property, L2 learners
 449 of Italian show persisting difficulties at achieving a target-like
 450 use of the related property yielding the order VS in answers
 451 containing a NIS even at advanced stages of acquisition. The

452 ⁸Except for sentences that include existential structures of the *c'è/ci sono* kind (i.e.,
 453 'there is/there are'), as was also the case for the non-advanced French and German
 454 groups discussed earlier.

455 ⁹Although overproduction of overt pronominal subjects can also be detected in
 456 their oral production (Belletti et al., 2007, p. 672).

457 fact that target answers are correctly produced in the second
458 language only by those speakers whose L1 is a null-subject
459 language suggests that the successful acquisition of the relevant
460 answering strategy might be dependent on an early setting of
461 the parameter in child acquisition. In this line of reasoning, we
462 speculate on the idea that the native answering strategies cannot
463 be easily inhibited in L2, especially in the case in which these
464 lead to the production of grammatical sentences in the target
465 language (although infelicitous in the given context as, e.g., use
466 of SV instead of VS in Italian).

467 Results from the two groups, i.e., attrited native speakers and
468 L2 speakers, seem to point to two different hypotheses for the
469 mechanism that shapes answering strategies. On the one hand, L1
470 attrition within the domain of pronominal subject interpretation
471 shows that this is actually an unstable domain, whose system can
472 be influenced by advanced L2 acquisition. In this vein, we can
473 hypothesize that multilingualism shapes answering strategies in
474 forms that depend on the properties of the languages involved.
475 On the other hand, the observation of L2 learners suggests
476 the hypothesis that answering strategies are crucially shaped in
477 childhood, and L2 learners experience difficulties in inhibiting the
478 native strategy when this offers grammatical options in the L2 (as
479 it is the case for subject clefts and SV structures in Italian). We can
480 therefore hypothesize that answering strategies are in place from
481 very early ages and eventually keep stable despite the presence
482 of competing L2 grammatical options, thus turning nativeness
483 and amount of input in L1 acquisition into the crucial factors
484 for shaping answering strategies. If this hypothesis is correct, we
485 should find an Italian native-like performance in our multilingual
486 speakers. We take into consideration both hypotheses in what
487 follows by analyzing the role of multilingualism, nativeness and
488 amount of input in L1 acquisition in answering strategies.

491 RESEARCH QUESTIONS

493 In the previous section, we sketched out two plausible routes
494 for the shaping of answering strategies in multilingual speakers.
495 In order to enlarge the body of data at our disposal and to
496 analyze the two hypotheses, we run a test on the production
497 of answering strategies in two groups of multilingual speakers
498 who share the same languages. All our participants are Italian–
499 German speakers; however, for one group of speakers, Italian
500 is the native language and German is the L2; for the second
501 group of participants, Italian is the heritage language and
502 German is the majority language. We refer to the first group
503 as adult L2 speakers (AL2S), and to the second group as HSs.
504 To the best of our knowledge, these two categories with the
505 Italian–German combination have never been tested before
506 for the production of answering strategies. Together with data
507 from previous studies on L2 acquisition (Belletti and Leonini,
508 2004; Leonini and Belletti, 2004) and on near-native speakers
509 of Italian (Belletti et al., 2007), we will complete the picture
510 of how answering strategies are computed by Italian–German
511 multilingual speakers. In particular, by choosing participants who
512 speak Italian and German in different settings and with different
513 acquisition histories (adult L2 acquisition of German, or Italian as

514 heritage language), we want to investigate how different factors
515 contribute in shaping answering strategies. In particular, the
516 factors that we take into consideration are nativeness, amount of
517 input in childhood, and multilingualism.

518 As pointed out by Kupisch and Rothman (2016, a.o.), the
519 opposition between HSs and native speakers is not correct from
520 the theoretical point of view; in fact, HSs are also native speakers
521 of the heritage language. In other words, they cannot be opposed
522 to native speakers, because they are native speakers of the heritage
523 language themselves. From this point of view, HS, AL2S and
524 monolingual speakers do not differ, because they all started
525 acquiring Italian from birth in the familial environment, such
526 that they can all be considered native speakers of Italian. If
527 being a native speaker is the crucial factor in shaping answering
528 strategies, we should find homogeneous performances across
529 speakers' profiles. However, one important difference among
530 the groups might be the amount of input received during
531 L1 acquisition. Monolingual speakers and AL2S all grew up
532 only with one language; therefore, we can assume that they all
533 received a comparable amount of input in the critical period.
534 In contrast, HSs grew up in a community characterized by a
535 majority language other than the heritage language. Hence, the
536 input they received in the heritage language is different from that
537 received from the two groups who grew up in a monolingual
538 setting in Italy, both from the quantitative and the qualitative
539 point of view. Although this is subject to extreme individual
540 variation, HSs have on an average a more limited access to
541 the heritage language because the majority language usually
542 covers some relevant communicative functions (e.g., education,
543 interaction with peers in public spaces, TV shows, etc.). As for
544 the linguistic phenomenon at stake, HS are exposed to both
545 answering strategies (VS and SV answers) in the input through
546 the two languages. By comparing the three groups of speakers,
547 i.e., monolingual speakers of Italian and adult L2 speakers (of
548 German, L1 Italian) on one hand, and HSs (of Italian, German
549 the majority language) on the other hand, we aim at verifying the
550 role played by the input during language acquisition in shaping
551 answering strategies.

552 Moreover, subtle differences between AL2S and HS might
553 emerge in the two groups as an effect of different syntactic
554 conditions. As briefly mentioned in Section “Subjects at
555 the Interfaces: Previous Results From Multilingual Speakers,”
556 previous studies already reported that the argument structure of
557 the verb in use could have an influence on the adopted answering
558 strategy (see Belletti and Leonini, 2004; Belletti et al., 2007). The
559 analysis of the collected data will take into consideration the
560 verb class as a relevant factor in order to draw a comparison
561 between the experimental groups. Differences among verb classes
562 might reveal further interesting aspects of the performance of
563 multilingual speakers.

564 For the same reason, we want to add one further research
565 question, which concerns the realization of objects in transitive
566 structures. Although the study focuses on the production of NISs,
567 structures containing transitive verbs also offer the opportunity
568 to observe how the internal argument is produced in the specific
569 discourse context. In fact, the object is usually given in the
570 question in use for triggering the answering strategy with NISs,

such that the element is a Topic and should be realized as a pronoun in the answer, specifically as a clitic pronoun in a language with clitics like Italian. We will observe which strategy multilingual speakers put in use to convey Topic-like objects and their interaction with NISs.

To sum up, in the present study we intend to address the following research questions:

- (i) Do multilingual speakers produce different answering strategies with respect to monolingual speakers of Italian?
- (ii) If so, does the type of acquisition setting (monolingual/bilingual) play any role in shaping answering strategies? To what extent do the strategies for NISs realization differ in the two groups?
- (iii) Does the verb class affect the type of answering strategy activated by participants?
- (iv) How are objects realized when the answer contains a transitive verb?

With respect to questions (i) and (ii), we can make the following speculations: if nativeness is the decisive factor in shaping answering strategies, we expect AL2S and HS to perform similarly to MonoL1 speakers. Alternatively, it could also be argued that the decisive factor is the amount of input received during L1 acquisition; if that is the case, we expect AL2S and MonoL1 to perform similarly, but not HS. Finally, if multilingualism, and the subsequent presence of both conflicting strategies in the input through the two languages, is the decisive factor, we should find a third pattern of performance: HS and AL2S performances should pattern alike, but crucially differ from that of MonoL1. The pattern of performance across the three experimental groups (MonoL1, AL2S, and HS) should reveal which factor among nativeness, amount of input in L1 acquisition, and multilingualism plays the bigger role in shaping answering strategies. Moreover, results could shed light on the kind of input received by HS in the multilingual environment they grew up in, since native speakers with an advanced command of the L2 (and therefore potential attrition of the L1) ultimately represent the privileged source of input for HS.

MATERIALS AND METHODS

Participants

The following groups of speakers took part in the present study: 22 adult heritage speakers of Italian (HS) with German as the majority language, and 20 adult L2 speakers (AL2S), who are native speakers of Italian and acquired German as L2 after childhood. Their results will also be compared to those of a group of monolingual speakers of Italian (MonoL1), whose data are reported from the original study presented in Belletti and Leonini (2004).

Heritage speakers grew up in Germany and were exposed to Italian since birth by either one or both parents, who were native speakers of Italian¹⁰ and used the language in the daily interaction

¹⁰In 10 families both parents were native speakers of Italian; in 10 families one parent was a native speaker of Italian and one parent was a native speaker of

with the child. At the time of testing all HS reported to use Italian as the family language together with German. Except for two speakers whose parents had moved away from Italy during childhood, all other HS participants were second generation children of parents who left Italy in their early adulthood. HS participants were educated in the majority language, but 20 of them (out of 22) also took formal courses of Italian at school and/or at the university. Based on these data, we assume that HS have received a reduced amount of input in the heritage language with respect to monolinguals¹¹. At the time of testing, all participants were enrolled as undergraduate students at the Goethe University of Frankfurt. No minimum level of proficiency in Italian was required to take part in the study. However, in choosing participants for this study we particularly took into consideration two factors: formal education and contact with the family of origin. First, in line with the studies discussed in Kupisch and Rothman (2016), we assume that formal education in the heritage language and literacy can allow for higher proficiency and closer to monolingual-like performance. Second, the young age of the participants translates into closer and ongoing relationships to their families of origin, which plays a relevant role in heritage language maintenance. As previously pointed out by O'Grady et al. (2011) and by Polinsky (2011), heritage language attrition can take place over the life-span as an effect of reduced contacts to the family and the community of origin, i.e., reduced use of the heritage language in everyday life. We aimed at recruiting high performing participants by choosing young adults who are (or have been) engaged in formal courses of Italian on a regular basis and who maintain a tight contact with the family of origin in which Italian is spoken. We expect the enrolled participants to have benefitted from their exposure to multiple diversified speakers in a number of varieties and registers during their education and from the contacts with the family of origin and, possibly, with the Italian community. Although the two factors will not be analyzed as experimental factors in our analysis, we point out that, based on previous results from the literature (O'Grady et al., 2011; Polinsky, 2011, a.o.; Kupisch and Rothman, 2016), they were included in the guidelines for the recruitment of high-performing participants.

Adult L2 speakers (AL2S) were native speakers of Italian, who grew up in Italy as monolingual speakers of Italian, moved to Germany as young adults (most AL2S moved to Germany during University years), and learnt German as L2. In most cases, relocation to Germany was preceded by some formal courses of German as L2 taken at Italian schools or universities. Participants from this group all reported using German on a daily basis both at work and at home, although in variable amounts. The same holds true for Italian: they all reported to use Italian daily, in familial interactions and/or in a variety of entertaining and social activities (e.g., watching/reading the news, films, books, social media interaction, etc.). Although to the writers' knowledge there

German; in 2 families one parent was a native speaker of Italian and the other parent was a native speaker of a further minority language (i.e., Hungarian or Polish), but this was not transmitted to the child.

¹¹For reasons of space we cannot discuss here how the amount of input in the target languages can be measured in a bilingual context, but see Grüter and Paradis (2014) for detailed discussions.

is no acknowledged minimum amount of exposure time to the L2 in order to allow for the onset of attrition effects, we nonetheless set the requirement of a minimum of 4 years of continuative stay in Germany with the described systematic use of German for AL2S participants to enroll in the study.

The characteristics of HS and AL2S participants are summarized in **Table 1**, together with the information on the monolingual speakers, whose data are reported from Belletti and Leonini (2004).

As reported in **Table 1**, AL2S were older than HS on average: this is intrinsically due to the characteristics of the participants we decided to enroll. On the one hand, AL2S learnt German as L2 after childhood, moved to Germany as young adults, and certainly needed some years in order to achieve a good competence of German. On the other hand, HS are young undergraduate students, who still live with the family of origin in most cases. This explains why it would have not been possible to match the two participant groups for age.

In the fourth column, we report data on the amount of years spent in Germany by participants in the two groups. On average, AL2S speakers had spent 13;7 years in Germany at the time of testing (range: 4–28;3 years). As for HS, the data roughly corresponds to their age, as they spent all their lives in Germany, except for medium-term periods of stay in Italy (less than 1 year¹²).

Both groups underwent two cloze tests, one for Italian and one for German: both versions of the test consisted in a text from a newspaper article¹³, from which several functional and lexical words were erased. Participants were requested to fill in the gaps. Despite the absence of at ceiling performances, AL2S completed the Italian version of the test better than the German one, whereas HS showed the opposite pattern, with better performance in the German than in the Italian test. Results from the two groups differ in the Italian test (interval of accuracy in AL2S = 0.80–0.90; and in HS = 0.49–0.63), but not in the German one (interval of accuracy in AL2S = 0.57–0.80; and in HS = 0.74–0.81). We take the results of AL2S on the German test as a proof of their good command of the L2.

As to MonoL1 participants, Belletti and Leonini (2004) tested 10 native speakers of Italian, who came from different Italian regions. Their age ranged between 20 and 33 years old. No cloze test was performed in the original study as their command of Italian was evident.

¹²One participants also reported to have lived for 1 year in an English-speaking country during childhood.

¹³The two texts in use differ for the two languages (one was not the translation of the other), such that the comprehension of one text could not bias the completion of the other one.

TABLE 1 | Participants' characteristics (data for MonoL1 are reported from Belletti and Leonini, 2004).

Participants	N°	Age range Mean (SD)	Years in Germany (SD)	Cloze-t IT (SD)	Cloze-t GE (SD)
AL2S	20	26–60 41;1 (8;3)	13;7 (5;1)	85.5% (2)	69% (5)
HS	22	21–38 25;6 (5)	25;6 (5)	56.4% (3)	77% (1)
MonoL1	10	20–33	–	–	–

Materials

We collected data on answering strategies through the elicited production task first presented in Belletti and Leonini (2004).

Participants watched 22 short videos and listened to 40 experimental questions, which triggered answers with NISs. Videos depicted characters involved in daily activities and ended with one of the actors asking a question on the identification of the subject. One or two further questions were also audio played at the end of each video concerning the event represented in the scene to serve as distractors. Participants were instructed to produce oral answers expressing the verb (thus allowing for the observation of the subject position); they were also explicitly encouraged to answer the questions in the way that sounded the most natural to them.

Experimental questions are distributed across four conditions, i.e., 20 finite sentences containing a transitive verb (7), 4 sentences with an unaccusative verb (8), 10 sentences with an unergative verb (9), and 6 sentences featuring existential structures with the Italian copula (10).

- (7) *Chi ha aperto la finestra?*
Who AUX open.PP the window
'Who opened the window?'
- (8) *Chi è arrivato?*
Who AUX arrive.PP
'Who arrived?'
- (9) *Chi ha urlato?*
Who AUX scream.PP
'Who screamed?'
- (10) *Cosa c'è sopra il tavolo?*
What CL AUX on the table
'What is on the table?'

The test material also included 19 fillers in the form of questions that concerned the video content but did not trigger answers with NISs. Experimental questions and fillers were randomized throughout the task.

Procedure and Coding

Participants were tested individually and the test took approximately 12–15 min. Their outputs in the elicited production test were recorded with an aLLreLi (ALLCP0033_Q9G) digital voice recorder and later transcribed and coded by a researcher. Data from the cloze tests described above were coded by two students: a native Italian speaker coded the data from the Italian cloze test, while a native German speaker coded the data from the German cloze test. All results were cross-checked by a second researcher.

Since the goal of our study is the observation of the position of NISs, only answers containing (at least) the subject and the verb were relevant for our analysis. Therefore, all subject-only answers were discarded (11). In addition, non-relevant answers were excluded from our analysis; i.e., answers that did not contain the required Subject of New Information (12–13).

- (11) *La ragazza*
The girl
'The girl'
- (12) *Non ho visto*
Not AUX see.PP
'I didn't see it'
- (13) *Non lo so*
Not CL know
'I don't know'

Only main clauses containing the subject and the verb were analyzed and classified under either one of the three following categories, depending on the word order and the syntactic structure: VS answers (14), SV answers (15), and OTHER answers (16–17). The label OTHER was used for any grammatical sentence, whose syntactic structure did not correspond to the SV or VS word order. It turned out that the majority of them were (reduced) clefts (16) or passive structures (17).

- (14) *L'ha aperta la ragazza*
obj.CL AUX open.PP the girl
'The girl opened it'
- (15) *La ragazza l'ha aperta*
the girl Obj.CL AUX open.PP
'the girl open it'
- (16) *Era la ragazza*
was the girl
'It was the girl'
- (17) *La finestra è stata aperta dalla ragazza*
the window aux.be.pass open.pp by-the girl
'The window was open by the girl'

Answers with transitive verbs were also further analyzed depending on whether the clausal object was produced as a clitic pronoun [see example (14–15) above] or as a lexical DP, as in (18):

- (18) *La ragazza ha aperto la finestra*
the girl AUX open.PP the window
'The girl opened the window'

One further aspect we took into consideration with transitive verbs is the position of the object with respect to the verb and the subject (e.g., SVO or VOS); the issue will be addressed in details in the "Results" section.

RESULTS

Outputs from participants in the AL2S and HS groups were transformed into percentages according to the answering strategy

in use (VS/SV/Other) in order to allow for a comparison with results from the MonoL1 group (reported from Belletti and Leonini, 2004). **Table 2** offers a descriptive overview of the results from the three groups.

The data analysis was carried out using SPSS Statistics Version 17.0. Pairwise comparisons were run in order to analyze the outputs of the three experimental groups. Data revealed that both AL2S and HS perform differently from MonoL1 in the production of VS and SV answers. First, we compared AL2S against MonoL1. The Mann–Whitney tests indicated that the number of VS answers is higher for MonoL1 speakers ($Mdn = 98.5$) than for AL2S speakers ($Mdn = 66.66$), $U = 3.00$; $p < 0.001$; $r = 0.78$. In turn, more SV answers were produced by AL2S ($Mdn = 11.36$) than by MonoL1 ($Mdn = 0$), Mann–Whitney $U = 17.50$, $p < 0.001$, $r = 0.67$. No significant difference was found in the production of 'Other' answers between MonoL1 ($Mdn = 0$) and AL2S ($Mdn = 3.03$), Mann–Whitney $U = 67.00$, $p = 0.155$, $r = 0.28$. Second, we compared HS against MonoL1. The Mann–Whitney tests indicated that the number of VS answers is higher in MonoL1 ($Mdn = 98.5$) than in HS ($Mdn = 51.25$), $U = 5.000$, $p < 0.001$, $r = 0.75$. The SV answering strategy was more frequent in HS participants ($Mdn = 45.97$) than in MonoL1 speakers ($Mdn = 0$), Mann–Whitney $U = 6.500$, $p < 0.001$, $r = 0.74$. The two groups did not differ in the production of 'Other' answers (MonoL1 $Mdn = 0$, HS $Mdn = 0$, Mann–Whitney $U = 92.000$, $r = 0.14$). Based on these results, we conclude that both AL2S and HS perform differently from MonoL1 when producing elicited answering strategies with NISs.

We also compared AL2S and HS and found that the latter produce more SV (HS $Mdn = 45.97$) than the former (AL2S $Mdn = 11.36$), Mann–Whitney $U = 137.00$, $p = 0.037$, $r = 0.32$. As for the production of VS and Other answers, no significant difference was found between the two groups of multilingual speakers.

Table 3 shows how participants' outputs distribute across answering strategies with respect to the kind of verb included in the question–answer pairs, i.e., transitive verbs, unergative verbs, unaccusative verbs, and existential structures.

Since MonoL1 speakers performed very consistently (see **Table 3**) across syntactic conditions (VS range 96–99%; SV range 1–5%, Other range 0–4%), we are going to set this group apart for

TABLE 2 | Production of VS/SV/Other answers by MonoL1/AL2S/HS (in percentages, SD, median).

	MonoL1	AL2S	HS
VS	98	61.59	50.52
SD	2.87	26.31	27.95
Median	98.5	66.66	51.25
SV	1.0	26.03	44.75
SD	2.16	27.91	28.78
Median	0	11.36	45.97
Other	1.0	12.38	4.73
SD	1.54	19.88	8.81
Median	0	3.03	0

TABLE 3 | Production of VS/SV/other answers by MonoL1/AL2S/HS in sentences with transitive, unergative, unaccusative verbs, and existential structures (in percentages).

	MonoL1			AL2S			HS		
	VS	SV	Other	VS	SV	Other	VS	SV	Other
Transitive	97.00	2.00	1.00	50.00	30.34	19.66	36.82	55.81	7.37
Unergative	99.00	1.00	–	66.49	26.63	6.88	49.77	46.37	3.86
Unaccusative	95.00	5.00	–	70.00	30.00	–	60.23	39.77	–
Existential	96.00	–	4.00	99.00	1.00	–	91.51	5.31	3.18

a moment in order to focus our analysis on multilingual speakers (AL2S and HS).

Mann–Whitney tests revealed that the use of SV answers significantly differs between AL2S and HS in sentences with transitive verbs and with unergative verbs. As for transitive verbs, the Mann–Whitney test showed that the production of SV answers is greater in HS participants ($Mdn = 60.0$) than in AL2S participants ($Mdn = 11.1$), $U = 129.00$, $p = 0.022$, $r = 0.35$. HS participants also produce more SV answers than AL2S speakers in sentences with unergative verbs (HS $Mdn = 47.2$, AL2S $Mdn = 12.5$, Mann–Whitney $U = 349.50$, $p = 0.041$, $r = 0.31$). Finally, no significant difference between the two groups is attested when the elicited answers contain an unaccusative verb or an existential structure. The two groups (AL2S and HS) produce comparable numbers of VS and ‘Other’ answers across all verb types (no significant difference revealed by Mann–Whitney tests).

We also wanted to look at data from a different perspective in order to analyze the distribution of VS and SV answers across conditions, and to check for relations between verb types and sentence structures. Our intention was to verify whether the argument structure of the predicate in use in the question–answer pairs plays a role in determining how NISs are produced, with respect to the overall activated answering strategy and in particular to the subject position.

It is evident from the data presented above that a strong relation holds for at least one condition, namely the one with the Italian copula for existential structures: in this condition, participants from both the AL2S group and the HS group are very consistent in replicating the VS word order, with the NIS following the copula (AL2S $mean = 99.00\%$; $SD = 4.35$, $Mdn = 100$; HS $mean = 91.51\%$; $SD = 22.9$; $Mdn = 100$). The pattern is very robust and alternative strategies are attested very infrequently. As for the remaining conditions, i.e., transitives, unergatives, and unaccusatives, no such straightforward result is observable.

Kruskal–Wallis tests did not reveal any significant difference within AL2S speakers in the production of VS and SV answers with transitive, unergative and unaccusative verbs. Based on this observation, we conclude that verb type does not play a role in determining which answering strategy is adopted by AL2S (not counting existential structures).

In contrast, data from the HS group reveal one interesting property: although the number of SV answers is stable across conditions (no significant difference revealed by Kruskal–Wallis tests), that of VS answers is not (see **Table 4**). From the descriptive

point of view, the number of VS structures is at its lowest alongside transitive verbs (36.82%), it increases with unergatives (49.77%) and becomes significantly higher with unaccusative verbs (60.23%). The Kruskal–Wallis test revealed that there was a difference between the number of VS answers produced with different verb types not quite reaching significance [$H(2) = 5.72$, $p = 0.057$] with a mean rank of 40.32 for unaccusatives, 33.66 for unergatives and 26.52 for transitives. Therefore, the argument structure of the verb in use in the sentence seems to have an influence on whether HS speakers adopt the VS answering strategy.

Based on the lowest number of VS answers reported alongside transitive verbs, we deduce that the presence of two arguments in the sentence might represent a relevant factor in determining the adopted structures. For this reason, we run a third round of analysis on answers with transitive verbs and observe how objects are realized. Our analysis takes into consideration two factors: (a) the object form, i.e., whether it is produced as a clitic or as a full-fledged lexical DP, and (b) its position with respect to the subject and the verb. As a result, different possible structures are attested for VS answers as well as for SV answers.

Starting with the first factor, i.e., the object form, data reveal that participants from both groups produce objects both as clitics and as lexical DPs (see **Table 5**).

This observation is particularly interesting in consideration of the fact that lexical DPs were not expected in this context, yet they characterize half of the answers. In the syntactic and pragmatic context offered by the experimental conditions in combination with the videos, objects of transitive verbs always appear in the eliciting questions and are therefore Topics, which express given

TABLE 4 | Production of VS answers by HS participants in sentences with transitive, unergative, unaccusative verbs (in percentages, SD, median).

HS speakers	Transitive	Unergative	Unaccusative
VS mean	36.82	49.77	60.23
SD	32.7	30.37	33.13
Median	34.1	52.8	70.85

TABLE 5 | Object production analysis (N° and in percentages).

	DP	Clitic
AL2S	192/343 (56.0%)	151/343 (44.0%)
HS	162/320 (50.6%)	158/320 (49.4%)

information in the answer. The repetition of the object Topic as a full lexical noun phrase in the answer is not felicitous; this is characteristically the condition in which the usage of a clitic pronoun is required, as indeed the behavior of native speakers from previous studies confirms (Leonini and Belletti, 2004; Belletti and Rizzi, 2017).

As for the second factor, i.e., the position of the object within the sentence structure, the analysis cannot be carried out without taking into account the subject position and therefore the overall answering strategy in use. In what follows we focus on VS and SV answers in turn and analyze the attested word order in the two strategies¹⁴. In VS answers the following word orders are attested: Clitic–Verb–Subject (cVS in 19), Object–Verb–Subject (OVS in 20), Verb–Object–Subject (VOS in 21), and Verb–Subject answers with object omission (VS in 22):

- (19) *L'ha aperta la ragazza*
obj.CL AUX open.PP the girl
- (20) *La finestra ha aperto la ragazza*
the window AUX open.PP the girl
- (21) *Ha aperto la finestra la ragazza*
AUX open.PP the window the girl
- (22) *Ha aperto la ragazza*
AUX open.PP the girl

As shown in ~~the~~ **Table 6**, speakers from both experimental groups mainly produce answers of the cVS type, thus realizing the object in the appropriate form of a clitic pronoun in VS answers.

The following word orders were found in SV answers: Subject–Verb–Object (SVO in 23), Subject–Clitic–Verb (ScIV in 24), and Subject–Verb answers with object omission (SV in 25):

- (23) *La ragazza ha aperto la finestra*
the girl AUX open.PP the window
- (24) *La ragazza l'ha aperta*
the girl obj.CL AUX open.PP
- (25) *La ragazza ha aperto*
the girl AUX open.PP

¹⁴The reasons for excluding answers of the OTHER kind from the analysis is rather straightforward: as reported above, this category mainly includes passives and reduced cleft. In passive structures, the internal argument is promoted to the subject position and is most likely produced as a fully fledged lexical DP, while in reduced cleft of the kind produced by our participants (see example 16 above) the object is just not there.

TABLE 6 | Word orders in VS answers (distribution in percentages).

	cVS	OVS	VOS	Omission
AL2S	95.5	0.0	3.2	1.3
HS	87.7	9.6	2.7	0.0

cVS, Clitic–Verb–Subject; OVS, Object–Verb–Subject; VOS, Verb–Object–Subject; omission, no object production.

Table 7 reports which word orders are attested in the SV answers of AL2S and of HS. When SV is the adopted strategy, the object is mainly produced as a full-fledged lexical DP in the postverbal position by both groups. We will comment on this alternative strategy in the discussion section.

Summing up, we can conclude that there is a strong relation between the object form and the adopted answering strategy. Objects are consistently produced as clitic pronouns in VS answers and as lexical DPs in SV answers.

DISCUSSION

The first result in the collected data is that AL2S and HS do not perform as MonoL1 in their production of NISs. Whereas the latter are very consistent in producing VS structures across all verb types, thus setting a clear benchmark for Italian, multilingual speakers typically access a wider range of options. All AL2S and HS participants produce VS answers, although in different amounts, which overall do not reach the rate of MonoL1 speakers. Among the attested alternative options, the most frequent output is the SV one, with a focalized subject in the preverbal position, namely the one described as prototypical in German answers. Although the distribution of VS and SV answers varies across the two groups also in relation to the kind of verb in use, we can clearly see that the two strategies, i.e., postverbal subject and prosodic prominence, are competing in multilingual speakers. The SV constituent order is certainly grammatical in Italian (which is an SVO language as witnessed by the word order in discourse neutral sentences) and multilingual speakers seem to overextend its use also to contexts with New Information Focus subjects. We surmise that this overextension takes place under the pressure of German.

Although we do not know which answering strategies multilingual speakers would produce in German in the very same conditions (no German version of the test is available), we can still assume that overextension works only in one direction. We do not expect to find VS answers of the Italian kind in their German, because the structure would be simply ungrammatical in this language¹⁵. In contrast, the possibility to use the German SV answers with NISs (respectively, 26.03% for AL2S, and 44.75% for HS on average) is left open (and probably even favored) by the grammaticality of the Subject–Verb word order in Italian. Based on these results, we must conclude that the direction of influence is independent of the status of the language (e.g., German as

¹⁵In German expletive *pro* and low lexical subjects are limited to impersonal passive structures (Hubert, 1989), which are not relevant in the pragmatic conditions elicited in the present study.

TABLE 7 | Word orders in SV answers (distribution in percentages).

	SVO	ScIV	Omission
AL2S	89.3	7.8	2.9
HS	85.3	13.1	1.6

SVO, Subject–Verb–Object; ScIV, Subject–Clitic–Verb; omission, no object production.

1141 L2 for AL2S or as the majority language for HS), and it rather
1142 depends on the characteristics of the languages involved.

1143 We can now answer the first experimental question regarding
1144 the comparison among the three groups and conclude that
1145 despite the fact that they are all native speakers of Italian, this
1146 factor is not sufficient in assuring the production of the same
1147 answering strategy in the relevant discourse contexts. The very
1148 consistent behavior of MonoL1 speakers is not replicated by the
1149 two multilingual groups, in which we rather found optionality.
1150 As for HS, we can assume that optionality is determined by
1151 the presence of both languages in their linguistic environment
1152 since childhood; whereas we claim that optionality emerges in
1153 AL2S as an effect of their advanced acquisition of German as
1154 L2. The phenomenon therefore qualifies as a form of attrition
1155 in AL2S, which manifests itself as an altered system of coding
1156 discourse information into the sentence syntactic structure. In
1157 sum, we conclude that being a native speaker of the target
1158 language is not sufficient *per se* in shaping answering strategies; in
1159 contrast, being a multilingual speaker of languages characterized
1160 by different strategies crucially leads to access to different
1161 strategies and optionality. Nevertheless, this optionality respects
1162 the grammatical constraints of the target language.

1163 Moreover, the results of the competition between the two
1164 main alternative strategies, i.e., VS and SV, seem to depend
1165 on the argument structure of the verbs in use, as shown by
1166 the comparison between AL2S and HS in the four syntactic
1167 conditions.

1168 The first and most straightforward observation is that there
1169 is actually no competition between alternative strategies in
1170 existential structures of the *c'è/ci sono* kind ('there is/there are').
1171 The consistent use of the structure does not leave open any
1172 possibility for the emergence of non-target-like structures in this
1173 condition, and the subject is realized in the postverbal position,
1174 mainly as an indefinite DP. Since existential structures with
1175 a postverbal subject are unproblematic even in intermediate
1176 speakers of L2 Italian, [as reported by Belletti and Leonini (2004)
1177 for their German- and French-speaking learners], it would have
1178 been very surprising if our participants had produced alternative
1179 strategies in the corresponding condition; and indeed this was not
1180 the case.

1181 The picture is more articulated in the three remaining
1182 syntactic conditions, namely those with transitive, unergative,
1183 and unaccusative verbs: although AL2S and HS essentially adopt
1184 the same answering strategies, their distribution varies in the
1185 two groups according to different patterns. In particular, AL2S
1186 and HS show a significant difference in their distribution of
1187 SV answers with transitive and unergative verbs, while the
1188 discrepancy between the two groups decreases with unaccusative
1189 verbs.

1190 The asymmetric distribution of SV answers between AL2S and
1191 HS shows that there actually is a persisting difference between the
1192 two groups (Mann–Whitney tests revealed differences between
1193 AL2S and HS in the production of SV answers, in particular
1194 with transitive and unergative verbs, see the “Results” section
1195 for details), such that growing-up as multilinguals and having
1196 access to both strategies in the input since childhood plays a
1197 role in determining a higher activation of the SV strategy in

HS (44.75% across conditions) in comparison to AL2S (26.03%
1198 across conditions), and a less frequent activation of the VS
1199 strategy (overall at 50.52% in HS, against 61.59% in AL2S).
1200 As for AL2S, although VS is still their most active strategy
1201 across conditions, they do not behave like monolinguals anymore
1202 because multilingualism has enlarged their range of answering
1203 strategies.
1204

1205 With respect to the relation between answering strategy and
1206 verb type, the pattern becomes clearer when we look at the overall
1207 distribution of VS structures: as for AL2S speakers, we see that VS
1208 answers are always the preferred strategy from the quantitative
1209 point of view, across all verb types; whereas for HS, the number
1210 of VS answers increases across the different verb categories. In
1211 HS VS answers are at their lowest on transitive verbs (36.82%),
1212 they increase with unergative verbs (49.77%), and they are even
1213 higher with unaccusative verbs (60.23%); this pattern allows for
1214 at least two observations. First, when comparing AL2S and HS
1215 the reduced difference between the two groups in sentences with
1216 unaccusative verbs is due to a specific increase of HSs' postverbal
1217 subjects with respect to the data attested in the other verb
1218 categories. Second, both groups produce the lowest number of
1219 VS answers with transitive verbs, thus signaling that the presence
1220 of a second argument in the structures might have an impact on
1221 the subject position too. We analyze both issues in turns.

1222 As for the former, at the core of the unaccusative hypothesis
1223 (Perlmutter, 1978; Burzio, 1986; Belletti, 1988; see also Belletti
1224 and Bianchi, 2016 for a more recent overview) is the fact that
1225 subjects of unaccusative verbs present different properties than
1226 the subjects of transitive and unergative verbs; specifically, they
1227 are first merged as the internal argument rather than as the
1228 external one; moreover, (indefinite) subjects of unaccusatives can
1229 be licensed internally to the verb phrase, thus remaining in the
1230 postverbal position. Based on the collected data, we assume that
1231 the specific property of the verb argument structure favors the
1232 production of postverbal subjects in HS. In other words, we
1233 suggest that the production of VS structures by HS might be
1234 determined, at least in part, by the property of unaccusative
1235 subjects *per se*¹⁶.

1236 As for the second issue concerning transitive verbs, the
1237 presence of a second argument in their structure seems to
1238 increase optionality; this leads us to the discussion of the fourth
1239 research question we raised, namely the one concerning the
1240 realization of the object in sentences containing NISs. Under
1241 the discourse conditions of the experimental task, the object of
1242 transitive verbs is present in the questions together with the verb,
1243 thus qualifying as a given Topic in the answer. In the elicited
1244 pragmatic condition, Topic-like objects are usually realized as
1245 clitic pronouns in Italian. For instance, Leonini and Belletti
1246 (2004), elicited answers to questions characterized by topic-like
1247 objects from monolingual Italian speakers and observed that
1248 participants were very consistent in producing clitic objects in
1249 their outputs (91%), and only rarely reproduced the complete
1250 lexical DP (7.7%) they had been exposed to in the question.
1251

¹⁶Given the indefiniteness requirement holding on the internal argument of unaccusatives, VS answers with an indefinite subject could have the subject in the VP-internal argument position of its first merge.
1252
1253
1254

1255 However, in the present study participants' answers only partially
 1256 meet this expectation: both AL2S and HS produce objects either
 1257 as clitic pronouns or as full-fledged lexical DPs in comparable
 1258 amounts. What is most striking in the data is that both groups
 1259 behave very much alike in their object realization because they
 1260 all show a strict correspondence between object form and subject
 1261 position: in VS answers, objects are mainly produced in the form
 1262 of clitics; while in SV structures, they are produced as lexical
 1263 DPs in the postverbal position, thus resulting in the SVO word
 1264 order¹⁷. Among the alternative solutions, we would like to briefly
 1265 comment on the fact that HS also produce the OVS word order
 1266 with lexical objects (9.6% of VS answers), thus realizing a pattern
 1267 that we interpret as possibly reflecting a V2-type structure in
 1268 their heritage language. The same strategy is not attested in the
 1269 AL2S group, thus indicating that attrition has not yet determined
 1270 the onset of the V2 computation in Italian. If we now consider
 1271 results with transitives alone, it would be hard to tell whether
 1272 the object form (clitic/lexical DP) determines the subject position
 1273 (postverbal/preverbal) or the other way around. However, due
 1274 to the fact that the production of VS is not at ceiling in the
 1275 unergative and unaccusative conditions, presence of the object
 1276 cannot anyway be the only cause for the production of preverbal
 1277 subjects.

1278 In light of the above discussion with respect to the
 1279 performance of HS, we would like to claim that the performance
 1280 on unergative verbs should be taken as the benchmark for the
 1281 production of postverbal subjects in HSs. Transitive structures
 1282 reduce the number of postverbal subjects, most likely as a reflex
 1283 of the presence of the object, mostly when it is realized as a lexical
 1284 DP and not as a clitic, as its discourse status would require. In
 1285 contrast, the number of VS answers increases with unaccusative
 1286 verbs because of the possibly wider source for postverbal subjects
 1287 (as either internal to verb phrase in the merge position as internal
 1288 argument of the verb, or as a NIS in the specifier of the low New
 1289 Information Focus position).

1290 Finally, we would like to point out another aspect of the overall
 1291 performance of HS participants. Although their production of
 1292 VS answers is relatively limited, the range of answering strategies
 1293 they produce is the same as in AL2S. Therefore, there is nothing
 1294 impoverished in their performance. The observation is relevant
 1295 because it further supports the claim put forth by Kupisch and
 1296 Rothman (2016; see also Rinke and Flores, 2014; a.o.) against
 1297 the description of HS as speakers characterized by an incomplete
 1298 grammar¹⁸. As far as the production of answering strategies is
 1299 concerned, nothing seems to be incomplete or incorrect in their
 1300 outputs, and the asymmetry must therefore be explained as a
 1301 consequence of their multilingual grammar(s). The claim that HS
 1302 speakers' grammar is not incomplete is based on the comparison
 1303

1304 ¹⁷The VOS order, only marginally possible in Italian, is attested very sporadically,
 1305 in the HS group only. The VSO order, impossible in Italian for principled reasons
 1306 (Belletti, 2004), is totally absent in both groups. This is an interesting convergence
 1307 with the results in the original study on L2 Italian by Belletti and Leonini (2004).

1308 ¹⁸See also Di Venanzio et al. (2016) and Schmitz et al. (2016), who argue against
 1309 incomplete acquisition of the heritage language in Italian-German HS who grew
 1310 up in Germany. Their claim builds on the lack of significant differences with respect
 1311 to monolinguals when the production of lexical/pronominal objects and that of
 null/overt subjects are analyzed in their spontaneous speech.

with AL2S, who certainly achieved a complete maturation of
 their native language while growing-up as monolinguals. Since
 we do not talk about incomplete grammar for AL2S, we do
 not do so for HS either. However, we could have reached this
 conclusion, i.e., that HS have an incomplete grammar, if we had
 only compared their performance to that of MonoL1 speakers:
 this shows the importance of choosing a richer array of speakers
 to which HS should be compared. Note that AL2S represent the
 prototypical source of input for HS in the familial environment;
 under this perspective, the similarity between AL2S and HS can
 be further evaluated as the sign of a rather successful acquisition
 of the target language by HS based on the quality of the input
 they received. The mild differences between AL2Ss and HS
 rather relate to the multilingual setting of the HS linguistic
 development.

CONCLUSION

As to the variables, we considered and which are factors
 contributing to language dominance, we can conclude that
 nativeness, multilingualism and amount of input in L1
 acquisition do not play equivalent roles when seen through
 the lenses of answering strategies.

In the present study, we showed that AL2S and HS have
 access to a wider range of answering strategies with respect to
 monolingual speakers, thus indicating that nativeness does not
 guarantee the production of homogeneous answering strategies
 (as attested in monolingual speakers). This leads to the second
 variable we considered, i.e., multilingualism: we interpret the
 presence of SV answers in AL2S as a consequence of the
 multilingual competence they developed in their adult life; the
 activation of the German SV word order while computing NISs
 in Italian shows that alternative strategies can take over the VS
 strategy in place from childhood (Belletti, 2007), thus resulting in
 attrited performance in L1. Based on these results, we conclude
 that language dominance within specific linguistic phenomena
 can possibly be undermined throughout the lifespan under the
 pressure of advanced L2 acquisition.

The role of the amount of input in L1 acquisition emerges
 from the data on the use of alternative strategies: since the two
 groups differ in the distribution of SV answering strategies, we
 claim that the condition in which L1 Italian is acquired (as the
 only L1 for AL2S or as the heritage language for HS) plays a
 role in determining how active the SV strategy is in Italian, and
 therefore also how (un)stable the production of postverbal NISs is
 in multilingual speakers. In particular, differences between AL2S
 and HS in the production of answering strategies can be better
 explained under an analysis that takes into consideration the
 argument structures of the verbs in use, with unaccusative verbs
 particularly favoring the production of postverbal subjects in HS.

Overall, optionality between VS and SV is attested in all
 multilingual speakers. Based on these results, we claim that
 the competence of HS is target-like because AL2S represent
 their typical source of input during early language development;
 therefore, nothing is missing, incorrect or incomplete in the
 grammar of HS.

1369 Finally, the analysis of answers with transitive verbs showed
 1370 a relation in both groups between the subject position and
 1371 the object form: AL2S and HS consistently produced object
 1372 clitic pronouns in combination with postverbal subjects, and
 1373 lexical object DPs in combination with preverbal subjects. Again,
 1374 the performance of multilingual speakers differed from what is
 1375 expected in monolingual speakers (i.e., Topic-like objects realized
 1376 as clitic pronouns), thus suggesting that this further discourse-
 1377 related structure is an unstable domain in multilingualism. The
 1378 phenomenon is well-known from L2 acquisition and should
 1379 be further explored in future research in the domain of L1
 1380 attrition and heritage language, with a particular attention to its
 1381 interaction with other arguments in the sentence. This is the topic
 1382 of current research.

1384 ETHICS STATEMENT

1386 Ethics approval for this research was not required as per the
 1387 guidelines of the Faculty of Modern Languages at Goethe
 1388 University as well as per national regulations. The test did not
 1389 involve any risk on participants' physical, mental and social
 1390

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1428 integrity. All adult subjects gave written informed consent to
 1429 participate in the study and could withdraw consent to use the
 1430 collected data at any time without reprisal.

1431 AUTHOR CONTRIBUTIONS

1433 AB conceived the idea of the study and wrote the Sections
 1434 "Answering Strategies" and "Subjects at the Interfaces: Previous
 1435 Results From Multilingual Speakers." IC collected the data
 1436 and wrote the Sections "Research Questions," "Materials and
 1437 Methods," "Results," and "Discussion." CP wrote the Sections
 1438 "Introduction" and "Conclusion."

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- 1558 **Conflict of Interest Statement:** The authors declare that the research was
1559 conducted in the absence of any commercial or financial relationships that could
1560 be construed as a potential conflict of interest.
- 1561
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