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The Level of Ambiguity Tolerance and FL Pronunciation Learning. Report on a Pilot Study – Part Two

1. Introduction

The present paper is a continuation of a long-term project. The research design and results of its first part, which concentrated on the influence of the level of ambiguity tolerance (LAT) on non-instructed foreign language (FL) pronunciation, have been presented in a detailed manner in Baran-Łucarz (2009). The study carried out among subjects who had not been provided with explicit phonological knowledge and systematic phonetic training showed that the pronunciation of ambiguity intolerant learners was significantly better than that of ambiguity tolerant individuals.

In this publication one can read about the second part of the project, i.e. whether LAT affected accuracy in FL pronunciation after a short period, and then after a whole academic year of practical phonetics, which offered the students formal instruction and systematic conscious exercises focused on FL pronunciation.

The article begins with a brief overview of the concept of ambiguity tolerance (AT)/intolerance (AIT).[1] What follows is a short reminder of the outcomes of the first part of the project. Then, the research design and results of the influence of LAT on accuracy in pronunciation after short-term and long-term phonetic training are presented and discussed. Some space is also devoted to reporting on whether phonological competence is determined by LAT, and if it correlates with accuracy in FL pronunciation. Finally, conclusions and limitations of the study are briefly presented.

[1] Most SLA researchers use the term Intolerant of Ambiguity in reference to individuals revealing a low level of AT. In the present paper, the two expressions are used interchangeably. When the term Intolerance/Intolerant of Ambiguity is mentioned, it is abbreviated to AIT.

2. The concept of ambiguity tolerance reconsidered

In most general terms, ambiguity tolerance refers to the extent to which an individual is "cognitively willing to tolerate ideas and propositions that run counter to one['s] belief system or structure of knowledge" (Brown 2001: 119). Since the construct has a history of over 60 years, it has been redefined by psychologists several times.

It was introduced for the first time by Frenkel-Brunswick (1949) as a personality attribute. For people who would show a considerably low level of AT, ambiguous situations were said to cause inner conflicts, anxiety and frustration. When confronted with facts, information, concepts that were contradictory to earlier preconceptions, such individuals were thought to use defense reactions, which would consist e.g. in not taking in and processing new evidence but rather adhering to initial prejudices. Such individuals were also found to look for black-white solutions and to show a preference for categorizing phenomena rather than ordering them along a continuum.

Budner (1962) defined AT as a person's tendency to view ambiguous situations as either threatening (AIT people) or challenging and desirable (AT individuals). According to him, an ambiguous situation is one that is characterized by novelty, complexity, or insolubility. Another type of ambiguous situation has been suggested by Norton (1975), i.e. an unstructured situation, which contains cues difficult to organize and interpret.

Among researchers who agree with such an explanation of the construct of AT are Furnham and Ribchester (1995). They explain that people with low AT try to avoid ambiguous (unfamiliar, complex or incongruent) stimuli/situations that make them feel stressed and uneasy, and push to premature reactions. On the other hand, a person with a high level of AT finds such stimuli/situations interesting and challenging, thus seeks for them.

Not all researchers treat the construct of AT as a personality trait. For example, Durrheim and Foster (1997) consider it to be rather situation-dependent. Such a claim seems to be supported by e.g. Naiman et al. (1975), who, besides finding a positive correlation between LAT and listening comprehension skills and imitation,[2] suggest that AIT learners might have a great difficulty not with the ambiguities found in the FL itself, but with ambiguities accompanying the FL learning context. Data confirming such a statement have been provided more recently also by DeRoma et al. (2003), who examined the relationship between LAT and several aspects of the FL learning situation. In their study, a negative correlation was found between AT and the subjects' declared importance of such aspects of the course as: information about the list and schedule of reading assignments, test dates provided in advance, and grading criteria presented to the students prior to the tests and exams.

[2] To see an overview of other studies examining the influence of LAT on FL learning, refer to Baran-Łucarz 2009.

Finally, an interesting contemporary theory has been put forward by Ehrman (1999), who claims that tolerance of ambiguity is strictly connected with and determined by the thickness and flexibility of ego boundaries. According to the researcher, it is the relationship between the two constructs that account for learning success. As Ehrman (1999: 75) explains, "Tolerance of ambiguity can be viewed as made up of three levels of function." At the first level – *the intake level* – the information from the outside world is either permitted or not to enter one's conscious schema of concepts. As a defensive reaction, thick ego boundary individuals might not be fully aware of new information (particularly if it is ambiguous) and perceive it "only superficially, without linking it to other knowledge" (ibid.: 75). At the second level, called *tolerance of ambiguity proper* (Ehrman 1993), the information that had been successfully perceived must be accepted. If the material/stimuli are either contradictory with the previous preconceptions or incomplete, thick boundary people will find this level particularly difficult. On the other hand, thin boundary individuals, who at the same time usually reveal a high level of AT "may become overwhelmed with all the information and treat it all as equally valid or as if it were all at an equal level of abstraction or concreteness" (Ehrman 1999: 75). Finally, we can talk of AT in reference to the process of *accommodation* of the new information, i.e. its integration with the existing schemata, which ought to lead to their change and restructuring. A low level of ambiguity tolerance, caused often by thick ego boundaries, can make an individual switch on defensive mechanisms, which at this level of information processing consist in alteration of the new concepts that have been taken in, so that they fit the already existing schemata and can assimilate with them, as if they never differed from the old ones.

3. LAT and non-instructed FL pronunciation

Data gathered among 45 subjects who, before the course in phonetics, acknowledged having received no or very limited formal instruction and practice in pronunciation during their FL education showed that LAT is not irrelevant. Both in the case of pronunciation of particular sounds, assessed via passage reading (Task 1), and pronunciation of words frequently mispronounced by Poles (Task 2), it is the AIT learners that proved to be better (see Table 1).

Table 1. Basic statistics for results of Task 1 and Task 2 achieved by ambiguity intolerant subjects (AIT) and ambiguity tolerant subjects (AT)

		Task 1	Task 2
AIT (N = 23)	Mean	17.17	19.91
	SD	2.99	6.43
AT (N = 22)	Mean	14.00	17.86
	SD	3.84	6.73

The results of the independent t-tests calculated for Task 1 and Task 2 (see Table 2) showed that the difference in the correctness of pronunciation of particular segments between AT and AIT students is statistically significant. This did not prove to be so in the case of Task 2 (for a discussion of possible reasons see Baran-Łucarz 2009).

Table 2. Results of the independent t-test for Task 1 and Task 2

Task 1	Task 2
$t_{obs} = 3.10$	$t_{obs} = 1.06$

df = 43; $p < .05$; $t_{crit} = 2.02$

Moreover, it is also a negative correlation between LAT and accuracy in pronunciation of vowels, consonants, consistency in using British or American English that was observed. Many of the obtained values were statistically significant of moderate strength (e.g. $r = -.43$, at $p < .05$, in the case of total scores for Task 1).

All in all, the first part of the project revealed that it is more advantageous to have a lower level of AT when not being offered any explicit help and systematic training in FL pronunciation. As suggested earlier in Baran-Łucarz (2009), it is probable that new ambiguous stimuli, e.g. FL segments, consciously or subconsciously capture the attention of AIT learners and, once accepted emotionally, are processed and stored more effectively than by the AT individuals.

Furthermore, such outcomes may result from the fact that AT learners, whom Ehrman (1999) considers to reveal thin ego boundaries, can be overwhelmed with the amount of new linguistic information offered in the input. They may not know what to consider more valid, and "find it difficult to decide what to focus on, to extract data out of their internal ocean of concepts, to organize their knowledge, and successfully reconstruct their cognition" (ibid.: 76). Thus, they seem to need scaffolding offered by the teacher.

4. LAT and FL pronunciation learning – short period of training

4.1. Subjects

The subjects of this part of the project are the same first-year students of the Institute of English Studies, University of Wrocław, that were involved in the first part of the project. However, by the end of semester one, when the recording to the second part of the project took place, 10 students had already resigned, decreasing the number of subjects to 35. While 16 of them were AIT, 19 were AT.

4.2. Treatment during the course in phonetics

First of all, it is vital to clarify that the actual course in phonetics was preceded by individual recording sessions, followed by detailed feedback offered by the course instructor (the author of this publication and project) as to the areas of the students' pronunciation that needed to be improved by them, and the norm, i.e. Received Pronunciation (RP) or General American (GA), that their accent seemed to be closer to and, therefore, could be chosen to be further worked on.[3] In most cases it appeared that the subjects were not aware of their problems in pronunciation, which proves again that little attention had been paid to this language aspect during their prior education.

What needs to be underlined is also the fact that each student was provided with a syllabus and informed about the purpose and content of the course, the order in which the segments would be practised, the form and terms of oral and written tests, materials that would be used, and criteria according to which they would be evaluated on tests and at the end of each semester.

The first semester of phonetics focused mainly on English consonants. After having discussed the discipline of phonetics and its types, norms of English, and general aspects of pronunciation, the phonetic alphabet (IPA) and basic terminology needed for describing the place and manner of articulation of consonants were introduced.

The next meetings were devoted to practising one or two segments. Each time a new sound was taught, its place and manner of articulation were provided by means of various techniques, i.e. the articulators were drawn on the blackboard, their movement and position were explained orally, sometimes shown with the use of hands (one representing the tongue and the other – the alveolar ridge), and always compared to Polish counterpart sounds. It is important to stress that the inductive approach was used, i.e. the learners were first encouraged to come up with hypotheses about whether and how particular sounds in English differ from the Polish ones, and what features they reveal. The instructor's role was to confirm or reject the students' ideas and make sure the concepts were clear to them.

After such a short theoretical part of the lesson, practical phonetics began. The training was mainly based on the book authored by Ponsonby (1987), which offers a possibility to practise producing segments in isolated words, sentences and finally in humorous dialogues. The items were repeated after the recording in lockstep, smaller groups, and individually. It was also the dialogues that were read together as the whole group and then individually, in pairs. Any time the sound seemed to be too far from the correct version, the instructor encouraged self-correction and provided the proper form that was to be repeated. The teacher's intervention and guidance

[3] Although the subjects wanted to know and, therefore, were informed which norm their accent was closer to, they were always given freedom to choose the accent they would like to learn to speak with. They were advised to choose the option – RP or GA – they liked best, i.e. they favoured the sound of and felt emotionally more comfortable with.

was also possible thanks to monitoring that took place everytime the students were working in small groups and pairs. The exercises from Ponsonby (1987) were frequently interwoven with game-like activities from other sources (e.g. Hancock 1995, Vaughan-Rees 2003, and activities prepared by myself), songs, and students' presentations, e.g. on different accents of English or aspects of connected speech.

Furthermore, some part of each lesson (from 15 to 20 minutes) was always devoted to the students transcribing the most difficult and often mispronounced vocabulary items that appeared in the particular unit of the book (Ponsonby 1987) that was being covered, which then the learners would have to transcribe during the written tests.

What ought to be clarified is the fact that, since the students were allowed to choose either RP or GA, the differences between these two norms were discussed in a detailed manner, and each time there was a different pronunciation of a word in RP and GA, it was made clear, by providing the two forms orally and with the use of phonetic transcription. Whichever accent the subjects had decided to work on, their lack of consistency in oral practice was always noted by the teacher. It is also in the written IPA tests that the students were expected to provide consistently either the British or American forms.

Finally, it seems worth adding that the learners were frequently reminded that their progress in pronunciation depends to a great extent on them, i.e. on whether and how they do pronunciation exercises at home and how much work and effort they put into it.

4.3. Instruments and data gathering procedures

4.3.1. Evaluation of pronunciation

Among the sounds that were practised during the first semester were the voiceless and voiced interdentals – /θ ð/. The diagnosis made before the course in phonetics showed that they belonged to the segments most often mispronounced. Many subjects substituted them with other sounds, mainly with /f/ or /v/, /s/ or /z/, /t/ or /d/ respectively. Improving the articulation of these segments was one of the priorities during the first semester. Consequently, drilling exercises aimed at automatizing proper habits were returned to almost every lesson since the moment they were first introduced. It seemed that many students needed time to come emotionally to terms with the proper articulation of these sounds.

Due to the above-mentioned factors and also the fact that incorrect pronunciation of interdentals is easy to perceive and identify, the production of these sounds was taken into account when trying to answer the question of whether LAT is important in the case of short-term pronunciation training supported by formal instruction.

At the end of the first semester, each subject was recorded while performing three tasks, the forms and aims of which were described two weeks before the oral test. One of them was reading a monologue (borrowed from Mortimer 1989), which they had not seen and had no possibility to practise before (Task 1).

Although the articulation of many sounds and consistency in using RP or GA were being assessed, it is only the production of interdentals that was used for further statistical analyses. The period of time counted from the moment the sounds were introduced first until the recording session was approximately two months, which was about six 90-minute phonetic classes. In the monologue there were 7 words with the voiceless and 10 with the voiced interdental sounds. Improper articulation of the segment resulted in subtracting 1 point. Altogether, for Task 1 a maximum score of 17 points could be achieved.

The second oral test (Task 2) consisted in reading the list of commonly mispronounced words (List 1) that the subjects had already seen during the first recording session (see Baran-Łucarz 2009, Appendix 1), all of which were transcribed during the course. Each time a word was pronounced incorrectly, 1 point was taken away. Using features of an accent other than declared, word stress placed incorrectly, L1 influence in pronunciation of segments, or simply pronunciation different from the norm found in a pronunciation dictionary resulted in losing a point. In this task, each subject could score a maximum of 36 points.

Finally, the subjects were asked to read another list of words (List 2), all of which were practised during the first semester, i.e. were drilled, transcribed, and appeared on one of the two transcription tests (Task 3). Analogously to the earlier tasks, a pronunciation error made in a vocabulary item resulted in losing 1 point. The articulation was considered improper as in the case of reading List 1. Since the list consisted of 36 words, students could be credited with a maximum of 36 points.

4.3.2. Measuring the level of AT

The level of the subjects' AT was measured while gathering data for the first part of the project, i.e. at the very beginning of the first semester of phonetics. As clarified in Baran-Łucarz (2009), a translated version of a 25-item questionnaire designed by Brown (1991), based on a 5-point Likert-type scale, was applied. The first 18 statements concerning general AT that reveals itself when reflecting on basic philosophical issues, and also in everyday situations, at school or work were taken directly from a standardized battery, i.e. from Norton's MAT-50 (Norton 1975). The remaining seven statements added by Brown were related to FL learning.

The answers were credited following a key prepared by Brown (1991). Each subject's level of general Ambiguity Tolerance, FL Ambiguity Tolerance and the overall score for AT could be measured. For further statistical analyses each student's total score for the test (TAT) was taken into account, which theoretically could range from 25 to 125 points. Taking into consideration Brown's scale allowing to class students into four groups of quite or moderately AT and AIT, and having analysed the normal distribution of the TAT scores, a border line between AT and AIT was decided on. All the subjects who scored at least 71 were classified as AT, while those whose total number of points was 70 and below were considered AIT.

4.4. Presentation of results

In the case of Task 1, where accuracy in pronouncing the interdentals was assessed, the mean scores achieved by the AT and AIT subjects were very similar (see Table 3). As the results show, it is the voiced segment that seems to cause more problems, than the voiceless counterpart sound. This can be explained by the fact that /ð/ appears in many function words, such as *the*, *they*, *this*, *that*, *then*, *than*, *although*, etc., whose occurrence in speech is very frequent. If the subjects' mispronunciation of /ð/ in these words had not been corrected during the long process of learning that had taken place before they started the studies at the university, a bad habit of pronouncing the sound, which is now difficult to free oneself from and get rid of, was sure to have been formed.

Table 3. Basic statistics for Task 1 – pronunciation of interdentals

	/θ/ (max. 7 pts) Mean / SD	/ð/ (max. 10 pts) Mean / SD
AT	5.89 / 1.82	5.74 / 2.64
AIT	5.94 / 1.29	5.63 / 3.07

So as to be certain that the level of AT does not determine one's accuracy in FL pronunciation when being provided with formal instruction and practice lasting for a short period of time, as the raw scores seem to be suggesting, independent t-tests were computed for all three tasks. Before calculating the t_{obs}, the assumptions underlying the application of a t-test (the scales assumption, independence assumption, normality assumption, and homogeneity of variance assumption) were checked. Since it is only the distribution of scores that shows signs of being slightly negatively skewed, while the rest of the assumptions are not violated, further steps to compute the t-tests were made. As Table 4 shows, indeed, in the case of each task, the value of the t_{obs} is lower than the t_{crit}, proving that the differences in pronunciation accuracy between the AT and AIT are insignificant.

Table 4. Basic statistics and results of independent t-tests for Tasks 1, 2, and 3 after a short period of phonetic training

	Group (N)	Mean (max pts)	SD	t_{obs}
Task 1	AT (19)	11.63 (17)	3.80	0.053
	AIT (16)	11.56 (17)	3.88	
Task 2	AT (19)	31.11 (36)	2.87	0.643
	AIT (16)	30.60 (36)	2.66	
Task 3	AT (19)	27.47 (36)	3.06	0.307
	AIT (16)	27.81 (36)	3.47	

$df = 33$; $t_{crit} = 2.042$; $p < .05$

Furthermore, it is also the results of Pearson product-moment correlations computed between scores achieved for pronunciation in Tasks 1, 2 and 3 by all the students and LAT that proved to be insignificant (Task 1: r =.20; Task 2: r =.17; Task 3: r =.07).

5. LAT and FL pronunciation learning – long period of training

5.1. Research design – subjects, instruments and data gathering procedures

After the whole academic year, during which the students were offered approximately twenty-six 90-minute classes of practical phonetics (the remaining 4 meetings were spent on individual recording sessions), the subjects' pronunciation was evaluated again. This time, the total number of students taking part in the study decreased to 29, among whom there were 14 AIT and 15 AT learners.

The second semester focused on vowels, though almost every lesson, one of the consonants introduced and exercised during the first semester was returned to and further drilled. The lessons had the same form as described in 4.2. At the beginning of the second semester, the students were reminded about the areas of pronunciation that would be worked on, the written IPA and oral tests, and the general evaluation criteria. One of the aspects that was constantly paid attention to, as in the first semester, was consistency in using RP or GA, both in oral production and in transcription tests.

In June, the third recording session took place, during which the subjects performed the following tasks: reading a monologue they had not been provided with earlier (chosen from Mortimer 1989) (Task 1), reading the same list of commonly mispronounced words that they had already read twice (Task 2), reading a list of vocabulary items that appeared in the second semester during the lessons and on the IPA tests (List 3). It is important to add that the students were informed about the type of tasks that they would be asked to perform during the oral test about two weeks before the recording session. It is also the criteria for assessing their pronunciation that were revealed to them.

5.2. Evaluation of pronunciation

In the case of Task 1, as on the previous occasions, an atomistic approach to pronunciation evaluation was used, i.e. points were distributed for several aspects of pronunciation that had been worked on during the whole academic year. The following segments were being assessed:

- Consonants:
  a) /θ/ /ð/ /ŋ/ – each worth 4 points;
  b) /ʃ/ /ʒ/ /tʃ/ /dʒ/ – altogether worth 3 points;
  c) /t/ /d/ – altogether worth 3 points;
- Vowels:
  d) /ɪ/ /iː/ /ɒ/ /ɔː/ – altogether worth 4 points;
  e) /ʌ/ /æ/ /aː/ – altogether worth 4 points;
  f) /uː/ /ʊ/ /ɜː/ – altogether worth 4 points.

In each subclass of sounds (from a to f) the points were distributed depending on how frequently the subjects pronounced particular segments properly. And so, 4 points were given when no mispronunciation appeared, 3 points – when an erroneous form was heard once or twice, 2 points – when the incorrect pronunciation appeared three or four times, 1 point was provided when five or six instances of mispronunciation were identified, 0 points was given when improper articulation was identified in seven and more cases. The maximum number of points that could be achieved in each class (from a to f) depended on how much attention and practice had been drawn to these particular segments during the course in phonetics, how annoying their mispronunciation is for an English native ear, the level of difficulty for Poles, and how often they appeared in the text. This explains why sometimes one sound is worth as much as 4 points, while in other cases four or two sounds altogether are worth 3 points, or three, four segments are credited with 4 points.

Furthermore, the subjects could lose points for 'miscellaneous' errors made in other areas than segments, such as word stress or lack of linking and fluency in reading. Finally, it is also consistency in using RP or GA that was evaluated. Each instance of not being consistent resulted in taking away a point. Consequently, the maximum score for Task 1 was 30 points.

In the case of Tasks 2 and 3, each word was worth 1 point, and its mispronunciation (a version different than provided in a pronunciation dictionary) resulted in losing a point. Since each list consisted of 36 vocabulary items, the maximum score in each case was 36 points.

5.3. Presentation of results

Table 5 shows that the outcomes are analogous to the ones found after the short period of training. It is already the mean scores achieved by AT and AIT subjects in each of the tasks that reveal whether the level of ambiguity tolerance has an influence on one's accuracy in pronunciation when being provided with formal instruction and practice or not. However, after having checked the assumptions underlying the application of an independent t-test, the t_{obs} values were computed and compared with the t_{crit} at $p < .05$.

Table 5. Basic statistics and results of independent t-tests for Tasks 1, 2, and 3 after a long period of phonetic training

	Group (N)	Mean (max pts)	SD	t_{obs}
Task 1	AT (15)	20.13 (30)	4.55	0.043
	AIT (14)	20.21 (30)	5.38	
Task 2	AT (15)	32.00 (36)	2.59	0.294
	AIT (14)	32.29 (36)	2.64	
Task 3	AT (15)	27.20 (36)	3.10	0.745
	AIT (14)	26.14 (36)	4.47	

df = 27; t_{crit} = 2.052; p <.05

The results of the t-tests show that in the case of all three tasks the differences in pronunciation accuracy between the AT and AIT are insignificant. Additionally, as could be expected, the Pearson product-moment correlations appeared to be both meaningless and insignificant (Task 1: r = –.07; Task 2: r = –.06; Task 3: r =.09).

6. LAT and phonological competence

The gathered data made it possible to observe whether phonological competence represented by results of written transcription tests is related to the level of AT that one has. The answer to the problem is provided by outcomes of the Pearson correlation computed between the subjects' LAT and scores achieved on four IPA tests, two of which took place in semester one, and two – in semester two.

Also, this time the correlation proved to be statistically insignificant irrelevant of how long the subjects had been attending the course in phonetics. The correlation coefficient ranged from r = –.04 (the first test written after approximately seven phonetics classes), through r =.10 (the second test after about 14 meetings), to r =.20 (the third test written after about 21 phonetics classes) and r =.13 (the fourth test written at the end of the course in phonetics, i.e. after about 30 meetings). Although each time the result is below the r_{crit} value (at p <.10, df = 27), a tendency may be observed, i.e. with time the relationship between the level of AT and competence seems to become more meaningful, though still of very weak intensity. It is also the relation between LAT and knowledge of differences between RP and GA that appeared to be insignificant (r =.22).

Furthermore, it was interesting to find out the strength of relationship between competence revealed in written transcription tests and actual performance, i.e. FL pronunciation habits measured in tasks where an atomistic approach to evaluation was used (Task 1) and pronunciation of vocabulary items transcribed in written tests (e.g. Task 3 – List 3). Since the articulation habits cannot be revealed by IPA fonts, it was surprising that still the correlation was found to be significant, though weak (see Table 6).

Table 6. Pearson product-moment correlation coefficients between results on IPA tests and pronunciation accuracy tested via Task 1 and Task 3 after the second semester of learning

	Task 1	Task 3 (List 3)
IPA test (sem. 2, test 1)	r = 0.38*	r = 0.65*
IPA test (sem. 2, test 2)	r = 0.34*	r = 0.61*

df (N-2) = 27; *p <.05; r_{crit} =.3233

In the case of pronunciation of individual words the correlation was significant and of moderate intensity (r =.65 and r =.61). This proves that, indeed, phonological knowledge is important and determines one's practical pronunciation skills, but still itself is not sufficient to pronounce the FL properly. It is most probably more automatization and time that are needed to make effective use of the competence in performance. There are also other factors, e.g. the affective ones, that may undoubtedly constitute a serious barrier when trying to put the phonetic and phonological knowledge into practice.

7. Discussion of results

The lack of relationship between LAT and accuracy in FL pronunciation that this research has shown, both after short-term and long-term learning, might seem just as surprising as the results of the study examining the influence of LAT on non-instructed pronunciation. In many prior observations of other researchers, though focused on other aspects or language skills, it has been usually found that AT learners outperformed their AIT friends after being provided with some teaching in the FL classroom. However, there might be a justification for such outcomes of this study.

First of all, the fact that the phonetics course had a clear structure with most of its aspects being explained in advance to all the students, such as the content outline of the course, the applied materials, the similar rather than unexpected form of each lesson, terms and forms of tests set in advance, criteria used for grading the tests as well as students' general progress at the end of each semester, might have indeed been important for the AIT learners. Such outcomes could support the claim that the construct of AT does not refer exclusively to ambiguities found in the content, i.e. in the FL itself, but to the structural ambiguities found in the learning situation, as Naiman et al. (1975), and Durrheim and Foster (1997) were suggesting, and DeRoma et al. (2003) proved in their research. Such features of the course might have made the AIT learners feel confident and secure enough to allow them to progress further without being taken over by their AT friends.

Secondly, it appears that the scaffolding and guidance provided by the teacher via the use of explicit formal instruction, consistent feedback, and mostly by helping perceive and understand the features of English pronunciation by offering it sequentially

in small packages might be particularly beneficial for AT students. As stated earlier, these learners, though they may not reveal difficulties with the intake stage, might have problems at the second level of information processing, consisting in not being capable of deciding by themselves what to consider important from the ocean of information taken in, what to focus on and further process. With the help of the instructor in this area and due to their thin ego boundaries, the AT learners could catch up quickly with their AIT friends, who, before the course, were more accurate in pronunciation.

Analysing the progress in pronunciation after the course in phonetics of an AT and AIT subject who, before the treatment, achieved one of the lowest scores might also shed some light on the issue of our interest. It is important to clarify that the learners chosen to have a closer look at showed high motivation to speak with proper pronunciation and had a very similar prior learning experience (same intensity and period/length of learning, amount of formal instruction and practice received in pronunciation, similar amount of time spent abroad). Prior to the course, unlike what the general tendency proved to be, the AT student was better than his AIT friend, i.e. while the former scored 56% from Task 1 and 44% from Task 2; the latter achieved 49% and 31% respectively. The difference between their level after the course in phonetics increased even more. While the AT student progressed a lot, scoring 77% for Task 1 and 81% for Task 3, the AIT learner achieved 20% and 44% respectively.

The results seem to show that in this case the AT subject benefitted far more than his AIT friend from the course in phonetics. At the beginning of the course, the AT student showed surprise that so many aspects of his pronunciation were far from the model, and initially revealed some reservation and mistrust when told about particular features of English segments. However, it was after a relatively short period of time that it became visible that the learner had come emotionally to terms both with properties of the segments and with himself pronouncing them in a new, i.e. correct way. In the case of the AIT subject, not only before but also after the course in phonetics, the learner seemed not to be aware of her pronunciation problems and strong L1 habits, as if still not accepting that the sounds differ from native language and that her pronunciation is far from the model. It appears that the clear structure of the course could not level and win with the thick ego boundaries and defense reactions switched on by the learner to protect her ego. The person might reveal a low level of AT at all three stages of information processing, not being able to take in, accept and accommodate the features of FL pronunciation that differ from L1 and are contradictory to her prior beliefs and expectations. It appears that in such cases more time and some special type of individual treatment is needed.

8. Conclusions and limitations of the study

The outcomes of the second part of the pilot study have shown that both after short-term and long-term phonetic training, whose structure is clear and which

uses multisensory instruction and consistent feedback, the level of AT does not determine the students' accuracy in pronunciation. However, the results have to be viewed with caution due to the scarce number of subjects involved in the study and the instrument applied to measure LAT.

It is also important to have in mind that the experiment was carried out among a specific group of students, whose talent for FLs is higher than that of an average person. Moreover, it is probable that different results might be obtained at lower levels of proficiency.

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