

# Designing a Tool for Measuring the Interrelationships between L2 WTC, Confidence, Beliefs, Motivation, and Context

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**Abstract** The study of language learners' willingness to communicate (WTC) has gained momentum since 1998 when MacIntyre, Clément, Dörnyei, and Noels (1998) presented a conceptualization of an amalgam of psychological, linguistic, educational, and communicative dimensions of language whose interplay underlies a person's wish to use the target language. The recognition of the importance of the concept as well as its potential to impinge on the outcomes of the learning process have generated a multitude of studies, especially in Chinese and Japanese contexts, which either attempt to test and verify MacIntyre et al.'s (1998) model or expand the array of factors that promote or hinder communication, both in the classroom and outside. The study reported in the present paper constitutes the first stage of a research project aimed to investigate the relationship between Polish learners' in-class and out-of-class WTC in English and a number of individual and contextual variables which can be seen as its antecedents, such as communication confidence, learner beliefs, classroom environment, international posture, ideal L2 self, and ought-to L2 self. More specifically, it sought to establish the psychometric properties of eight scales that were adjusted to reflect the realities of the Polish educational context and the specificity of English instruction in foreign languages departments. Since the analysis provided evidence for high reliability of the scales and the entire tool, a decision was made to retain all the original items so that they could be further verified by means of factor analysis in subsequent studies.

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## 1 Introduction

The importance of interacting in a foreign language that one is striving to master is hardly a matter of controversy, and it is recognized by the vast majority of second language acquisition specialists, teachers, learners and even those who are not directly involved in foreign language education. For example, it is regarded as an important mechanism facilitating the process of learning in a number of theoretical positions, both psycholinguistic and sociocultural in nature, such as the modified version of the Interaction Hypothesis (Long, 1996), the Output Hypothesis (Swain, 2000), Skill-Learning Theory (DeKeyser, 2007) and Sociocultural Theory (Lantolf, 2006), with ample empirical evidence in each case to buttress such claims. It is also clear that the ability to speak fluently and to successfully accomplish different communicative goals in a variety of situations is seen as one of the most important purposes of learning and teaching foreign languages, not least because it typically constitutes the yardstick for evaluating an individual's competence in the target language on the first encounter with native speakers or other foreigners. It should be kept in mind, however, that readiness to initiate or contribute to interaction in a particular time and place does not only depend upon the appropriate command of all the target language subsystems or the requisite skills, which can be measured more or less precisely, but also hinges upon a complex interplay of numerous psychological, linguistic, educational and communicative variables which is not easy to grasp. Therefore, it should not come as a surprise that willingness to communicate (WTC) in a second or foreign language has attracted the attention of numerous researchers who have attempted to explore its nature and identify the variables underlying its occurrence, character and intensity (e.g., Clément, Baker, & MacIntyre, 2003; MacIntyre, 1994, 2007; MacIntyre & Charos, 1996; MacIntyre, Clément, Dörnyei, & Noels, 1998; Peng, 2014). Such research, though, has concentrated upon contexts rather different from the Polish one, such as Canada, China or Japan, with the effect that the research instruments developed in the course of these studies cannot be fully applicable to the realities of our setting and thus cannot be uncritically used to collect relevant data. Moreover, some of them have been devised for very specific educational stages or proficiency levels, and fail to take into account the latest developments in information and computer technology that have led to the emergence and unprecedented spread of new patterns of communication. Thus, there is a need to develop new data collection tools or refine the existing ones with a view to obtaining a valid and reliable picture of WTC and its antecedents in specific populations. In recognition of this need, the present paper reports the results of a study, constituting part of a larger-scale research project, which aimed to modify some of the existing scales so that they can be included in a questionnaire used to examine WTC and variables underpinning it among advanced learners enrolled in BA and MA programs in English. First, the relevant theoretical background will be presented, which will be followed by the description of the methodology and results of the study, the discussion of these results and some directions for future research. A tangible outcome of the research project is a data

collection tool, included in the Appendix, which the authors will use as a point of departure for their further empirical investigations of WTC in the Polish educational context.

## 2 L2 WTC and Its Measurement

L2 WTC has been investigated at two different levels—as a trait, reflecting an individual's predisposition to initiate or enter communication when given the choice, or as a state characteristic, dependent on the transitory influences of a particular context. Both quantitative (e.g., MacIntyre, Baker, Clément, & Donovan, 2002, 2003; Peng, 2007, 2014; Yashima 2002) and qualitative (e.g., Cao & Philip, 2006; Cao, 2011; MacIntyre, Burns, & Jessome, 2011) research paradigms have been reflected in numerous studies conducted mainly in Canada and Asia. The model of L2 WTC proposed by MacIntyre et al. (1998) has inspired a substantial number studies in the course of which researchers have examined interdependencies between WTC and individual and contextual variables, which include age and gender (MacIntyre et al., 2002), motivation and attitudes (MacIntyre et al., 2002; Ryan, 2009), self-confidence (Clément, Baker, & MacIntyre, 2003; Yashima, 2002), international posture (Yashima, 2002, 2009), personality (Ghonsooly, Khajavy, & Asadpour, 2012; MacIntyre & Charos, 1996), and the classroom environment (Peng & Woodrow, 2010). As the results of these empirical investigations show, motivation, self-confidence and international posture have a consistent influence on learners' WTC (Clément et al., 2003; Ghonsooly et al., 2012; Yashima, 2002). Moreover, the available empirical evidence suggests that L2 WTC correlates with or can be predicted by the frequency of communication in the target language (MacIntyre et al., 2002, 2003; Yashima, Zenuk-Nishide, & Shimizu, 2004).

Most of the quantitative studies reported here made use of the probability-estimate scale, developed by McCroskey and Baer (1985), to investigate willingness to speak in one's first language (see Table 1). It comprises 12 items, in response to which the participants are expected to indicate the amount of time, from 0 % (i.e., never) to 100 % (i.e., always), when they feel willing to communicate. It also provides sub-scores for each of the following types of receivers: strangers, acquaintances and friends, and the following types of context: public meetings, small groups or dyads. The tool does not attempt to look into feelings underlying communication but rather tap into speakers' predispositions towards approaching or avoiding situations in which they have to interact, which rests on the assumption that respondents are aware of their orientations towards communication (McCroskey, 1992, p. 17). High internal consistency reliability ( $\alpha = 0.92$ ) for the whole scale and subscales for specific receivers ( $\alpha = 0.060\text{--}0.83$ ) and contexts ( $\alpha = 0.70\text{--}0.91$ ), reported in McCroskey and Richmond's (1992) study, were also corroborated in a number of other research projects (MacIntyre et al., 2002, 2003; MacIntyre & Charos, 1996), conducted in a bilingual context in Canada. The predictive validity of the instrument has been addressed by Chan and McCroskey (1987), and Zakahi and McCroskey

**Table 1** The measurement of L2 WTC in previous studies (adapted from Peng, 2013)

Study	Context	L2 WTC scale	Reliability Cronbach's alpha
MacIntyre and Charos (1996)	Canada	20 items from McCroskey and Baer's WTC scale	0.97
Baker and MacIntyre (2000)	Canada	20 items from McCroskey and Baer's WTC scale	0.97
MacIntyre et al. (2001)	Canada	27 items measuring L2 WTC inside and outside the classroom respectively	0.81–0.96
MacIntyre et al. (2002)	Canada	20 items from McCroskey and Baer's WTC scale	0.96
Hashimoto (2002)	USA	20 items from McCroskey and Baer's WTC scale	0.85
Yashima (2002)	Japan	20 items from McCroskey and Baer's WTC scale	0.91
MacIntyre et al. (2003)	Canada	20 items from McCroskey and Baer's WTC scale	0.95
Clément et al. (2003)	Canada	12 items from McCroskey and Baer's WTC scale	0.94
Yashima et al. (2004)	Japan	20 items from McCroskey and Baer's WTC scale	0.93
Weaver (2005)	Japan	17 items measuring L2 WTC in classroom speaking and writing situations respectively	–
Peng (2007)	China	27 items adapted from MacIntyre et al. (2001) L2 WTC inside the classroom	0.92
Ryan (2009)	Japan	8 items (including inside and outside classroom situations)	–
Yashima (2009)	Japan	8 items adapted from Ryan (2009)	0.86
Peng and Woodrow (2010)	China	10 items adapted from Weaver (2005), measuring L2 WTC inside the classroom	0.88
MacIntyre and Legatto (2011)	Canada	20 items from MacIntyre et al. (2003)	–
Ghonsooly et al. (2012)	Iran	12 items from McCroskey and Baer's WTC scale	0.94
Peng (2013)	China	8 items from Yashima (2009) outside and inside the classroom respectively	0.81–0.74
Peng (2014)	China	15 items adapted from Weaver (2005) meaning-focused and form-focused activities respectively	0.82–0.89

(1989) in the studies carried out in an experimental setting and, although the experimental situation differed from those referred to in the scale, in both of the studies, the scores proved to predict the respondents' behavior. While the scale items corresponding to everyday encounters with target language users were well-fitted to the bilingual context in Canada, its applicability to foreign language contexts soon began to be questioned (cf. Peng, 2013, 2014). As reported by Asker (1998, p. 164), for example, learners of English in Hong Kong felt confused about the formulations used in the scale and asked whether they should 'imagine' their behavior in situations they would not normally experience. Cao and Philip (2006), in turn, questioned the suitability of the generic trait measurement scale for the analysis of WTC in an instructional setting, pointing to the inconsistency they observed between self-reported WTC and actual WTC in the classroom. Worth noting at this point is the fact that the researchers expanded the scale with five items that referred to actions typically performed in the classroom in the three interactional modes: whole class, pair work, and group work. Despite the fact that the added items specifically concerned classroom interaction, the results showed no clear correlations between learners' self-reported WTC and their actual oral behavior.

MacIntyre, Baker, Clement, and Conrod (2001) developed a data collection tool that was intended to tap into L2 WTC with reference to specific skills. The scale concerned not only productive but also receptive skills, since, as the authors contend, "[e]ven receptive language use implies a commitment by an individual to authentic language use and might foster a willingness to communicate" (p. 375). The original rating scheme McCroskey and Richmond (1987) applied in their questionnaire (i.e., the percentage of time an individual was willing to speak) was changed to a five-point Likert scale, ranging from "almost never willing to speak" to "almost always willing to speak", on which the respondents were requested to indicate their skill-specific WTC. Reliability estimates for the four skills amounted to:  $\alpha = 0.81$  for speaking,  $\alpha = 0.83$  for comprehension,  $\alpha = 0.83$  for reading, and  $\alpha = 0.88$  for writing. Another measure, consisting of 27 items and using the same scale, was employed to delve into the respondents' willingness to engage in various communicative situations that necessitated the use of the L2 outside the classroom. The items were also indicative of four skill areas and the reliability estimates for the subscales were as follows: speaking  $\alpha = 0.89$ , listening  $\alpha = 0.90$ , reading  $\alpha = 0.93$ , and writing  $\alpha = 0.96$ .

Dissatisfied with the way that the examinations of L2 WTC based on McCroskey and Richmond's (1987) scale were conducted, Weaver (2005) reduced the scope of investigation to the conceptualization of WTC as a stable trait variable, thus failing to take account of its abstruse, situational antecedents. He developed a 37-item scale which targeted participation not only in oral but also written activities, and employed a four-point rating scale, where 1 stood for "definitely not willing" and 4 indicated "definitely willing", with the items included in it representing the typical speaking and writing tasks and situations that Japanese learners of English were most likely to perform in the classroom. Ten items from this scale were adapted in the study undertaken by Peng and Woodrow (2010) which was aimed to examine classroom WTC of Chinese learners of English, with a reliability

estimate at  $\alpha = 0.88$  being reported. Justifying the changes introduced to the original formulations used by Weaver (2005), Peng (2013, p. 282) hinted that the lack of a clear reference to the type of receiver might have impacted the results since the relationship between the speaker and interlocutor(s) is bound to affect an individual's readiness to enter into interaction, as was shown, for example, by Cao (2011) and MacIntyre et al. (2011). Hence, the word *someone* that might denote the teacher or another student was substituted with a term clearly denoting the type of interlocutor.

Peng (2007) used the 27 items from MacIntyre et al.'s (2001) scale to measure the WTC of Chinese learners of English inside the classroom. Some of the items had to be changed to make them correspond to tasks and activities familiar to the participants. The WTC in English in the classroom scale, with a reliability estimate of  $\alpha = 0.92$ , required the students to mark on a five-point scale the frequency with which they would choose to speak English in each of the listed situations. Ryan (2009), in turn, conducted a study in Japan that was meant to be a replication of a research project on motivation undertaken in Hungary (cf., Csizér & Dörnyei, 2005; Dörnyei & Clement, 2001; Dörnyei & Csizér, 2002; Dörnyei, Csizér, & Nemeth, 2006) and included WTC among the 18 motivational and affective variables in his questionnaire. The scale specifically asking the participants to evaluate their willingness to engage in communication consisted of eight items referring to situations both inside and outside the classroom, and was adapted from McCroskey's original measure. The same scale was applied in the study conducted among Japanese learners of English by Yashima (2009), who looked into the relationship between L2 WTC and international posture. It was later applied by Peng (2013) in the Chinese educational setting, with the caveat that a six-point rating scheme was introduced to avoid neutral responses. In this case, the scale was validated by means of confirmatory analysis, based on the results of exploratory factor analysis performed in a pilot study. In a subsequent study, Peng (2014) investigated classroom WTC, zooming in on its level in meaning-focused and form-focused activities, adapting for this purpose Weaver's (2005) scale but also eliminating what she considered the main weakness of the scale, that is the lack of specification of the type of receiver, so that the participants knew exactly who their interlocutors would be. Cronbach's alpha measures for WTC in meaning-focused and form-focused activities scales turned out to be 0.82 and 0.89, respectively, values which are highly satisfactory.

MacIntyre and Legatto (2011) used two 20-item scales that required the respondents to indicate their usual willingness to use the target language and their mother tongue, separately, with the items adapted from MacIntyre et al. (2003) and thus reflecting WTC at the trait level. The focus of the study was the development of an idiodynamic method that allows an in-depth analysis of the fluctuations in WTC across contexts and situations, which marked a significant turn in WTC research and heralded the onset of investigations of this attribute on a moment-by-moment basis. It should be pointed out, however, that even earlier a number of researchers recognized the need to address situational and dynamic aspects of WTC, and even if qualitative research into WTC is not the main theme of the present paper, it without doubt deserves a mention to portray the complexity of

the issue. Some researchers also embraced a mixed-methods approach (cf. Cao & Philip, 2006; MacIntyre & Legatto, 2011), looking into both stable behavioral tendencies and dynamic changes in response to the impact of contextual factors. For example, Kang (2005), having collected data by means of semi-structured interviews and stimulated recall, found that the decision to enter into communication emerged as a result of an intricate interplay of three psychological factors, namely security, excitement, and responsibility. Cao and Philip (2006), in turn, examined correlations between trait WTC and actual communicative behavior in three interactional situations, that is pair work, group work and whole class. They established that situational WTC was a function of group size, familiarity with interlocutors, their readiness to participate, familiarity with the topic, self-confidence and cultural background. However, they did not report correlations between WTC at the trait and situational levels, or between the participants' WTC in the three different situations. In a more recent study, Cao (2011), on the basis of the analysis of the data gathered by means of observations, stimulated recall interviews and reflective journals, concluded that L2 WTC in the classroom is shaped by individual, linguistic and environmental factors, an outcome that was subsequently corroborated in the case of variation in situational WTC in a longitudinal case study (Cao, 2013). The results suggest that WTC fluctuates both in the short and the long run, as a corollary of growing experience and confidence. Moreover, ebbs and flows in WTC can be registered from lesson to lesson or even from task to task during a single class. A more fine-grained perspective has been applied by MacIntyre et al. (2011), who demonstrated that learners can feel both willing and unwilling to communicate in certain circumstances as even a slight change in any one detail of interaction is capable of bringing about an abrupt shift in one's desire to speak or remain silent. Finally, in the study carried out by the present authors (Mystkowska-Wiertelak & Pawlak, 2014) L2 learners of English were asked to report on a scale from -10 to +10 their intention to speak during two types of tasks, monologues and dialogues, with interesting differences being detected between the subjects' WTC while performing the two tasks and tendencies within each task-type.

### 3 The Study

#### 3.1 *Aims and Methodology*

The aim of the study reported below was to devise a data collection instrument that could be used to tap advanced learners' WTC in a foreign language, such that would take into account the specificity of the Polish educational context and realities of the instructional setting, in this case the teaching of advanced learners in the practical and content components of BA and MA programs offered by departments of foreign languages. With this goal in mind, it sought to scrutinize the

existing scales which are employed to measure what could be regarded as the antecedents of WTC, reducing the number of items in these scales as well as refining them so that they can be included in the proposed tool.

The participants of the research project were 79 MA students majoring in English, 63 of whom were females and 17 males. On average, they were 22.8 years of age, their experience in studying English as a foreign language amounted to about 12 years, and they self-evaluated their speaking skill as 4.06 on a scale of 2 (lowest) to 5 (highest), which is typically used for assessment purposes in institutions of higher education in Poland. Although the students were enrolled in an extramural program and their classes were scheduled for every other Saturday and Sunday, their course of study mirrored those usually followed in regular programs as they were required to attend regular classes in English, divided into courses dealing with grammar, conversation and academic writing, as well as a number of content classes, such as selected issues in applied linguistics, new technologies in teaching English as a foreign language, MA and supplementary seminars, as well as monographic lectures, all of which were taught in the target language. It should also be pointed out that, as most of the participants already had jobs, either in the teaching profession or in other walks of life, they were on the one hand too busy to devote too much time to their studies but on the other highly motivated to complete them.

The tool piloted in the course of the study consisted of 104 six-point-scale items, where 1 indicated total disagreement and 6 total agreement. The statements included in the survey were derived from several scales adapted from the literature which are commonly utilized to determine the antecedents of WTC and which were translated into Polish for the purpose of the current research project. In addition, the scales were modified prior to their administration so that the items they included were more reflective of the unique context of the study, the characteristics of the age group, and the tasks performed during the practical English classes in the program. These modifications involved adjusting some of the items so that they could fit the Polish context (e.g. changing words such as *Chinese* into *Polish*) as well as changing others so that they were reflective of the specific activities and situations that the students can in fact face in the classroom (e.g., no in-front-of the class role-plays or dialogues acted out from script, more challenging tasks completed or a wider range of topics tackled, no standing in front of the class, translation never used in speaking classes, and the use of the L1 avoided). Some entirely new items were also added in some of the scales to acknowledge the fact that the Internet has become an integral part of many people's lives, that access to the target language in a foreign language context is in many cases confined to computer-mediated communication, and that contacts with foreigners are made possible by international exchange programs, such as those encouraging mobility within and outside the European Union. What is more, a decision was made to include several items concerning the provision of corrective feedback, since it was the belief of the researchers that learners' response to such feedback in terms of undertaking self-correction or their willingness to indicate inaccuracies in the output of their peers (see Pawlak, 2014, for an overview of options in oral error correction) is closely related to their level of WTC, an issue that has been blatantly neglected so



far by researchers working in this area. Despite such modifications, the scales can be said to be characterized by high content validity as they were constructed by leading experts in the field and verified in a number of empirical studies. The description of the scales included in the final questionnaire after the modifications have been introduced follows:

- *In-Class WTC* (Peng & Woodrow, 2010), which is intended to measure learners' WTC in speaking in instructional contexts and contains 14 Likert-scale items which are responded to on a six-point scale; examples of items included in the tool are as follows: "I am willing to present arguments to the rest of my class", "I am willing to take part in a discussion in a small group", or "I am willing to modify what I have said in response to an indication of an error"; the reliability of the original scale was established, with the Cronbach's alpha value of 0.88;
- *Out-of-Class WTC in FL context* (MacIntyre & Charos, 1996), which includes 12 items taken from McCroskey and Baer (1985), aiming to determine the average percentage of time, from 0 to 100 %, that the respondents would decide to engage in communication in French in different situations; French was changed to English and a six-point Likert-scale was introduced; the final scale included such items as: "I am willing to initiate communication with a foreigner met in the street", "I am willing to use CMC to address an acquaintance of mine" or "I am willing to speak to exchange students enrolled in my program", the reliability of the original scale, as measured by Cronbach's alpha, was 0.97;
- *Communication Confidence* (Woodrow, 2006; Horwitz, Horwitz, & Cope, 1986), aimed to provide a composite measure of communication anxiety in English and perceived communication competence in English; the 16 original items were reduced to 13, which had to be responded to on a six-point Likert-scale; examples of the included items are as follows: "I am willing to speak without preparation in class", "I am willing to speak informally to my English teacher during classroom activities" or "I am willing to give a short impromptu speech to my class"; the reliability of the original scales devoted to the two components was calculated as 0.84 and 0.93;
- *Learner Beliefs* (Sakui & Gaies, 1999; Peng, 2007), constructed to tap into beliefs about classroom behaviors that are assumed to encourage or hinder WTC in a second language, with responses provided on a six-point Likert-scale; the instrument contained 10 items such as: "You should try to speak English even if you know you might not speak it correctly", "Students who speak a lot in classes achieve a higher level of proficiency", or "I should be given an opportunity to correct myself when I make an error"; the reliability of the initial scale was 0.80;
- *Classroom Environment* (Fraser, Fisher, & McRobbie, 1996), aimed to provide information about teacher support, group cohesion as well as task orientation; 13 six-point Likert-scale statements were included, with examples as follows: "Tasks designed in this class are attractive", "The teacher asks questions that solicit viewpoints or opinions", or "I help other class members who are having trouble with their work"; the reliability of the original tool was estimated as 0.88;

- *International Posture* (Yashima, 2002, 2009), which was designed to determine readiness to take part in intercultural communication and includes items reflective of such factors as intergroup approach-avoidance tendency, interest in international vocation or activities, interest in foreign affairs, and having things to communicate to the world; the original seven-point Likert-scale was converted to a six-point scale; the following are examples of the 20 statements included in the tool: “I try to use every opportunity to speak to a foreigner in English, online or in reality”, “I want to work in an international organisation or company”, “I often talk about situations and events (sports events, concerts, festivals etc.) in foreign countries with my family and friends”, or “I have ideas about international issues such as sports, cultural, social, political or economic events or phenomena”; the value of Cronbach’s alpha established for the whole battery was 0.78;
- *Ideal L2 Self* (Dörnyei, 2010), intended to provide information about learners’ envisaged abilities and skills with respect to learning English; all the original six-point Likert-scale items were retained and examples thereof are as follows: “I can imagine myself living abroad and having a discussion in English”, “I can imagine myself speaking English with international friends or colleagues” or “The things I want to do in the future require me to use English”; the reliability of the scale was established for different language versions, with the values of Cronbach’s alpha, ranging from 0.78 to 0.83;
- *Ought-To L2 Self* (Dörnyei, 2010), aimed to tap into the attributes which, in the opinion of learners, should be possessed to avoid adverse consequences; as was the case above, all the original six-point Likert-scale items were retained and the following are examples of the statements used: “Learning English is necessary because people surrounding me expect me to do so”, “My parents believe that I must study English to be an educated person”, or “Studying English is important to me because other people will respect me more if I have a knowledge of English”; the reliability estimates for the scale ranged from 0.75 to 0.78, depending on the language version.

The resulting questionnaire was filled out by the participants online and their responses were subjected to quantitative analysis. This entailed: (1) determining the internal consistency reliability of the scales through calculating the values of Cronbach’s alpha, (2) computing item-total correlations for each of the scales in order to identify items which deviate from the average behavior of others and eliminate those correlating below the 0.40 level, and (3) tallying the Cronbach’s alpha values for the reduced scales. These steps allowed the researchers to devise an instrument composed of a number of modified scales that could provide a basis for further analysis, fine-tuning and refinement.

### 3.2 Results

As illustrated in Table 1, which presents the values of Cronbach's alpha before and after the elimination of inconsistent items, the internal consistency reliability of the scales included in the questionnaire administered to the participants was satisfactory, with the values ranging from 0.797 in the case of the *Ought-To L2 Self* component to 0.913 in the case of the *International Posture* scale. When the item-total correlations were computed, it turned out that only four of the scales included a total of five items in the case of which the correlation coefficients were below the set value and therefore their elimination should be considered. The items were as follows: (1) "I am willing to ask the teacher in English about words or structures s/he just used"—item 8 in *In-Class WTC* (0.359), (2) "I am willing to use English to speak to/text my Polish friend out of class (during breaks)"—item 10 in *Out-Of-Class WTC in FL Context* (0.359), (3) "I am willing to respond when the teacher asks me a question in English"—item 4 in *Communication Confidence* (0.389), (4) "Studying English is important to me because other people will respect me more if I have a knowledge of English"—item 9 in *Ought-To L2 Self* (0.366), and (5) "It will have a negative impact on my life if I don't learn English"—item 10 in *Ought-To L2 Self* (0.258).

When we compare the values of Cronbach's alpha for the four scales before and after the elimination of inconsistent items (see Table 2), it is evident that the procedure had little effect on enhancing the psycholinguistic properties of these scales. Even though the alpha values did rise in all cases, the increases were almost negligible and they amounted to 0.002 for *In-Class WTC*, 0.004 for *Out-of-Class WTC in FL Context*, 0.002 for *Communication Confidence*, and 0.012 for *Ought-To L2 Self*. These results are without doubt disappointing and can perhaps be attributed to the fact that for as many as four out of five eliminated items, the correlations in fact approached the required value of 0.40 deviating from it by no more than 0.041. They also cast doubt on the very need to exclude the less inconsistent items from the respective scales, a point that is elaborated upon in the concluding section of the paper.

**Table 2** The values of Cronbach's alpha before and after the elimination of inconsistent items

Scale	Cronbach's alpha for initial results	Cronbach's alpha with eliminated items
In-Class WTC	0.888	0.890
Out-of-Class WTC in FL context	0.863	0.867
Communication confidence	0.873	0.875
Learner beliefs	0.824	
Classroom environment	0.869	
International posture	0.913	
Ideal L2 self	0.824	
Ought-To L2 self	0.797	0.809

## 4 Discussion and Conclusions

The study reported above aimed to design a data collection instrument that could be used to examine WTC and its antecedents in the Polish educational context, particularly with respect to advanced learners, such as those majoring in English as part of BA and MA programs. This involved modifying some of the well-known scales so that they could be more reflective of this specific context and present-day educational realities, administering the questionnaire to a group of English philology students, and using their responses to establish its psychometric properties. As the analysis demonstrated, all the scales were characterized by high internal consistency reliability, with the values of Cronbach's alpha within the range of 0.797 and 0.913, which are on the whole higher than those reported for these scales in earlier studies conducted in other contexts. This indicates that the modifications introduced and the fact that the items had been translated into Polish not only did not adversely affect reliability but even enhanced it, which could be interpreted as testifying to the soundness of the changes made. On the other hand, however, the elimination of the inconsistent items (those where the results of item-total correlations were lower than 0.40) from four scales did little to further enhance the reliability of these scales since the increase in the values of Cronbach's alpha was miniscule and could be viewed as negligible (from 0.002 to 0.012). As noted above, such an outcome could be related to the fact that in the case of four out of the five excluded items, one for each of the scales, the correlation coefficients were only slightly lower than the required level. Another reason could be the initially high values of Cronbach's alpha for all the scales which left relatively little room for improvement.

In light of such findings, a crucial question arises as to whether the five less consistent items should be excluded from the relevant scales and from the final tool, as was determined prior to the study, or, perhaps, given the tiny effect of such elimination on reliability, it would be more prudent to retain them until further analyses are undertaken. On reflection, the latter option was chosen, on account of the fact that the initial scales were already characterized by very high internal consistency reliability and that the ways in which they were modified and extended were apparently right on target. In consequence, the original 104 items, divided into eight scales, were preserved in the final version of the instrument which can be found in the Appendix. Obviously, the researchers are fully cognizant that further refinement of the tool is needed, which will involve performing at least one round of exploratory factor analysis, followed perhaps by confirmatory factor analysis, because this will allow the reduction of the number of variables as well as identification of the underlying factor structure of the measures of WTC in English, communication confidence in English, motivation to learn English, learner beliefs, and context. As a result, a valid tool will become available, thanks to which it will be possible to tap all of these areas, with the resulting data yielding further insights into the role of individual learner factors in the process of foreign language learning and teaching, and, hopefully, also providing a basis for useful pedagogical implications.

## Appendix: Questionnaire

The following statements describe tasks or situations inside a speaking class and outside the classroom. Please choose the box which best describes your feelings: 1 *Not at all true about me*, 2 *Very slightly true of me*, 3 *Slightly true of me*, 4 *Moderately true of me*, 5 *Very much true of me*, 6 *Extremely true about me*.

### Part I: WTC During a Speaking Class

1. I am willing to present my arguments to the rest of my class.
2. I am willing to give a presentation in front of the class.
3. I am willing to do a role-play in a small group.
4. I am willing to do a role-play in a pair.
5. I am willing to take part in a discussion in a small group.
6. I am willing to take part in a discussion in a pair.
7. I am willing to ask the teacher in English to repeat what s/he said.
8. I am willing to ask the teacher in English about words or structures s/he just used.
9. I am willing to ask my peer in English about forms/words related to the topic.
10. I am willing to ask my peer in English about ideas/arguments related to the topic.
11. I am willing to ask my group mates in English about forms/words related to the topic.
12. I am willing to ask my group mates in English about ideas/arguments related to the topic.
13. I am willing to correct a mistake that I notice in what others are saying.
14. I am willing to modify what I have said in response to an indication of an error.

### Part II: WTC Outside the Classroom

1. I am willing to use computer mediated communication (CMC) to address an acquaintance of mine.
2. I am willing to use CMC to address a group of my acquaintances.
3. I am willing to use CMC to address my acquaintances as well as strangers.
4. I am willing to use CMC to address whoever is interested in what I want to communicate.
5. I am willing to initiate communication with a foreigner met in the street.
6. I am willing to speak to a foreigner who needs assistance (e.g., help find directions).

7. I am willing to initiate communication with a group of foreigners met in the street.
8. I am willing to speak to a group of foreigners who need assistance.
9. I am willing to speak to a foreign teacher in a private situation (e.g., in a cafeteria).
10. I am willing to use English to speak to/text my Polish friend out of class (during breaks).
11. I am willing to use English to speak to/text my Polish peers out of class.
12. I am willing to speak to exchange students enrolled in my program.

### **Part III: Communication Confidence**

1. I am willing to give an oral presentation to the rest of the class.
2. I am willing to take part in a role-play or dialogue.
3. I am willing to contribute to a class debate.
4. I am willing to respond when the teacher asks me a question in English.
5. I am willing to speak without preparation in class.
6. I am willing to speak informally to my English teacher during classroom activities.
7. I am willing to give my peer sitting next to me directions to my favourite restaurant in English.
8. I am willing to do a role-play in English at my desk, with my peer.
9. I am willing to tell my group mates in English about things I do in my free time.
10. I am willing to give a short impromptu speech to my class.
11. I am willing to correct a mistake that I notice in what others are saying.
12. I am willing to modify what I have said in response to an indication of an error.
13. I am willing to lead the discussion.

### **Part IV: Learner Beliefs**

1. You should try to speak English even if you know you might not speak it correctly.
2. Students should speak even if they are not invited by the teacher.
3. I think I learn a lot by participating in communicative activities.
4. The communicative activities designed by the teacher help me improve my English.
5. Students who speak a lot in classes achieve a higher level of proficiency.
6. Pair and small group discussions are better than whole-class debates.
7. In speaking classes everyone should speak English only.
8. Teachers should insist on the use of English only in speaking classes.

9. Learning a foreign language is learning to communicate.
10. I should be given an opportunity to correct myself when I make an error.

## **Part V: Classroom Environment**

1. Tasks designed in this class are useful.
2. Tasks designed in this class are attractive.
3. I know what I am trying to accomplish in this class.
4. Activities in this class are clearly and carefully planned.
5. Class assignments are clear so everyone knows what to do.
6. I work well with other class members.
7. I am friendly to members of this class.
8. I make friends among students in this class.
9. I help other class members who are having trouble with their work.
10. The teacher provides a timely response to students' concerns.
11. The teacher is patient in teaching.
12. The teacher smiles at the class while talking.
13. The teacher asks questions that solicit viewpoints or opinions.

## **Part VI: International Posture**

1. I want to make friends with people from abroad whom I meet in the internet or at school.
2. I try to use every opportunity to speak to a foreigner in English, online or in reality.
3. I would talk to an international student if there was one at school.
4. I would share a flat or a room with an international student.
5. I would like to participate in a volunteer activity to help foreigners living in my community.
6. I wouldn't feel uncomfortable if a foreigner moved in next door.
  1. I would rather stay in my hometown.
  2. I want to work in a foreign country.
  3. I want to work in an international organisation or company.
  4. I'm interested in an international career.
  5. Things that happen in other countries don't affect my life.
  6. I'd rather avoid the work that requires frequent travelling abroad.
1. I often read and watch news, short films, clips?? about life/events in foreign countries.
2. I often talk about situations and events (sports events, concerts, festivals etc.) in foreign countries with my family and friends.

3. I have a strong interest in what happens in other countries.
4. In the Internet, TV or papers I only look for information concerning my hometown or my country.
1. There are topics I want to present or discuss with people from other countries.
2. I sometimes feel member of an international community of people who want to share ideas and opinions.
3. I have ideas about international issues such as sports, cultural, social, political or economic events or phenomena.
4. I have no clear opinions about international issues.

## **Part VII: Ideal L2 Self**

1. I can imagine myself living abroad and having a discussion in English.
2. I can imagine myself studying in a university where all my courses are taught in English.
3. Whenever I think about my future career, I imagine myself using English.
4. I can imagine a situation where I am speaking English with foreigners.
5. I can imagine myself speaking English with international friends or colleagues.
6. I can imagine myself living abroad and using English effectively for communicating with the locals.
7. I can imagine myself speaking English as if I were a native speaker of English.
8. I imagine myself as someone who is able to speak English.
9. I can imagine myself writing English e-mails/letters/blog fluently.
10. The things I want to do in the future require me to use English.

## **Part VIII: Ought-to L2 Self**

1. I study English because close friends of mine think it is important.
2. Learning English is necessary because people surrounding me expect me to do so.
3. I consider learning English important because the people I respect think I should do it.
4. If I fail to learn English I'll be letting other people down.
5. Studying English is important to me in order to gain the approval of my peers/teachers/family/boss.
6. I have to study English, because, if I do not study it, I think my parents will be disappointed with me.
7. My parents believe that I must study English to be an educated person.
8. Studying English is important to me because an educated person is supposed to be able to speak English.



9. Studying English is important to me because other people will respect me more if I have a knowledge of English.
10. It will have a negative impact on my life if I don't learn English.

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