



## Willingness to communicate and action control

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### Abstract

Being willing to communicate is part of becoming fluent in a second language, which often is the ultimate goal of L2 learners. Julius Kuhl's theory of action control is introduced as an expansion of the conceptual framework for the study of Willingness to Communicate. Kuhl proposed three key concepts, preoccupation, volatility, and hesitation, which form part of the base from which WTC in the second language is built. In essence, we propose that a lack of WTC inside and outside the language classroom is related to tendencies for a disruption in action control. Using path analysis, we find support for the proposed model that also integrates perceived competence and communication anxiety. Implications for the trait and dynamic conceptions of WTC are discussed. © 2010 Elsevier Ltd. All rights reserved.

*Keywords:* Willingness to communicate; Action control; Preoccupation; Volatility; Hesitation; Language anxiety; Perceived competence

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Individual differences in the linguistic and non-linguistic outcomes of language learning, such as motivation, aptitude, language learning strategies, language anxiety, and others (Dörnyei, 2005), have been a key focus of second language research for over 50 years (Gardner, 2009). Recently, MacIntyre (2007) drew attention to the learner's decision to voluntarily speak the language when the opportunity arises, even as basic language skills are being acquired. Despite the emphasis on communication in modern language pedagogy and the well accepted view that learners require practice in speaking in order to learn (MacIntyre et al., 2003), some language learners habitually choose to remain silent. This paper will examine avoiding L2 communication as a function of action control (see Dörnyei, 2005). The goal of this research is to test whether the action control system, defined in terms of stable individual differences, predicts key affective reactions to language communication.

It is reasonable to think that students will act in ways that aid them in reaching future goals: engineers learn how to design and build, surgeons are taught how to operate on their patients, and chefs are taught how to prepare meals. For some students, the goal of language learning is to meet an educational requirement, for example to pass an examination, but for many others authentic communication is the ultimate goal (Alalou, 2001; MacIntyre et al., in press; Ushioda, 2001). But even if all students recognized communication as *the* overriding reason for language learning, we are not out of the motivational woods just yet. There is an unfortunate tendency for people in general, and language learners in particular, to fail to act on their intentions (see Ajzen, 2005; Fabrigar et al., 2006), such as when:

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- A student signs up for a conversation course but does not speak to their classmates.
- On a travel abroad program, students may be hesitant to speak with their host families
- Credit for classroom participation is available to students but some rarely speak in class.

In the domain of second language learning, there is a concern for students who study the language but remain reluctant to use it. Imagine a similar result in other domains: the engineer who refuses to design a bridge, the surgeon who is unwilling to enter the operating room, or the chef who sits quietly in a corner of the kitchen. According to [Crookes and Schmidt \(1991\)](#) language teachers wish to see a language student who seeks out L2 communication and is willing to communicate when the opportunities arise, whether inside or outside the classroom ([MacIntyre et al., 2001](#)). According to [Clément \(1986\)](#), seeking opportunities to communicate would greatly increase the chances for intercultural contact, L2 communication practice ([Larsen-Freeman, 2007](#)) and comprehensible input ([Krashen, 2003](#)). Why then would L2 students refuse to communicate in the second language, and habitually avoid authentic communication? In this case, we are restricting ourselves in this discussion to the type of situation that is under volitional control ([MacIntyre, 2007](#)), such as volunteering answers in class, choosing to assist an L2 speaking visitor, or seeking out an L2 conversation partner, where the decision to initiate communication can be seen as a product of the action control system (cf. [Clément et al., 2003](#)).

## 2. L2 communication

L2 communication can be conceptualized as either an activity in the here-and-now or a regular pattern of activity. With respect to the former, we might find a person who, though generally willing to communicate in the L2, keeps quiet for any of a number of reasons: she feels disinterested, distracted, anxious, bored, sad, sleepy, or is giving another person a turn. However, if this reticence is habitual, her teachers might be more concerned that she consistently refuses to communicate in the L2.

Students in L2 classrooms frequently are faced with the opportunity to speak up and outside the classroom opportunities for L2 communication may present themselves from time to time. The L2 learner's decision to initiate conversation has been likened to the notion of crossing the Rubicon ([Dörnyei, 2005](#)), an irrevocable decision that can lead to success or failure. Each communication opportunity can be viewed as a language-learner's Rubicon. For example, "Do I raise my hand to answer a question in class?" or "Do I ask for directions from an L2 speaker?" Given this opportunity, a student might have a global attitude that views speaking as a good way to practice and learn the L2, but simultaneously fear the consequences of mistakes in a specific situation ([MacIntyre, 2007](#)). [Fabrigar et al. \(2005\)](#) note that the link between global attitudes and behaviour in a specific situation may be inconsistent if the global attitude is not considered applicable to that specific situation. That is, the positive communicative attitude might exist at such a broad level that it is rendered irrelevant in the face of rising feelings of anxiety at a particular moment in time.

The consequences of the decision to avoid communication can be serious for students in language programs. In a study abroad context, [Yashima et al. \(2004\)](#) found that the frequency of communication between adolescent Japanese sojourners and their hosts in the United States contributed to satisfaction during the students' experience. For many sojourners, the goal of travel is to immerse one's self in the second language and the L2 community, yet some were relatively reluctant to do so ([Yashima and Tanaka, 2001](#)). This sort of goal is imprecisely defined at best, and [Yashima et al. \(2004\)](#) observed wide variation in the willingness of sojourners to speak with their host families.

The willingness to communicate (WTC) can be conceptualized as a readiness to speak in the L2 at a particular moment with a specific person, and as such, is the final psychological step to the initiation of L2 communication ([MacIntyre, 2007](#)). WTC can be conceptualized to reflect individual differences in a stable disposition toward communication, or vary from situation to situation, and even moment to moment ([MacIntyre et al., 1998](#); [Saint Léger and Storch, 2009](#)). Although many of the variables that interact to predict L2 communication (see [Dörnyei, 2005](#)) change with the time frame being studied, in this study we are adopting a trait-like approach, similar to McCroskey's original work with native language communication (see [McCroskey and Richmond, 1991](#)). This allows us to consider typical or long term patterns of action taken by learners, such as the Japanese sojourners in Yashima's studies. Given the concern for WTC both inside and outside the classroom (see also [Weaver, 2005](#)) we propose to examine the extent to which individual differences in learners' action control predict WTC.

### 3. Action control

The initiation of communication is, by definition, an action. In the mid-1990s, Kuhl (1994a) published Action-control theory (ACT) to account for the process of initiating action. The theory explains individual difference in action tendencies based on links to basic brain functions such as excitement and inhibition. The theory influenced Dörnyei's (2001) Process Model of motivation, but has been somewhat neglected over the years. We believe that Kuhl's theory can be very helpful in explaining the results of the decision making 'Rubicons' discussed earlier and has the added potential to link to modern research on brain-based motivation for language learning (for example, Schumann et al., 2004).

Kuhl's theory has contributed to the understanding of goal-setting and performance (Diefendorff, 2004), depression (Kuhl and Helle, 1986) and other topics (see Diefendorff et al., 2000). In developing the theory, Kuhl (1994a) made the important observation that choosing a goal, and even striving for it, does not mean that the goal will be pursued to completion, or that goal-related behaviours ever will be performed. Students who have chosen goals for L2 learning, but who hesitate to act and therefore disrupt or avoid learning can be considered state-oriented as opposed to action-oriented. Action-control theory focuses on the motivational processes that occur from the "awakening of a person's wishes prior to goal-setting" through to "the evaluative thoughts entertained after goal striving has ended" (Gollwitzer, 1990: 55).

A recent study by Parks-Stamm et al. (2007) examined action control via implementation intentions. They suggested that *if-then plans*, referred to as implementation intentions, were capable of facilitating goal attainment through two processes; by acting on the activation of expected situational cues (if-process) or automating the reaction to that cue as directed by the goal (then-process). The study found that those who use implementation intentions increase their likelihood of goal attainment. In the L2 domain, if a learner makes use of deliberate strategies that control actions, such as *if-then plans*, they will be more likely to succeed in reaching their goal of learning the second language than will those who are simply focusing on the goal itself.

In order to explore this possibility, we will focus on the relationship between WTC and action control, using Kuhl's (1994b) Action Control Scale (ACS-90). The following three subscales make up the ACS-90: Hesitation, Preoccupation and Volatility. The first subscale, Hesitation, involves the inability to translate decisions into action. It is at this time that people can vacillate between continuing their current behaviour and following through on the decision to initiate a new action. Hesitation seems likely to predict WTC given that both involve the initiation of action.

The second subscale is Preoccupation, which measures the extent to which intrusive and enduring thoughts cause a person to fail to initiate or change behaviour. Kuhl (1994a) notes that people are most likely to become preoccupied if the action needed to fulfill the intention is ill-defined. The focus on past or future state reduces the individual's availability to engage in other necessary cognitive activities needed to engage with an action such as speaking. In this case, ruminating on these unpleasant experiences, or focusing on the possibility of repeating them, may cause the L2 learner to fail to initiate communication when given the opportunity.

The final scale of the ACS-90 is Volatility, which assesses the ability to stay within self-initiated and pleasant activities without shifting prematurely to alternative ones. Volatility represents an inability to stay focused on a topic, whereas its action-oriented pole, *persistence*, refers to the ability to continue with the task until it has been completed. In contrast with the tendency for action-oriented people to persevere with a commitment until it is complete, state-oriented persons may abandon pleasant activities in favour of novel ones simply to satisfy a desire for change. A student who is unable to stay focused on communicating in the L2, even if he or she finds it pleasant, would likely not learn the language as quickly or as well as they might expect. For this reason, we suspect that Volatility, the inability to complete a task, may be related to WTC, especially in classroom situations.

Kuhl's (1994a) theory involves the ability to begin a task (hesitation), to focus on it (preoccupation) and to follow the task through to completion (volatility) (Jamarillo et al., 2007; Diefendorff et al., 2000; Kuhl, 1994a). The basis of action control lies in the activity of the brain. In a more accessible discussion of the related processes, Gray (1994) introduced the terms Behavioural Activation System and the Behavioural Inhibition System to describe brain activity that facilitates or inhibits action (Gray and McNaughton, 2000). BIS/BAS theory concentrates on the stable, trait-like tendency to approach or avoid a goal. On the one hand, the BAS system responds to reward and encourages approaching goals that lead to these outcomes. On the other hand, the BIS leads the actor to avoid goals that lead to pain or punishment. Sutton and Davidson (1997) have linked BIS/BAS systems to prefrontal lobe asymmetry, supporting the idea that the approach or avoidance of a goal is trait oriented, that is, it reflects stable individual

differences, similar to personality traits (Smits and Boeck, 2006). These individual differences may be implicated in a variety of self-regulation processes (Amodio et al., 2008), i.e. volitional actions (MacIntyre, 2007). Students who habitually avoid L2 communication may have an active BIS system that inhibits behaviour. For example, interacting in the second language might generate the appraisal that potential errors or embarrassment (punishment) are too great to risk taking action. If this is the case, action will be inhibited even in the presence of strong motivation or intention to act. The resulting affective state might be considered ambivalent (MacIntyre et al., *in press*); conflicted between being motivated but unwilling to speak.

#### 4. The current study

The present study was undertaken to examine the links of the three action control variables with perceived competence, language anxiety, and WTC inside and outside the classroom. To study the relations among these variables, we will employ a path analysis procedure. The model to be tested is shown in Fig. 1.

We propose that the action control scales hesitation and preoccupation will be associated with both higher language anxiety and lower perceived competence. Hesitation involves the inability to move into action after making a decision. Previous research has shown that hesitation produces moderate correlations with negative emotional reactivity (Klinger and Murphy, 1994), which leads us to expect a connection between hesitation and language anxiety. Apprehensive speakers have been shown to recall less information and have more negative, task irrelevant thoughts (Kuhl, 1994b). Therefore, we expect that people who hesitate may forgo opportunities to use or practice their French skills. As a result, we propose that those high in hesitation will have less perceived competence speaking in French and more anxiety because of fewer successful learning experiences. Preoccupation is the tendency for intrusive and enduring thoughts to flood a person's mind after a failure. Rumination has been described as a characteristic of a state of preoccupation as well as a state of anxiety. As a person ruminates over perceived failures, we would expect them to experience both lower perceived competence and higher anxiety. In validation studies of the ACS-90, Kuhl (1994b) reports a significant correlation between preoccupation and hesitation, and we will reflect this correlation in our proposed model. Finally, volatility reflects the tendency to abandon an ongoing task in favour of another, alternative task. On the one hand, persistence (the opposite of volatility), seems likely to contribute to the willingness to communicate, especially in ongoing or long-running situations (such as a language course). On the other hand, abandoning communication tasks before they are complete is likely to strain communication. Therefore, volatility is expected to lead directly to lower WTC both inside and outside the classroom.

To complete the model, we propose relationships among the communication variables as well. Drawing on previous path models (MacIntyre and Charos, 1996; MacIntyre, 1994) we expect that anxiety while speaking in French will be associated with lowered perceived competence in French, and that these variables influence WTC in French, both inside and outside the classroom. Finally, we expect WTC inside the classroom to predict WTC outside the classroom.

#### 5. Method

##### 5.1. Participants

Two hundred and thirty-eight high school students in grades 10, 11 and 12 participated in the study. There were 94 males and 139 females (five did not indicate their sex). The ages of the students range from 14 years to 18 years

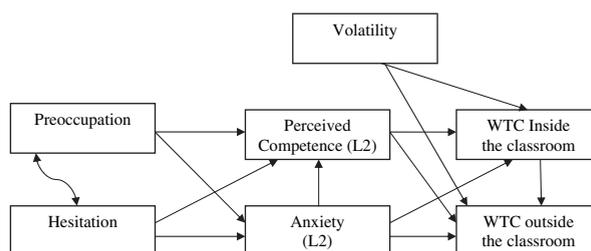


Fig. 1. Base model.

(five did not indicate their age) and the average age was 16.4 years. Ninety-seven percent (97%) of students spoke English as their first language and had a mean of 5.7 years experience studying French. The school is located on the east coast of Canada, in Nova Scotia, where over 92% of the population of the province list English as their mother tongue (Nova Scotia Community Counts, 2009).

## 5.2. Materials

### 5.2.1. Action control scale (Kuhl, 1994b)

This measure consists of three subscales. Each scale consists of 12 dichotomous, forced-choice items, which describe a particular situation. The items were presented in mixed random order. The subscales include:

#### 5.2.2. Preoccupation (failure-related action orientation) ( $\alpha = .70$ )

The 12 items in this subscale describe situations in which thoughts concerning unpleasant experiences interfere with one's behaviour-changing ability. The sum of the answers ranges from 0 to 12. For example, "When I'm in a competition and have lost every time: (a) I can soon put losing out of my mind, (b) the thought that I lost keeps running through my mind."

#### 5.2.3. Hesitation (decision-related action orientation) ( $\alpha = .74$ )

The 12 items in this subscale describe difficulties associated with initiating an intended activity without referring to ruminating thoughts due to state orientation. The sum of the answers ranges from 0 to 12. For example, "When I know I must finish something soon: (a) I have to push myself to get started, (b) I find it easy to get it done and over with."

#### 5.2.4. Volatility (performance-related action orientation) ( $\alpha = .60$ )

The 12 items in this subscale describe one's ability to continue pleasant activities without a sudden shift to alternative activities. The sum of answers ranges from 0 to 12. For example, "When I have learned a new and interesting game: (a) I quickly get tired of it and do something else, (b) I can really get into it for a long time."

## 5.3. Communication measures

### 5.3.1. Perceived communication competence (McCroskey and McCroskey, 1988)

Twelve items assessed the average percentage of time – ranging from 0% to 100% – that students felt competent in using French ( $\alpha = .98$ ) and English ( $\alpha = .94$ ) to speak in 12 situations, for example, "Talk in a small group of friends."

### 5.3.2. Anxiety (McCroskey et al., 1987)

Twelve items, taken from a scale assessing communication apprehension, assessed the average percentage of nervousness – ranging from 0% to 100% – that the students felt in communicating in French ( $\alpha = .97$ ) and English ( $\alpha = .94$ ) in 12 situations, for example, "When presenting a talk to a group of strangers."

### 5.3.3. Trait-like willingness to communicate (McCroskey and Baer, 1985)

Twenty items assessed the average percentage of time – ranging from 0% to 100% – that students would choose to communicate in French ( $\alpha = .98$ ) and English ( $\alpha = .95$ ) in a variety of situations, for example, "Talk in a large meeting of friends." In addition to the 12 speaking contexts noted in item number 1 above, 8 "filler" items were also included, for example, "Talk with a secretary."

### 5.3.4. Willingness to communicate inside and outside the classroom (MacIntyre et al., 2001)

Eight items assessed the percentage of time a respondent would be willing to communicate in French, inside the classroom ( $\alpha = .94$ ). An example item is "Speaking in a group about your summer vacation." The same eight items were presented with respect to speaking French outside the classroom ( $\alpha = .92$ ).

### 5.3.5. Perceived competence inside and outside the classroom

Five items assessed the perceived competence in performing French tasks both inside ( $\alpha = .94$ ) and outside ( $\alpha = .94$ ) the classroom (as in #7 above, the same items were used with reference to both contexts). An example item is “Take directions from a French speaker.”

### 5.4. Procedure

The local school board and principal of the school were contacted and permission to conduct testing was obtained. Informed consent was obtained from the students for their voluntary, anonymous participation. Classrooms were visited by research assistants who administered the questionnaires according to the schedule set by the school. Testing took approximately 45 min.

## 6. Results

### 6.1. Correlations

The communication variables showed the expected pattern of correlation (see Table 1). All three measures of WTC were significantly intercorrelated and all correlated positively with perceived communication competence and negatively with anxiety about speaking French (L2). In addition, the three measures of French perceived competence were positively intercorrelated and all were negatively correlated with French language anxiety. Furthermore, the L1 (English) measure of WTC was positively associated with L1 perceived competence and negatively correlated with anxiety. Across languages (English and French) the trait-level measures of both WTC and perceived competence were significantly correlated, but the measures of anxiety were not.

The scales of the ACS-90, hesitation, preoccupation and volatility, also showed the expected pattern of intercorrelation. The only significant correlation among the three ACT scales was between preoccupation and hesitation ( $r = .34, p < .01$ ), replicating Kuhl's (1994b) findings.

### 6.2. Path analysis results

We subjected the covariance matrix (see Table 2) to a path analysis using AMOS 7. An excellent fit between the model shown in Fig. 1 and the data was obtained, according to several goodness of fit criteria (see Arbuckle, 2006). The chi-square test was not significant, which indicates that no substantial new paths are necessary. The chi-square divided by degrees of freedom produced a ratio below 1.7 which is indicative of an adequate fit between our model and the sample data. The Root Mean Square Error of Approximation (RMSEA) was below .05 which is ideal (Browne and Cudeck, 1993). Finally, all of the remaining fit indices suggest a very close fit (values  $> .90$ ).

Having satisfied a need for confidence in the overall goodness of fit between our model and the sample data, we examined the critical ratios, which test the significance of the standardized regression weights of each of the paths in the model. We found three non-significant paths: from volatility to WTC outside the classroom, anxiety to WTC

Table 1  
Correlations among communication variables.

	1	2	3	4	5	6	7	8	9
1. WTC French									
2. WTC in class	.71*								
3. WTC outside	.71*	.81*							
4. PC French	.72*	.81*	.71*						
5. PC In class	.68*	.88*	.76*	.80*					
6. PC Outside	.70*	.80*	.83*	.78*	.89*				
7. Anxiety-French	-.55*	-.54*	-.46*	-.56*	-.52*	-.48*			
8. WTC English	.29*	.13	.16	.22*	.09	.12	-.03		
9. PC English	.22*	.09	.13	.24*	.13	.17*	-.11	.48*	
10. Anxiety-English	-.10	-.13	-.10	-.13	.00	-.05	.04	-.25*	-.28*

\*  $p < .05$ .

Table 2  
Estimates of means, variances, covariances, and correlations for the path analysis.

	Mean	Hesitation	Preoccupation	Anxiety	Volatility	Perceived competence	WTC inside classroom	WTC outside classroom
Hesitation	17.502	(8.335)	.342	.286	.085	-.238	-.302	-.213
Preoccupation	17.416	2.708	(7.535)	.050	-.011	.049	.016	.045
Anxiety	4.797	27.789	4.611	(113.988)	.115	-.563	-.544	-.462
Volatility	16.044	.490	-.058	7.763	(4.018)	-.139	-.196	-.182
Perceived competence	5.432	0	4.801	-67.670	-9.865	(1252.977)	.813	.715
WTC inside classroom	52.061	-27.955	1.371	-586.302	-12.584	922.081	(1025.519)	.812
WTC outside classroom	36.061	-18.092	3.645	-456.847	-1.741	744.585	765.586	(866.391)

Note: The variances (in brackets) appear on the diagonal, covariances appear in the lower off-diagonal, correlations appear in the upper off-diagonal.

outside the classroom, and from preoccupation to anxiety. Each of these paths was removed from the model, one at a time, and fit was re-evaluated (See Table 3). At each step, the lowest non-significant path was removed until all remaining paths were significant. It should be noted that no other path coefficient became non-significant during the modification process, and none of the three non-significant paths reached significance at any point. The fit of the final model also is presented in Table 3.

Examining the paths that are shown in the model, from right to left in Fig. 2, we see that WTC in class is predicted by three variables, and WTC outside class by two variables. WTC outside class is best predicted by WTC in class, though there is also a direct path from perceived competence. This suggests that the development of competence, and more importantly a willingness to speak in the classroom, predicts language usage outside the classroom. This helps to affirm the key role of classroom-based communication as preparation for language use beyond the school grounds. WTC in class shows a negative path from language anxiety and a strong, positive path from perceived competence. Both of these paths replicate prior results. The third predictor, volatility, shows a negative path to WTC in the classroom. This indicates that there is a tendency for people who often experience volatility to speak less in class, or on the opposite side of the coin, those who usually engage in tasks with persistence are more willing to speak in classroom-style communication activities. This result provides evidence of the engagement of the action control system during classroom communication.

The hub of the model is the relationship between language anxiety and perceived communication competence. As in previous research (MacIntyre, 2007), the two variables are highly, negatively correlated. Those who are more anxious about speaking the L2 are likely to have an overly negative, biased view of their competence. Note that this is not the same as actual or objectively assessed competence. Even there, the role of anxiety can be to reduce test scores that would be used to assess actual competence. It is certainly plausible that questioning one's competence can generate anxiety-arousal. However, path models with reciprocal paths among endogenous variables are often problematic because of difficulty with model specification. In this particular case, proposing a reciprocal path between language anxiety and perceived competence caused both paths to be rendered non-significant, in spite of the high correlation between the variables. Therefore, in keeping with the goals of this study, it seems more reasonable to propose that trait-like language anxiety negatively biases the overall perception of competence (see MacIntyre et al., 1997).

In terms of action control, the data support the notion that "he who hesitates is lost" in language learning. Hesitation is associated with both higher levels of language anxiety and lower perceptions of communication competence. Given the pace at which conversation occurs, and the exquisite timing of conversational turns, hesitating even for 1 or 2 s can

Table 3  
Goodness of fit for path analysis model.

	$\chi^2$ (n.s.)	df	RFI	CFI	RMSEA	$\chi^2/df$
Base model	13.1	8	.990	.999	.053	1.64
<i>Remove</i>						
Volatility → WTC outside	13.1	9	.991	.999	.044	1.46
Anxiety → WTC outside	13.6	10	.991	.999	.039	1.36
Preoccupation → Anxiety	14.3	11	.992	.999	.035	1.29
Final model	14.3	11	.992	.999	.035	1.29

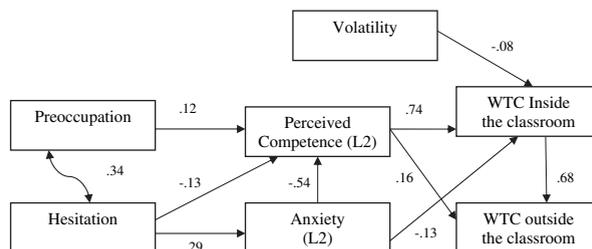


Fig. 2. Final model.

have a profound impact on conversational fluency. As experiences with hesitation and feelings of anxiety accumulate over time, the patterns reflected in this analysis solidify into stable expectations for L2 communication experiences.

Both perceived competence and WTC showed negative correlations with language anxiety, and WTC correlated positively with competence. Our path analysis model revealed that anxiety had a negative path leading both to perceived competence and WTC in the French classroom. Moreover, perceived competence had a positive effect on WTC, both inside and outside the classroom.

One of our research questions was to test whether the three action control variables correlated with the three communication variables. In examining the correlation coefficients we found that WTC and perceived L2 competence correlated consistently with both Hesitation and Volatility, and that anxiety correlated with Hesitation. In the path analysis, Hesitation was found to be an antecedent of language anxiety ( $\beta = .29$ ), as well as a predictor of lower perceived competence speaking in French ( $\beta = -.13$ ). If students feel reluctant to act in a situation where speaking French is required, they will likely feel more anxious, have fewer L2 experiences, and feel less competent because of less practice.

Preoccupation was an anomaly, in that it did not correlate significantly with any communication variables, but was a predictor of higher perceived competence with French in the path analysis ( $\beta = .12$ ) which is the reverse of our expectations. We would expect that ruminating on past failures would result in a person feeling less (not more) competent, but the data did not support this.

## 7. Discussion

Our hypotheses regarding WTC and its antecedents were confirmed, and correlations followed the expected pattern. These data support past results linking perceived competence, language anxiety and WTC (MacIntyre et al., 2003; Yashima et al., 2004). The ACT variables also correlated in the anticipated fashion, which supported Kuhl's (1994a) original data. The closeness of the conceptual relationships among the communication variables, coupled with the similar measurement strategy, indicate that one should expect to replicate the well established relationships (correlations around .50).

The theory of action control represents a new avenue of investigation into Willingness to Communicate research and the L2 learner's decision to initiate communication. Hesitation represents the portion of the action control system that initiates action, after a decision has been made. Similarly, WTC has been described as the final step to initiation of communication (MacIntyre, 2007). Yashima et al.'s (2004) study described adolescent sojourners from Japan who undertook a journey to America, presumably to be immersed in an English-speaking culture. However, these students differed widely in their decisions to initiate L2 communication. The sojourners may have made the decision to communicate with their host families prior to leaving Japan; yet, many were unable to turn this decision into action upon arriving in the United States. Our path analysis suggests that these unwilling students may fall on the state-oriented side of the action-state continuum, and are therefore high in hesitation, which contributed to their lower perceived competence as well as their heightened language anxiety. Future research should further explore this connection between communication and action control, particularly the measure of hesitation.

In considering how to deal with tendencies toward hesitation among language learners, both language teachers and future researchers might wish to draw on the work of Parks-Stamm et al. (2007) on implementation intentions, as applied to WTC. The use of implementation intentions or *if-then plans* is shown to increase the likelihood of goal attainment in laboratory research and the authors suggest broadening the scope of this research to include real life

situations, such as L2 communication. WTC is a necessary part of becoming fluent in a second language, which is the ultimate goal of many L2 learners. By making use of implementation intentions, learners might become better able to identify situational cues that provide them with the opportunity to communicate in their second language and might also be able to identify their hesitations. Although the source of the hesitation likely will vary from one situation to the next, the effect of hesitation on communication would be quite consistent. By planning methods of dealing with hesitation or volatility tendencies, in advance as much as possible, learners may be better able to react quickly to take advantage of L2 communication opportunities. This approach may promote increased security, a potential antecedent to higher WTC (Kang, 2005).

Preoccupation was, contrary to our expectations, a predictor of higher perceived competence with French. MacIntyre et al. (1998) note that high perceived competence is experienced when the communicator has both the knowledge and skills to communicate effectively, and when they are communicating in a situation that has been previously encountered. The results of our study suggest that focusing on the past actually boosts the students' perceptions of competence in that language. MacIntyre et al. (1998) suggest that perceived competence will drop if the L2 communicator is uncertain about their abilities in relation to the demands of the communication task. If our students recognized that they had previously encountered a certain L2 situation, and focused on that situation, they may have been able to assess their abilities, and in turn, boost their perceived competence. It is also possible that focusing on unpleasant past events may serve as motivation to excel in the future. Baker and MacIntyre (2000) note that many students, when reporting a negative past experience, described such an event as an opportunity to learn. The students claimed that these experiences made them even more determined to learn French and communicate clearly. Kang (2005) also notes that a sense of responsibility can be accompanied by "a feeling of pressure to deliver and understand a certain message" (p. 285), as an antecedent to higher WTC. Future research may attempt to explore this issue by having students recall a particular communication experience (negative or positive) before reporting WTC, to explore the effects of such recall on communication variables.

Volatility was linked directly to WTC in the classroom, and indirectly to WTC outside the classroom. It makes sense to think that the tendency to abandon tasks, represented by volatility, would lead to lower WTC over the long run. The students in the present research were studying French-as-a-second language in a classroom context. Within this setting a number of communication exercises are undertaken by teachers and their students. The connection with WTC likely reflects students with higher levels of volatility preferring to abandon ongoing tasks, for the sake of change, and students with lower levels of volatility showing greater persistence and willingness to complete tasks. In past research, WTC was considered an enduring, trait-like disposition (MacIntyre et al., 1998; also see Burgoon, 1976; McCroskey and Baer, 1985). More recently, however, WTC has been recognized as being dynamic, having both transient and enduring characteristics (Cao and Philip, 2006; Kang, 2005; MacIntyre, 2007). Whereas the components of action control are enduring and trait-like, it is important to acknowledge that the effects of hesitation, preoccupation and volatility *in situ* may be influenced by situational variables. As Cao and Philip (2006, p. 489) note, "...WTC may be strengthened or weakened according to factors associated with the specific situation, related to topic, interlocutor and the confidence of the learner relative to the task." It is best to consider the state-dependent and dynamic fluctuations of WTC as a topic that is complementary to (rather than in opposition to) the stable trait-like tendencies that are being investigated in the present study. In a sense they are two sides of the same coin, and both are interesting research questions in their own right. Choosing to study stability versus change in behaviour, or attributing outcomes to the person versus the situation, are indeed false dichotomies (Funder, 2006).

Finally, an additional word of caution is in order with respect to the interpretation of the path model, specifically the values of the regression coefficients. Path analysis is a technique built on multiple regression. One of the features of multiple regression that can prove problematic for interpretation is that path/regression coefficients often change with the addition or deletion of other paths. The specification of the model depends on the variables included in the study. Introducing other variables (for example shyness or cultural distance) into the model might alter the path coefficients, depending on the paths proposed in a future, revised model. Adding other variables to a correlation matrix, however, will not alter the correlations already in the matrix. Therefore, a complete interpretation of the path model should also consider the correlations. It likely is best not to interpret the path coefficients themselves, but to consider the quality of the model as a whole. For example, in our data Hesitation correlates significantly with WTC inside the classroom ( $-.30$ ) but the path analysis does not show a direct relationship. In this case, our interpretation is that Hesitation influences WTC inside the classroom indirectly, via anxiety and perceived competence, and this sequence of relationships is responsible for the correlation observed between Hesitation and WTC.

Whereas this study has explored the relationship of Action-control theory to the stable attributes of WTC, future research should attempt to determine how action-control theory applies to the dynamic processes at work during L2 communication. The stable patterns of relationships among learners' individual difference variables might be used as a base from which to describe how dynamic changes play out from moment to moment as learners interact with teachers, peers, and members of other language groups. Our understanding of second language learning and communication will be enhanced by research that considers both sides of the stability/dynamics coin.

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