Background

Pragmatics, a field of linguistics, is a study of linguistic forms, how they are used, and what meanings they create in a social context. Crystal (1997) defines pragmatics as “the study of language from the point of view of users, especially of the choices they make, the constraints they encounter in using language in social interaction and the effects their use of language has on other participants in the act of communication” (p. 301). This definition underscores the relations between linguistic forms and users of the forms, while highlighting users’ agency in their linguistic choice-making and consequences in social interaction.

Learning pragmatics involves mastering a complex interplay among linguistic forms, context of use, and social actions. Given this complexity, pragmatics learning is influenced by a range of individual traits and characteristics at multiple levels—linguistic, cognitive, and personal. To become pragmatically competent, learners need not only knowledge of grammar and vocabulary but also abilities to use that knowledge in real time. To this end, pragmatic competence is supported by general language proficiency and cognitive capacities (e.g., working memory and attention). However, the socially grounded nature of pragmatics indicates that pragmatic competence is also mediated by personal factors. Personalities, interactional preferences, identity, and beliefs about formality or politeness affect pragmatic performance. Hence, the relationship between pragmatic competence and learner characteristics is understood through these multiple considerations.

This chapter surveys the current practice of quantitative research that explored the relationship between learner characteristics and pragmatic competence. The goal of this chapter is two-fold: 1) to describe and critically analyze methodological practices existing in the given research domain; and 2) to examine the relationship between one learner characteristic (i.e., proficiency) and pragmatic competence, and factors mediating the relationship. In the next section, the current views of pragmatic competence in relation to learner characteristics are presented. Then, research questions and methods of research synthesis are explained. Finally, findings are presented, and the chapter concludes with practical implications and future directions.

Theoretical Constructs of Pragmatic Competence: A Multidimensional View

The field of second language pragmatics (hereafter L2 pragmatics) started to grow rapidly in the early 1990s under the paradigm of *interlanguage pragmatics*, which was defined by Kasper and Dahl (1991) as a study of “nonnative speakers’ (NNSs’) comprehension and production of speech acts,
and how their L2-related speech act knowledge is acquired” (p. 216). After this definition came to the field, a large body of research has substantially expanded the scope of investigation beyond the production, comprehension, and development of speech acts. Currently, the field is characterized as a multidimensional, interdisciplinary investigation into L2 learners’ ability to communicate in a variety of social situations (Taguchi, 2019). Areas of investigation are diverse, ranging from pre-established linguistic units such as speech acts, implicatures, routines, speech styles, and interactional-discoursal features (e.g., stance markers and hedging), to poststructuralist inquiries of identity and agency in learners’ dynamic meaning-making process (for a review, see Taguchi, 2019; Taguchi & Roever, 2017).

These diverse areas of investigation reflect multiple views of pragmatic competence existing in the field. Some scholars view pragmatic competence as a constellation of linguistic and sociocultural knowledge that guides linguistic choices in a given context. This view is illustrated in Thomas’ (1983) classic definition of pragmatic knowledge consisting of two dimensions: pragmalinguistics and sociopragmatics. The former involves the knowledge of linguistic resources for performing a communicative function, while the latter involves knowledge of social norms and conventions in a community. For example, when performing the communicative function of a greeting, we use a variety of pragmalinguistic forms (e.g., “How are you?”,”What’s up?”). We also use sociopragmatic knowledge of which forms to use to greet whom in what context. Hence, knowledge of pragmalinguistics and sociopragmatics together gives us the ability to perform a communicative function appropriately in a social context.

Other scholars view pragmatic competence as dynamic and emergent in ongoing discourse rather than a fixed set of knowledge. Under the frameworks of discursive pragmatics (Kasper, 2006) and interactional competence (Young, 2011), pragmatic competence is no longer viewed as knowledge of pragmalinguistics and sociopragmatics alone; instead, it is viewed as the ability to use the knowledge in a flexible, adaptive manner corresponding to the changing course of interaction. For example, when we greet someone we just met, we might use formal, ritualistic expressions, like “Nice to meet you”, to display formality and social distance. However, social distance often changes as our conversation unfolds. As we find more mutual interests and common ground, we develop more solidarity, adopting a more informal speech style. Hence, another important aspect of pragmatic competence is interactional ability—the skill to navigate the dynamic course of interaction by adapting our linguistic resources to the changing context.

More recent scholars have embraced the emic perspective more explicitly in their conceptualization of pragmatic competence. Particularly notable is the role of agency and subjectivity in learners’ pragmatics choice-making. Agency is defined as a self-reliant capacity that works with volition to bring about an effect on one’s behavior (LoCastro, 2003). Learners are viewed as active agents who make their own linguistic choices and create social positions for themselves. For example, whether to address a professor by title or by first name is essentially the learner’s own choice. The decision is guided by the type of social self they want to present—how distant or open they want to sound to the other in a situation. Learners draw on their beliefs and values in their linguistic choices, even when their choices go against local norms. More recently, Larsen-Freeman (2019) underscored the dynamic nature of agency, emphasizing that agency is shaped by the affordances in the context. Learners’ agentive capacity develops in relation to the world and others in the world.

In summary, pragmatic competence is a multidimensional construct involving multiple layers of knowledge, skill, and capacity (Taguchi, 2019). Knowing the normative form-function-context relationships and adapting the knowledge to interaction-in-progress are both part of pragmatic competence, but deciding whether or not to actually use the knowledge is part of learner agency and the decision is shaped in context. These multiple views inevitably add complexity to research. Different epistemologies are translated into different methods, leading to different understandings of L2 pragmatics phenomena under study. Yet, the diverse understandings essentially become a collective force, advancing our knowledge of what pragmatic competence means, how it develops,
and what factors—both at individual and contextual levels—contribute to the development. The next section presents different research paradigms exploring the intersect between pragmatic competence and learner characteristics.

**Pragmatic Competence and Individual Learner Characteristics**

Dörnyei (2005) defines individual learner characteristics as “dimensions of enduring personal characteristics that are assumed to apply to everybody and on which people differ by degree” (p. 4). Because L2 learners exhibit wide variation in the pace and ultimate success in their learning, researchers have explored individual characteristics that can differentiate between more and less successful learners. This effort, in turn, has made learner characteristics “one of the most thoroughly studied psychological aspect[s] of SLA” (Dörnyei, 2005, p. 6; see also MacIntyre et al., 2016).

As an area of SLA, L2 pragmatics has contributed to this long-term interest with a goal of clarifying the role of learner characteristics in pragmatic competence and development. The current literature has diverged into two lines of investigation (for a review, see Taguchi & Roever, 2017; Takahashi, 2019). One is a group of quantitative studies that treat learner characteristics as stable and discrete variables that can be operationalized and measured using experimental instruments. A range of individual factors have been examined under this paradigm, including proficiency, motivation, aptitude, working memory, and personality (e.g., Taguchi, 2008b; Youn, 2014). Researchers have measured these factors in a group of learners to explore descriptive and predictive relationships between learners’ characteristics and their pragmatic competence. Using statistical methods such as correlation, ANOVA, and regression, researchers have uncovered the extent to which individual characteristics can explain the variation in learners’ process and outcome of pragmatics learning.

Another group of studies has taken a qualitative approach, focusing on individual learners situated in their contexts of learning (e.g., Brown, 2013; Gonzales, 2013). Under this approach, learner characteristics are no longer viewed as stable, distinct variables separate from situational parameters; rather, they are viewed as evolving in flux as learners interact with systems in their immediate contexts. For example, learners’ motivation can shift from time to time corresponding to their situational experiences (e.g., availability of opportunities to interact with target language speakers). Using qualitative data (interviews, observations, and recordings of naturalistic interactions), researchers have presented a situated analysis of individual characteristics in social, historical, and cultural contexts where pragmatics learning takes place (but see Dörnyei et al., 2015, for quantitative methods to study individual factors in flux in context).

These two approaches advocate different ways of conceptualizing and studying individual characteristics. Although the differences are fundamental, as Taguchi and Roever (2017) contend, research findings coming from these approaches are complementary rather than competing and jointly illustrate the role of learner characteristics in pragmatics learning. Different approaches and methods are particularly necessary when we consider the multidimensional view of pragmatic competence. Different conceptualizations of pragmatic competence existing in the field imply that there is no single individual characteristic that can entirely explain pragmatic competence. Rather, different learner characteristics are likely to explain different dimensions of pragmatic competence. Adopting methods of systematic research synthesis, this chapter surveys the current empirical practice investigating the complex intersection between individual characteristics and aspects of pragmatic competence.

**Research Synthesis**

Focusing on quantitative studies published from the 1980s to 2019, this chapter describes the current research practice and findings in the domain of learner characteristics in L2 pragmatics.
In addition to a broad survey of the given domain, the chapter presents an analysis of the overall effects of one learner characteristic (i.e., proficiency) on pragmatic competence, as well as factors moderating the effects. The investigations are guided by the following research questions:

1. What are the features of the studies investigating the relationship between individual difference factors and pragmatic competence in terms of their volume, range, and methods?
2. What trends in the study findings can be obtained on the role of individual difference factors in pragmatic competence?
3. What is the magnitude of the relationship between pragmatic competence and proficiency as an individual difference factor?

To answer these questions, we conducted two types of research synthesis: a scoping review and a small-scale meta-analysis.

The first research question was addressed with a scoping review. A scoping review aims to “map the existing literature in the field of interest in terms of the volume, nature, and characteristics of the primary research” (Pham et al., 2014, p. 371). Scoping reviews follow methods of systematic research synthesis, including literature retrieval and application of inclusion criteria, coding of study reports, and analysis of study features. However, unlike a meta-analysis, the focus of a scoping review is “not necessarily in synthesizing findings within our target domain but, rather on describing the terrain that has been covered to date” (Gurzynski-Weiss & Plonsky, 2018, p. 311). A synthesis of existing findings was addressed more directly by the second research question.

In addition to a scoping review, we conducted a small-scale meta-analysis by analyzing studies focusing on proficiency as a learner characteristic. We selected proficiency because our scoping review revealed that this was the only learner factor that had a sufficient number of qualified studies. Although proficiency has often been outside of the common list of individual difference factors, Dörnyei (2009) claimed that proficiency (or learners’ linguistic knowledge such as grammar and vocabulary) is largely equivalent to general intelligence and thus should be considered as an individual factor.

Proficiency may represent a portion of pragmatic competence but not all. In fact, Xiao’s (2015) synthesis review of 28 studies found that less than half of the studies revealed a positive effect of proficiency on pragmatic competence. Other studies found no relationship between proficiency and pragmatic competence or only a partial relationship. Since advanced grammatical competence does not automatically lead to skilled pragmatic performance (Kasper & Rose, 2002; Taguchi & Roever, 2017; see also empirical data in Taguchi, 2012), it is important to examine the precise impact of proficiency on pragmatic competence using a meta-analysis.

Methods
Retrieval of Studies and Inclusion/Exclusion Criteria

In order to locate all quantitative studies that investigated the relationship between pragmatic competence and learner characteristics, we conducted a principled and exhaustive literature search. Our search included both published and unpublished studies (e.g., dissertations and conference papers/proceedings) to mitigate the problem of publication bias (Chow & Ekholm, 2018). Our search criteria were set broadly to avoid missing any relevant studies. To be included in the sample, a study had to:

1) Investigate the relationship between one or more learner characteristics and pragmatic competence
2) Use a quantitative approach

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After these criteria were established, several search techniques were applied to identify primary studies. First, major electronic databases in linguistics, psychology, and education were screened for relevant studies. These databases included ProQuest databases, DOAJ (Directory of Open Access Journals), Cambridge Core, ResearchGate, ScienceDirect Journals, JSTOR Arts and Sciences, SAGE Journals Premier, and Wiley Online Library Database. Additionally, two search engines (Google and Google Scholar) were used to locate relevant studies. The search words included combinations of terms relevant to SLA (e.g., second language and L2), learner characteristics (e.g., individual differences, motivation, aptitude, and proficiency), and pragmatic competence (e.g., pragmatic comprehension, pragmatic production, and pragmalinguistic competence). Furthermore, to identify more studies, we examined references of existing review papers and meta-analyses (Taguchi & Roever, 2017; Taguchi, 2019; Xiao, 2015) and used the ancestry search. As a final step, web pages of prominent scholars in L2 pragmatics were surveyed.

The search process yielded 156 papers, some of which were manually excluded due to being scale validation studies (Li et al., 2019), position/review papers (e.g., Ifantidou & Matsui, 2013), and qualitative studies (e.g., Dippold, 2011). This process produced a refined sample of 96 primary studies published between 1987 and 2019. Full references of these studies are available on the IRIS database (Marsden et al., 2016). See https://www.iris-database.org/iris/app/home/detail?id=york:938982

**Coding Procedure**

A coding scheme was developed to systematically examine the methodological choices and results presented in the 96 primary studies. The coding scheme included seven groups of features: study identification (e.g., author, year, and document type), study context (e.g., second vs. foreign language context and lab vs. classroom), target language, sampling (e.g., participant information and sampling method), data collection (e.g., target features examined, instruments, and assessment tasks), statistical analyses employed, as well as reporting practices (e.g., reliability estimates, effect sizes, and confidence intervals). Where applicable, the features were coded categorically; for example, 1 indicated the presence of a feature, whereas 0 meant that the feature was absent. For results of statistical tests and reported effect sizes, the values were entered. The coding scheme was piloted on a small sample of four studies to ensure its comprehensiveness. After pilot coding, operational definitions of the moderator variables were further developed. Two coders independently coded the rest of the 96 studies. Ten studies from the second coder’s portion of the sample were re-coded by the first coder, yielding a 94.2% agreement rate. Cohen’s Kappa for inter-coder agreement was 96.6% (κ = 0.92) for binary variables in the coding scheme. Discrepancies between the two coders were resolved through discussion.

**Analysis**

We conducted two analyses. The first analysis involved a scoping review in response to the first research question. We calculated percentages of methodological features found in the primary studies. We also analyzed study findings for general trends. The second analysis was a meta-analysis responding to the second research question, i.e., the relationship between proficiency and pragmatic competence. We followed multiple steps for this analysis. First, we identified 26 studies that examined proficiency as a learner characteristic and reported effect sizes (or enough statistical information to calculate effect sizes). We excluded studies with instructional interventions. Second, after removing one outlier from the sample, effect sizes in 25 studies were averaged. Following Plonsky and Zhuang (2019, p. 293), before averaging, effect sizes were weighted by their corresponding sample sizes. As Plonsky and Oswald (2015) explain, studies with larger effect sizes typically display less sampling error, so it is important to allow those studies to contribute more to the mean effect sizes. Furthermore, several studies reported multiple effect sizes.
Finally, moderator analyses were performed to investigate how methodological choices made by the authors might explain the findings obtained in the studies. We examined the effects of two moderators: measures of proficiency and measures of pragmatic competence. We focused on proficiency measures as a moderator variable because they can be directly reflected in the outcome of the study itself. Generally, standardized assessments are considered more reliable than informal tests or self-assessments if reliability is not carefully constructed or is not measured (Miller et al., 2009); therefore, it is possible that aggregated effect sizes vary corresponding to types of proficiency measures used. Gass and Selinker (2008) present three common ways of classifying learners by proficiency: institutional level (based on a placement test or year level in a program), standardized test (e.g., TOEFL), and researcher-designed tests. We used these classifications when categorizing proficiency measures.

In addition to proficiency measures, we focused on pragmatic competence measures as a moderator variable because previous meta-analyses on instructed L2 pragmatics found that the effect of instruction varied depending on measures used to assess pragmatic competence (Badjadi, 2016; Plonsky & Zhuang, 2019). As our scoping review revealed (see the next section), ten different measures were found in the primary studies. We categorized them into two types: production-based and comprehension-based. The former involved measures eliciting learners’ production (e.g., role plays), while the latter involved measures tapping receptive skills (e.g., comprehension of meaning and recognition/judgment of appropriate expression).

Results

This section presents findings in two parts. The first part is a scoping review in response to the first research question about the volume, range, and characteristics of existing studies. The second part presents the results of a small-scale meta-analysis examining the relationship between proficiency and pragmatic competence.

Part 1: Scoping Review

Research Designs and Participant Demographics

Table 20.1 presents results for the features of study contexts and sampling methods. The majority of the studies employed convenience-sampling methods, and only 6% used random sampling. The sample size had a wide range, spanning from nine to 655, although the majority of the studies had between ten and 100 participants. Most studies involved adult participants.

We coded the studies for two types of study contexts: learning context and institutional status. As seen in Table 20.2, most studies took place in a foreign language context (71%) and in universities (81%).

Table 20.1 Summary of Participants’ Age and Sampling Methods

<table>
<thead>
<tr>
<th>Study Feature</th>
<th>k</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Non-random</td>
<td>83</td>
<td>86</td>
</tr>
<tr>
<td>Cannot be inferred</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Age of participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children (&lt;13)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Teens (13–17)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Adults (&gt;18)</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>Mixed ages</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Not reported</td>
<td>28</td>
<td>29</td>
</tr>
</tbody>
</table>
First and Target Languages

This review also surveyed first languages (L1s) and target languages (TLs) studied in the domain. Interestingly, while English is clearly the leader among the investigated TLs, there is a wide variety of L1s spoken by the participants. Over a quarter of the studies included speakers of multiple languages (26%), with L1 Japanese and L1 English being the second and third largest groups, respectively (Figures 20.1 and 20.2).

Learner Characteristics and Target Pragmatic Features Examined

Among the learner characteristics examined, proficiency was by far the most examined individual characteristic in the primary studies (86.5%) (Figure 20.3). Eight studies investigated learners’ motivation. A few studies investigated other learner characteristics (e.g., lexical access skill, anxiety, personality, working memory, and aptitude; see the next section for the measures used to examine these factors). In terms of study designs, 20.8% of studies followed the correlational design looking at the relationship between pragmatic competence and the individual difference of interest; however, in the majority of studies (79.2%), participants were split into two or more groups based on the variable of interest adhering to the between-group design (e.g., comparing two groups who showed different levels of motivation based on survey).

### Table 20.2 Summary of Study Contexts

<table>
<thead>
<tr>
<th>Study Feature</th>
<th>k</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second language</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Foreign language</td>
<td>68</td>
<td>71</td>
</tr>
<tr>
<td>Mixed</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Not reported</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Institutional status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-12</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>College/university</td>
<td>78</td>
<td>81</td>
</tr>
<tr>
<td>Language institute</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mixed</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Not reported</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 20.1 Participants’ First Languages.
Turning to target pragmatic features, over three-quarters of the studies focused on the production and comprehension of speech acts, while a few studies examined both (e.g., Aslan, 2016; Siu, 2008) (Figure 20.4). A smaller proportion of the studies examined the production and comprehension of conventional expressions or routine formulae (15.7%). About 4% of the studies did not name a specific pragmatic construct and instead assessed pragmatic competence holistically (termed as “overall pragmatic competence”) (e.g., Hamidi & Khodareza, 2014).

We further coded the studies for the type of speech acts examined. As shown in Figure 20.5, requests, refusals, and apologies were the most popular speech acts, potentially because there are well-established coding schemes facilitating the analysis of these speech acts (e.g., Blum-Kulka, House, & Kasper, 1989). In fact, almost 65% of the studies used pre-existing coding schemes to some extent. Out of 70 studies on speech acts, 22 studies examined more than one speech act.

Measures for Assessing Pragmatic Competence and Learner Characteristics

Regarding the instruments used to assess pragmatic competence, ten major types emerged (Figure 20.6). Discourse completion tests (DCTs) demonstrated a distinct prevalence over other measures. In a typical DCT, participants read a situational scenario and respond as if they were in the situation performing the role. The scenario usually features specific contextual parameters.
Figure 20.4 Pragmatic Features Examined. Note: The percentages do not add up to 100% because several studies examined more than one pragmatic feature.

Figure 20.5 Speech Act Types Examined. Note: The percentages do not add up to 100% because several studies examined more than one speech act.

Figure 20.6 Measures for Pragmatic Competence.
IDs for L2 Pragmatics

Participants’ responses can be either in writing (written DCT), spoken (oral DCT), or multiple-choice format (MCDCT). In the primary studies examined, written DCTs were used almost three times as often as spoken DCTs. After DCTs, role plays were another popular measure. In a typical role play, participants act out a scenario with a peer learner or a researcher. Typically, data elicited via DCTs or role plays are assessed for overall appropriateness using a rating scale or a coding framework (e.g., categorizing speech act strategies and counting their frequencies). Less popular measures include receptive tasks in which participants listened to a conversation and rated it for the degree of directness (e.g., Dewaard, 2012). Participants’ response choices were often compared with baseline data (e.g., native speakers’ choices). Several studies used performance-based tasks (other than DCTs and role plays), such as writing emails (e.g., Baron & Ortega, 2018) and constructing dialogues (e.g., Maeshiba et al., 1993). Overall, studies that examined learners’ interaction abilities (e.g., role play) were small in number (11.5%). Only one study analyzed naturalistic interaction data. Doehler and Pochon-Berger (2015) examined the relationship between pragmatic competence and proficiency by analyzing the production of disagreements in audio- and video-recorded interactions naturally occurring in a French classroom.

How are the individual difference factors examined? In terms of measures for proficiency, a large number of studies used standardized proficiency tests (e.g., TOEFL) and institutional level (e.g., a year in a language program) (Figure 20.7). Self-report surveys and questionnaires were used to measure other individual learner variables such as motivation and personality. For example, Eslami and Ahn (2014) adapted Gardner’s (1985) attitude/motivation test battery to assess motivation, while Taguchi (2014) assessed personality based on the Myers–Briggs type indicator (Myers & Briggs, 1976). On the other hand, an experimental task was used to assess lexical access skills (i.e., having participants judge whether the target word refers to a living or non-living object).

Statistical Analyses and Research Reporting Practices

The final area of examination involves reporting practices and study transparency. We coded the primary studies for several reporting features (i.e., whether studies reported descriptive statistics, effect sizes, confidence intervals, and reliability estimates). Following Plonsky (2013), we also coded the studies for the presence of visuals and statistical assumption checks. Although descriptive statistics (mean, standard deviation) were present in the majority of the studies, other features like reliability estimates were found in less than half of the studies (Figure 20.8). Moreover, only a quarter of the studies indicated checking the assumptions. Critically, less than half of the studies reported

![Figure 20.7 Measures for Learner Proficiency.](image-url)
effect sizes in their results, and only one study (Xiao et al., 2019) reported confidence intervals for the effect size.

**General Trends in Study Findings**

Before moving to the meta-analysis on the relationship between proficiency and pragmatic competence, we present general findings focusing on individual factors other than proficiency. To reiterate, a large portion of the studies (86.5%) examined proficiency, leaving an extremely small number of studies on other factors, including cognitive factors (working memory, lexical access skill, and aptitude), affective factors (motivation and anxiety), and personality (see Figure 20.3).

*Cognitive factors.* Several studies examined working memory, lexical access skill, and aptitude in relation to pragmatic competence. Taguchi (2008b) assessed working memory using the reading span test (Osaka, 2003) and found no significant correlation with L2 English learners’ comprehension of implicature. However, in the same study, a significant correlation emerged between the lexical access skill (how quickly one can make a judgment about whether the word refers to a living or non-living object) and speed of implicature comprehension (response time data). Similar patterns were found in Taguchi (2008a), which showed that the lexical access skill correlated significantly with gains in the comprehension speed of implicature in L2 English. These findings indicate that the speedy processing of lower components (i.e., word judgment) is related to the speedy processing of higher-order information (i.e., implicature comprehension). The role of working memory needs to be investigated further because the reading span test was administered in participants’ first language (i.e., Japanese); the working memory advantage in L1 may not be directly evident in L2. In addition, there was a modality mismatch between the working memory measure (reading) and implicature comprehension measure (listening). The listening span test could serve as a more precise measure of working memory involved in a listening test.

Li (2017) is the only study that examined the role of aptitude in pragmatic competence. Li used the modern language aptitude test (Carroll & Sapon, 1959) to measure grammatical sensitivity, rote memory, and working memory among L2 Chinese students learning request-making in Chinese. Learners with a larger working memory capacity became faster in recognizing appropriate request-making forms after instruction (as assessed with multiple-choice items). In addition, a significant correlation was found between rote memory and the speed involved in planning for request-making forms (assessed with a spoken DCT). These findings show that instructional gains in different aspects of pragmatic competence (e.g., recognition speed and planning time) were related to different dimensions of aptitude.
Affective factors. Several studies examined the relationship between affective variables—motivation and anxiety—and pragmatic competence. Takahashi’s (2005) study was the first to explore the role of motivation in L2 pragmatics. L2 English learners who had greater intrinsic motivation showed greater awareness of target request forms (as assessed via self-report responses). In a subsequent study, Takahashi (2015) found that learners with stronger motivation and higher proficiency were more likely to notice the target request forms in a receptive task than those with lower proficiency and motivation, but these factors did not play a role in the production of request forms in a DCT. These findings suggest that the recognition and production of pragmalinguistic forms have different relationships with motivation. A study by Eslami and Ahn (2014) also revealed the impact of motivation on L2 English learners’ speech acts elicited via written DCT. In their study, Gardner’s (1985) attitude/motivation test battery was adapted to assess learners’ motivation. Regression analysis showed that motivation was a significant predictor of speech act score, although the amount of variance explained by motivation was small (8%).

In another study, Tajeddin and Moghadam (2012) developed an original survey measuring two types of motivation: general pragmatic motivation and speech-act-specific motivation. Regression analysis revealed a significant impact of speech-act-specific motivation on the participants’ speech act production (assessed with a written DCT), but general pragmatic motivation showed no effect. Lending support to these findings, Perdhani’s (2016) regression analysis revealed that general pragmatic motivation did not predict L2 English learners’ speech-act score (elicited via written DCT).

Another affective variable, anxiety, has been examined only in one study. Aslan (2016) employed a mixed-method approach to examine how classroom communication anxiety (measured with a researcher-developed anxiety scale), among other factors, predicted the pragmatic competence of international teaching assistants (ITAs) in the US classroom. Although multiple-regression analysis indicated only a small percentage of variance explained ($r^2 = 0.036$), qualitative analysis revealed that classroom management anxiety contributed to ITAs’ pragmatic competence.

Personality. Personality has been examined in a few studies, yielding inconclusive findings. Verhoeven and Vermeer (2002) examined the relationship between pragmatic competence and personality among L2 Dutch children. Personality was determined by the “big five” model (Goldberg, 1992) involving five traits (extraversion, agreeableness, consciousness, neuroticism, and openness). Pragmatic competence was measured with a role-play task eliciting speech acts. Results showed that pragmatic competence moderately correlated with openness, but not with other traits.

Turning to adult learners, Kuriscak (2006) examined the impact of personality on college-level Spanish learners’ speech acts (measured via written DCT), as well as on their perceived difficulty with producing the speech acts (rated on a seven-point scale). Three personality traits were assessed: extraversion, neuroticism, and social desirability. Regression analyses revealed that learners who were more extraverted produced more elaborate speech acts. In addition, learners who scored higher on the neuroticism scale and lower on social desirability perceived the DCT scenarios to be more difficult to respond to. On the other hand, Taguchi (2014) found no impact of extraversion on the development of appropriateness of speech acts in L2 English (measured via spoken DCT). Learners’ personalities were assessed based on the Myers–Briggs type indicator (Myers & Briggs, 1976). While the extravert–introvert dimension had no effect, the feeling–thinking dimension significantly affected speech-act development. The “feeling” types (making decisions based on subjective feelings) had a significantly higher appropriateness score than the “thinking” types (making decisions based on objective criteria) at the beginning of the study, but the “thinking” types increased the appropriateness score over a semester. The same personality dimension also revealed a significant effect on fluency. The “feeling” types became faster when planning for speech acts over time, but the “thinking” types did not.

In summary, cognitive factors were found to be related to pragmatic competence, particularly with the fluency dimension of the competence (response time and planning time), although the findings were not always consistent. The relationship between motivation and pragmatic competence seems to persist across studies, but findings also suggest that motivation for specific aspects of
pragmatic competence (motivation for speech acts) is more directly related to pragmatic performance on those aspects (speech act performance). Similarly, the relationship between personality and pragmatic competence is complex, mediated by specific aspects of personality and pragmatic competence examined. Overall, the existing pool of studies is too small to draw a definite conclusion from these tendencies. Future studies are needed in order to address the relationship between different individual factors and pragmatic competence. In the next section, we turn to the factor of proficiency, which yielded a sizable pool of studies for meta-analysis.

Part 2: Meta-Analysis of Learners’ Proficiency and Their Pragmatic Competence

This section presents findings in response to our second research question, which addressed the relationship between proficiency and pragmatic competence. Primary studies for the analysis came from the scoping review. Although a total of 81 studies focused on proficiency, only 39 either reported effect sizes or provided enough information for calculating effect sizes. Four effect size types were found in the 39 studies: Cohen’s $d$, correlation coefficient $r$, eta-squared, and partial eta-squared. After examining the reported effect sizes, it appeared that the distinction between eta-squared and partial eta-squared in the studies was not clear. In particular, eta-squared mislabeling issues have been identified in earlier versions of SPSS, a popular statistical software program among applied linguistics. Therefore, it was decided to not include studies with eta-squared and partial eta-squared in the meta-analysis.

After excluding those studies, the final sample consisted of 26 studies. In this sample, 11 were correlational studies (examining a correlation between proficiency and pragmatic competence), while 15 studies used the between-group design (comparing learners’ pragmatic competence across proficiency levels). These studies are marked with an asterisk in the bibliography. Despite the common practice of transforming effect sizes (e.g., Yan et al., 2016), in this meta-analysis we decided against the transformation. In other words, we weighted and aggregated all the $r$ coefficients obtained from correlational studies separately from Cohen’s $d$ values that we gathered from between-group studies. This decision was made to avoid presenting the continuous variable “proficiency” as a dichotomized one, where possible.

Before calculating the weighted effect sizes, two funnel plots were created using the program JASP (version 10.12) to assess the publication bias in the sample. A symmetrical distribution of effect sizes around the mean (indicated by the vertical bisector) would imply the absence of publication bias. Figure 20.9 shows that the effect sizes on the funnel plot of correlational studies were situated rather unsymmetrically around the mean, which indicates publication bias, suggesting that the observed effect may not be completely representative of the relationship between proficiency and pragmatic competence. Moreover, a clear outlier was detected in the first quadrant of the funnel plot. This outlier

![Figure 20.9](image-url)
The effect size was situated more than two standard deviations (SDs) away from the mean. To avoid the risk of further inflating the calculated overall effect size in this group, this outlier study was excluded from further analyses, resulting in 25 studies that were included in the effect size calculations and moderator analysis. On the other hand, the funnel plot of between-group studies showed an even larger spread of effect sizes, especially on the right side of the mean, implying publication bias. Similar to the correlational studies group, this observation indicates that the aggregated effect size for this group may be inflated (Figure 20.9). However, no distinct outliers were identified in the visual analysis of this forest plot, and none of the effect sizes were above or below two standard deviations from the mean.

**Overall Effects**

First, we examined the overall strength of the relationship between proficiency and pragmatic competence. Figures 20.10 and 20.11 show forest plots of ten independent correlation coefficients.
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(correlational studies) and 15 independent Cohen’s $d$ effect sizes (between-group studies) with their 95% confidence intervals. The square mid-point on each line represents the point estimate of the effect size for each study, and the rhombus at the bottom of each forest plot details the aggregated effect size. The overall weighted $r$ coefficient suggested a moderate positive correlation between learners’ proficiency and their pragmatic competence, according to the Plonsky and Oswald’s (2014) guidelines for SLA research ($r = 0.38, 95\% \text{ CI} [0.28, 0.48]$). That is, the relationship between learners’ proficiency and their pragmatic competence is moderate but not very strong. In contrast, for between-group studies, the overall weighted Cohen’s $d$ average for the 15 effect sizes was $0.98, 95\% \text{ CI} [0.65, 1.31]$. The finding indicates that, on average, higher-proficiency learners demonstrated more advanced pragmatic performance: participants’ performance differed by almost one standard deviation between lower- and higher-proficiency levels. This Cohen’s $d$ value is considered large (Plonsky & Oswald, 2014), suggesting that proficiency does, in fact, have a sizable effect on learners’ pragmatic performance. However, since the confidence intervals around the effect size are quite large, we need to interpret the findings with caution.

Moderator Analyses

In addition to the overall effects, we explored the extent to which the observed effects may vary across two moderator variables: measures of proficiency and pragmatic competence. In order to allow for a more robust sample, we transformed all Cohen’s $d$ effect sizes into correlation coefficients. While we still argue against such a transformation when calculating the overall effect, it was deemed necessary for our moderator analyses due to the small sample in the study. Without transforming the effect sizes, some of the comparison groups would include an insufficient number of studies potentially leading to systematic loss of information, resulting in bias in moderator analysis (Borenstein et al., 2009). This transformation was possible because these two indices represent a conceptually common relationship (pragmatic competence and proficiency). Moreover, we found that when the $d$ aggregated from 15 between-group studies was converted into $r$, the resulting $r$ value was close to the one observed in the correlational group ($0.44$ vs. $0.38$). The proximity between these two $r$ values provided further support that the transformation of individual Cohen’s $d$ effect sizes was appropriate. Thus, the moderator analysis was performed with 25 correlation coefficients. We acknowledge that the results need to be interpreted with caution due to small sample sizes and overlapping confidence intervals (CIs) (Tables 20.3 and 20.4).

To estimate the extent to which the moderators might have affected the resulting effect size, correlation equivalence tests for each contrast were calculated following Eid et al.’s (2011) guidelines (p. 547), which allowed us to account for the sample size used to calculate each correlation and provide the exact $p$ value for each comparison. Results showed that none of the contrasts were significant, indicating that there were no significant moderator effects. However, the differences in effect sizes, found as a result of the analysis, provide some insights into the effect of the chosen moderators in the domain.

| Table 20.3 Moderator Analysis of Proficiency Measures |
|---------------------------------|-----------------|-----------------|
| **Grouping Variables**          | **$k$**         | **$M(r)$**      | **95% CI**       |
|---------------------------------|-----------------|-----------------|
| Measure of proficiency          |                 |                 |                 |
| Institutional level             | 10              | 0.44            | 0.28            | 0.59            |
| Standardized test               | 11              | 0.46            | 0.30            | 0.62            |
| Researcher-designed test        | 4               | 0.34            | 0.23            | 0.46            |
Table 20.3 presents analyses of proficiency measures as moderator effects. Although not significant, a larger association between proficiency and learners’ pragmatic competence was observed when proficiency was measured using a standardized test rather than a researcher-made test.

Regarding the moderator effects of measures assessing pragmatic competence, as Table 20.4 shows, the results revealed a slightly larger effect of proficiency when production-oriented measures were used (although not significant). This finding indicates that proficiency seems to play a more decisive role when learners have to produce pragmatic functions in writing or speaking. Learner proficiency—knowledge and control of grammar and vocabulary—seems to carry less weight when pragmatic competence is assessed in receptive skills (e.g., comprehension and judgment tasks).

### Discussion

This chapter presented a systematic research synthesis of quantitative studies that examined relationships between individual learner characteristics and pragmatic competence. We reviewed 96 studies that met our inclusion criteria to map the volume, range, and methods of the existing practice. Then, we conducted a small-scale meta-analysis on 25 studies to investigate the magnitude of the relationship between pragmatic competence and proficiency. Several noteworthy tendencies emerged in our analyses:

1. Participants were skewed toward college-level learners of L2 English recruited via convenience-sampling methods.
2. Speech acts were the most frequently examined target features in the existing studies, with requests, refusals, and apologies featuring in the majority of the studies. The discourse completion test (DCT) was the primary measure used to elicit speech acts.
3. Proficiency was the most popular learner characteristic examined, occupying over 80% of the studies. In the majority of the studies, proficiency was determined by the institutional level or measured with a standardized test (e.g., TOEFL).
4. In terms of study transparency, the majority of the studies reported descriptive statistics, while less than half of the studies reported reliability, effect sizes, and assumption checks.
5. Proficiency had a moderate-to-strong overall effect on pragmatic competence. The impact of proficiency was stronger when it was measured using a standardized proficiency exam. Proficiency impact was also stronger when pragmatic constructs were assessed in production skills.

### Interpretations of the Findings from the Scoping Review

The tendencies that emerged in our scoping review conform to the field’s practice in general. College-level language classes have been the primary research sites in the field, and college students have served as volunteer participants in many studies. Speech acts (especially requests) have been examined extensively across different domains of research including longitudinal studies (Taguchi,

<table>
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<th>Grouping Variables</th>
<th>k</th>
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<td>Lower</td>
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<tr>
<td>Measures of pragmatic competence</td>
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<tr>
<td>Production-based</td>
<td>15</td>
<td>0.40</td>
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<td>Comprehension-based</td>
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The popularity of speech acts inevitably reflects the disciplinary history. The early definition of the field made an explicit reference to speech acts as a focus of investigation (Kasper & Dahl, 1991; see the Background section). In addition, speech acts present clear connections among linguistic forms, functions, and social contexts. Certain linguistic forms co-occur with certain speech acts (e.g., “could you” for request), and the form-function pairings tend to be associated with certain contextual parameters (e.g., speakers’ power relationship and social distance). Hence, speech acts have served as a convenient unit when examining learners’ knowledge of form-function-context mappings (or pragmalinguistic and sociopragmatic knowledge according to Thomas, 1983). However, this trend indicates that the field’s view of pragmatic competence is narrowly confined to the knowledge of form-function-context mappings, and other dimensions of pragmatic competence such as interaction ability and learner agency are not fully addressed. This tendency was also detected in our analysis of measures used for examining pragmatic competence. We found that DCTs eliciting a one-turn response have been the primary measure; role plays and recordings of naturalistic interactions have not featured much in the current practice.

The field’s skewed focus on speech acts and DCT measures is especially problematic when the impact of learner characteristics is considered. Wide-ranging individual factors are considered to affect the process and outcome of L2 learning (Dörnyei, 2005; MacIntyre et al., 2016). Some factors are cognitive in their orientation (e.g., aptitude), while others are affective (e.g., motivation and attitudes). Critically, these factors are considered to interact with each other and jointly influence L2 learning (Dörnyei, 2009). This emphasis on diverse learner characteristics does not align with the current practice of L2 pragmatics research that narrowly focuses on speech acts as the target area of examination. Speech acts, as viewed and measured as a set of fixed pragmalinguistic forms, are most likely to be affected by knowledge of grammar and vocabulary. As a result, proficiency is likely the primary factor contributing to learners’ speech act performance. The fact that speech acts and proficiency were examined most often in the primary studies (77.1% and 86.5%, respectively) supports this interpretation. However, these results do not mean that other learner characteristics do not affect pragmatic competence. It is just that other factors have not been examined widely in the field, leading to a restricted understanding of the role of learner characteristics in pragmatics learning. Considering that pragmatic competence involves multiple dimensions (knowledge, interaction ability, and agency; see the Background section), it is critical for the field to approach pragmatic competence from different perspectives and explore how different dimensions of the competence are affected by different learner characteristics.

Interpretations of the Findings from the Small-Scale Meta-Analysis

Turning to the results of meta-analysis, we found that proficiency had a moderate-to-large effect on pragmatic competence. The effect was larger for the studies involving between-group comparisons than for those with correlational analyses. The notable impact of proficiency on pragmatic performance is understandable because more proficient learners often have more vocabulary and a wider repertoire of grammatical forms, which help them produce speech acts at different levels of politeness, understand implied meaning in a conversation, and interact with others skillfully. More proficient learners are also equipped with a greater processing capacity of linguistic forms, which frees up their resources so they can fine-tune their production and comprehension of pragmatic meanings (Taguchi & Roever, 2017). Our findings lend support to these existing claims, as well as to a long-standing argument that L2 learners’ pragmatic competence is constrained by their grammar (e.g., Bardovi-Harlig, 2013; Kasper & Rose, 2002). Although grammatical competence does not entirely explain pragmatic competence (Taguchi, 2012; Taguchi & Roever, 2017), a great degree of proficiency underlies pragmatic competence.
A new insight derived from our meta-analysis was the measurement-related factors affecting the proficiency–pragmatics relationship. Although the moderator effects were not statistically significant, we found that studies using a standardized test to determine proficiency had a slightly higher effect than those using researcher-made tests, supporting previous claims from assessment practice that standardized exams are generally reliable measures of proficiency (Miller et al., 2009). The findings also indicate that standardized exams (e.g., TOEFL) that tap grammatical knowledge reveal more about learners’ pragmatic competence, lending further support to the claim that pragmatic competence is constrained by grammar, especially since pragmatic competence has been operationalized as knowledge of form–function–context mappings in many existing studies.

Similarly, we found that the influence of proficiency was more evident when pragmatic competence was assessed using a production-oriented task than a receptive skill measure, although the difference was rather small. This finding is a likely result of an interaction among target pragmatic construct, modality, and proficiency. Most speech act studies have used productive measures that require writing or speaking of the target speech act. Unlike receptive skill measures, in productive measures, learners’ morphosyntax must be accurate and precise so their intentions encoded in speech act utterances are understood correctly. Because of the greater linguistic processing required for production, proficiency effects might appear strongly in production-oriented measures. In contrast, proficiency effects may appear weak in tasks using receptive skills that do not demand precise linguistic processing. In those tasks, learners can infer overall meaning or select appropriate pragmatic expressions without a complete understanding of linguistic information.

In summary, the meta-analysis showed that higher-proficiency learners generally show better pragmatic performance than their lower-proficiency counterparts, but the effects were not uniform. The proficiency–pragmatic competence link is mediated by the measures used to assess these two variables.

Practical Applications

Based on the synthesis findings, we offer several implications for teaching pragmatics. First, a moderate-to-strong effect of proficiency on pragmatic competence found in the meta-analysis indicates that classroom instructors should consider learners’ proficiency when teaching and assessing their pragmatic competence. Learners whose linguistic competence is still underdeveloped may not benefit fully from instruction. Similarly, the pragmatic competence of those learners may not be captured well in an assessment task that imposes too much demand on overall proficiency. Hence, learners’ readiness is an important consideration when designing instructional and assessment tasks since learners’ performance on those tasks is likely to be mediated by their linguistic maturity.

Second, a slightly larger effect of proficiency on pragmatic production as opposed to comprehension or recognition (see Table 20.4) found in this study suggests that production-based tasks are more demanding to complete and thus require higher-level proficiency. Teachers should keep this interpretation in mind as they design and develop tasks for instruction. They can teach the same pragmatic functions using tasks sequenced according to their modality, moving from easier, receptive skill-based tasks to more difficult, production-oriented tasks.

Future Directions

Rather skewed distributions of existing studies uncovered in our analyses indicate the need for expanding the scope of research on the relationship between individual difference factors and pragmatic competence. Below, we present several recommendations for expanding future research.

1. In the current landscape, the majority of studies have focused on English as the target language. The weighty influence of L2 English studies needs to be remedied by examining pragmatic competence in a variety of languages. Multiple languages are spoken widely around the world, and people have
different reasons for learning different languages (Ushioda & Dörnyei, 2017). Correspondingly, people have different kinds of motivation for learning a specific language, develop different levels of proficiency, and exhibit different personality traits depending on the language they learn. Future studies should examine the dynamic interaction between different target language groups and learner characteristics by expanding their participant pools beyond L2 English learners.

2. The target learner characteristics and pragmatic features need to be expanded in future research, moving beyond the typical constructs of proficiency and speech acts. Researchers should first operationalize the construct of pragmatic competence and decide how to best assess the competence. Based on this decision, they should consider which learner characteristics may be most related to the aspect of pragmatic competence under study and how they can empirically test the relationship. For example, knowledge of form-function-context mappings may be strongly supported by general proficiency, but interactional competence for collaborative meaning-making may be affected most by personality and communication style preferences. The principled selection of learner characteristics and pragmatic constructs for investigation will help us understand the precise nature of the impact of individual characteristics on pragmatics learning.

3. Methodological rigor in the current research domain was found to be rather limited because not all studies reported effect sizes, confidence intervals, reliability estimates, and assumption checks. Studies using random sampling were also rare. In order to produce more robust and trustworthy findings, future studies should exercise maximum care for reporting procedures and study transparency.

4. Because this chapter focused on quantitative studies, a research synthesis of qualitative studies is necessary in the future so we can gain a more balanced understanding of the relationship between pragmatic competence and learner characteristics. The two research approaches—quantitative and qualitative—present fundamentally different ways of conceptualizing the role of individual characteristics in pragmatics learning. Traditionally in L2 pragmatics research, a quantitative approach views learner characteristics as categorical stable traits that are measurable as a general tendency, while a qualitative approach views individual characteristics as evolving in flux in interactions between the learner and context. Some learner characteristics such as identity and agency, when framed from more interpretivist paradigms, can be most profitably examined by using qualitative data. Hence, a qualitative research synthesis will be a valuable addition to the given domain, expanding our understanding of the role of individual characteristics in pragmatics learning.

References

NOTE. The complete list of references, including primary studies for research synthesis, is available on IRIS: https://www.iris-database.org/iris/app/home/detail?id=york:938982


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