SECOND LANGUAGE MOTIVATION:
ITS RELATIONSHIP TO NOTICING, AFFECT, AND PRODUCTION
IN TASK-BASED INTERACTION

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By

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ABSTRACT 

Second language (L2) motivation has been characterized as a complex construct comprised of cognitive, affective, and behavioral components (Gardner, 1985, 2001, 2006). This research explored whether components of L2 motivation significantly related to cognitive, affective, and behavioral dimensions of task-based interaction – specifically, the cognitive dimension of noticing of recasts; the affective dimensions of task satisfaction, task relevance, and task difficulty; and the behavioral dimensions of accuracy, complexity, and fluency of L2 production. Second language motivation was operationalized in accordance with measures adapted from three qualitatively distinct theoretical conceptualizations: the traditionally investigated socio-educational model of second language acquisition (Gardner, 1985, 2001, 2006), the situated perspective of state motivation (Gardner & Tremblay, 1998; Julkunen, 1989, 2001; Tennant & Gardner, 2004; Tremblay, Goldberg, & Gardner, 1995), and the more recently proposed L2 motivational self-system (Dörnyei, 2005, 2009a). Forty-four intermediate learners of Arabic completed a motivation questionnaire, took part in a video-taped task-based interaction with a native speaker interlocutor, and then returned one day later for a stimulated-recall session addressing clipped episodes from their task-based interaction. Ratings of task satisfaction, task relevance, and task difficulty were obtained from participants after each of the six tasks used during interaction. Results indicated that attitudes towards the L2 community, a component of integrativeness in the socio-educational model, significantly predicted reported noticing of recasts. Also, state motivation significantly correlated with task satisfaction and task relevance. As for L2 production, the aggregate construct of motivation, as defined by the socio-educational model, significantly predicted accuracy, complexity, and fluency in four participants, the two most-motivated and the two least-
motivated in the sample. No measures from the L2 motivational self-system were found to be associated with noticing of recasts or L2 production. Thus, in addition to empirically confirming important associations between L2 motivation and cognitive, affective, and behavioral dimensions of task-based interaction, the results highlighted the superior sensitivity of socio-educational measures in identifying meaningful relationships with L2 motivation in learners of Arabic as a foreign language.
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I alone am responsible for any shortcomings.

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CHAPTER 1: INTRODUCTION

Second language acquisition (SLA) research has shown that interaction is facilitative of second language (L2) learning through exposure to input, negotiation for meaning, reception of feedback, production of output, and noticing (Gass, 2003; Gass & Mackey, 2006, 2007; Long, 1996; Mackey, Abuhl, & Gass, forthcoming; Pica, 1994; Schmidt, 2001; Swain, 1995, 1998). However, calls have been made in the L2 field to pay closer attention to aspects of the interaction-learning relationship which have not been conventional targets of considerable empirical investigation (e.g., Gass & Mackey, 2007; Mackey, 2006a, 2006b; Philp, 2009) – namely, the role of individual difference variables in L2 learning. Empirical forays into this under-explored area of SLA have revealed that noticing and L2 learning are differentially related to individual difference variables, such as language learning aptitude (e.g., Robinson, 1996) and working memory (e.g., Mackey, Philp, Egi, Fujii, & Tatsumi, 2002; Mackey & Sachs, in press). The present study aimed to extend the breadth of this emerging branch of research by investigating L2 motivation, an additional individual difference variable commonly cited in the literature as a powerful driver of L2 achievement (e.g., Dörnyei, 2005; Dörnyei & Skehan, 2003; Gardner, 2006; Masgoret & Gardner, 2003). Since L2 motivation has long been theorized as a complex construct encompassing cognitive, affective, and behavioral components (Gardner, 1985, 2001, 2006), this research sought to empirically determine whether L2 motivation related to cognitive, affective, and behavioral dimensions of L2 task-based interaction – specifically, the cognitive dimension of noticing of recasts; the affective dimensions of task satisfaction, task relevance, and task difficulty; and the behavioral dimensions of accuracy, complexity, and fluency of L2 production. The tripartite approach was meant to achieve symmetry with the structural composition of L2 motivation, agreement with calls for more situated analyses of L2 motivation, and harmony with the view of language as a dynamic system of cognition, emotion, and conation (e.g., N. Ellis & Larsen-Freeman, 2006).

Recurrent throughout this dissertation is the phrase second language, which – should be noted – ought not to be understood either contextually or literally. As is conventional in SLA literature, two language learning contexts are distinguished: foreign and second language learning. Foreign language learning takes place in
localities where there are few native speakers of the target language outside the classroom, and where there are consequently limited opportunities to practice and be exposed to the target language. Second language learning takes place in localities where the target language is spoken by the community in which the learner lives, and where there is ample exposure to the target language outside of the language classroom. Although the present research recruited participants from a traditional foreign language learning context, Arabic taught as a foreign language in the US, Arabic is consistently referred to here as a second language for two reasons: the term is often used in the field as an umbrella term which covers both foreign and second language learning contexts, and the term simultaneously refers to any language learned after one’s first language (L1), regardless of how many others have been learned.

Moreover, this dissertation was premised on established observations in SLA literature about adult L2 learning. It does not progress categorically by learning one structure at a time (Long, 1990, 2005a; Skehan, 1998), but is gradual, cumulative, and non-linear (Long, 2005a). It involves passage through well-attested developmental stages (Pienemann & Johnson, 1987), during which learners are expected to progress at different rates, plateau at particular stages, and use non-targetlike forms for lengthy periods of time before eventually improving in accuracy (Larsen-Freeman & Long, 1991; Long, 1990). Even then, differences in learner levels of L2 attainment may persist as a result of learner idiosyncratic processing of the L2 (e.g., Roberts, 1995; Slimani, 1989). It was this aspect of idiosyncrasy in language learning that inspired the current research, particularly individual differences in L2 motivation.

Language learning motivation has been found to trail behind language learning aptitude in determining L2 learning success (Dörnyei, 2005; Dörnyei & Skehan, 2003; Gardner & Lambert, 1959, 1972). It can be enhanced, whereas language learning aptitude cannot (Noels, 2003), and can even compensate for deficiencies in language ability (Dörnyei, 2005; Dörnyei & Csizér, 1998; Dörnyei & Tseng, 2009). It has been found to increase the use of language learning strategies (e.g., Schmidt, Borai, & Kassabgy, 1996; Schmidt & Watanabe, 2001; Vandergrift, 2005; Wu Man-fat, 2007), enhance working-memory for reading processing (e.g., Konheim-Kalkstein & Van den Broek, 2008), foster intercultural contact with L2 speakers and L2 media (e.g., Csizér & Kormos, 2008), and
maintain the use of L2 skills after language instruction is over (e.g., Gardner, 1982; Kraemer, 1993). Without L2 motivation, Dörnyei (2005) stated, appropriate curricula, interactive teaching methods, and positive learning attitudes cannot ensure L2 learning achievement. Language learning motivation must be in operation for learners to benefit from the L2 learning resources available (Bernaus & Gardner, 2008).

In spite of the obvious pedagogical value of L2 motivation, it was not commonly incorporated in SLA investigations in the past. Zoltán Dörnyei, a chronicler of L2 motivation research and leading figure in the field, attributed previous limited integration of L2 motivation into applied linguistics to differences in the scholarly backgrounds and interests of researchers in both areas. In his book, *The psychology of the language learner* (2005), he explained that L2 motivation was initially investigated by social psychologists who were more interested in L2 outcome and how it differed in various motivational conditions. Applied linguists, on the other hand, were more interested in the L2 process than in learner impetus for language learning. Dörnyei then added that recent theoretical developments in both areas have created a research climate of overlapping interests. Applied linguistics embraced psychological factors as aspects of L2 learning worthy of further research, such as language learning aptitude and noticing. The study of L2 motivation also began focusing on more situated and process-oriented conceptualizations of motivation. Dörnyei, however, emphasized that

This potential interface still does not automatically guarantee integration. For real integration to take place, L2 motivation research needs to meet a final criterion, namely that it should focus on specific *language behaviors* rather than general learning outcomes as the criterion measure. (2005, p. 110, italics in original)

The research reported in this dissertation sought to apply Dörnyei’s stipulation for real integration. It investigated whether components of three theoretical conceptualizations of L2 motivation were associated with three aspects of L2 task-based interaction. The theoretical conceptualizations included the original socio-educational view of L2 motivation (Gardner, 1985, 2001, 2006), the situated perspective of state motivation (Gardner & Tremblay, 1998; Julkunen, 1989; 2001; Tennant & Gardner, 2004; Tremblay, Goldberg, & Gardner, 1995), and the newer paradigm of the L2 motivational self-system (Dörnyei, 2005, 2009a, 2010b). As for the three
aspects of task-based interaction targeted for evaluation in relation to L2 motivation, these were noticing of recasts, task affect, and L2 production. They were specifically chosen because they were considered representative of the three dimensions theorized by Gardner (1985) to comprise L2 motivation in his socio-educational model: cognition, affect, and behavior. Furthermore, they were measurable indices of real-time L2 learning behavior. They also corresponded to the dimensions constituting the *trilogy of mind*, recently extended from philosophy to L2 motivation research (Dörnyei, 2009c, 2010a), where cognition, emotion/passion, and conation/motivation are considered to be interrelated within the dynamic system of language (see, N. Ellis & Larsen-Freeman, 2006).

Thanks in no small part to Dörnyei, L2 motivation theory has become replete with fascinating and ever-evolving conceptualizations, the most recent of which have been adaptations of possible selves research (Markus & Nurius, 1986) and the dynamic systems approach (e.g., de Bot, Lowie, & Verspoor 2007). However the extent of each conceptualization’s relevance to specific L2 learning contexts and their bearing on behavioral indices of L2 learning can only be verified through empirical evaluation. For example, the socio-educational model of Robert C. Gardner, the researcher who originally put L2 motivation research on the map, dominated the field for nearly three decades as the accepted, statistically-validated theoretical explanation for L2 motivation. However, it was only when a slew of studies in the 1990s and early 2000s found inconsistencies between its postulates and specific L2 learning contexts that a more profound understanding of L2 motivation was achieved and important theoretical expansions were made. The lessons taken from that period of L2 motivation evolution were that theoretical frameworks are not necessarily universal, that an understanding of L2 motivation is contingent on sensitivity to L2 learning contexts, and that empirical investigations are a must in a variety of L2 learning settings in order to gauge each theoretical framework’s scope of relevance. Additionally, Dörnyei’s condition for real integration between L2 motivation and SLA is in need of further application. Again, the pioneering work of Dörnyei along with Judit Kormos (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004) broke ground on how L2 motivation related to actual L2 learning behavior, but more studies are needed to investigate the same relationships in languages other than English, tasks other than ones with argumentative purposes, and settings other than those conventionally investigated.
Task-based interaction was considered an ideal context for such investigations. It is primarily premised on the centrality of the interplay between social interaction and cognition (Gass, 1997, 2003; Gass & Mackey, 2006, 2007; Long, 1996; Mackey et al., forthcoming). It approximates real-life L2 usage in its reliance on activities which involve meaningful communication within dyads, potentially begetting realistic affective reactions to L2 learning. Furthermore, because it involves back and forth communication, task-based interaction requires an appreciable amount of production from L2 learners. Setting this research within the context of task-based interaction was thus expected to provide valuable information on the relationships between L2 motivation, on the one hand; and noticing, task affect, and L2 production, on the other.

In summation, the goal of this research was to overlay several theoretical conceptualizations of L2 motivation onto major dimensions of task-based interaction in search for interesting and meaningful alignments. It attempted to work “on the middle of the jigsaw,” as Philp (2009, p. 266) put it, by exploring whether/how motivational components and their interactional correlates interacted with one another. The hope was that a cross-disciplinary investigation (N. Ellis, 2009) of this kind would not only deepen our understanding of the role of L2 motivation in SLA, but also raise pertinent questions for further empirical research. The following chapters detail the research reported in this dissertation. Chapter 2 begins by elaborating the postulates of the Interaction Approach to SLA, the centrality of noticing in that approach, and the specific underpinnings of task-based interaction. Chapter 3 tracks L2 motivation research from its genesis in the late 1950s to its latest conceptualization as a constellation within a dynamic system of language learning, noting the limited integration of L2 motivation in task-based interaction research. Chapter 4 summarizes the literature, elucidates the research problem, and articulates the main research question and posited hypotheses. Chapter 5 details the design and methods followed in this research, the task materials used, and the processes of analyses. Chapter 6 reports the results of statistical procedures. Finally, Chapter 7 concludes the dissertation with a discussion of the results, a preview of theoretical and practical implications, an outline of research limitations, potential directions for further research, and conclusions that not only suggest significant associations between L2 motivation and cognitive, affective, and
behavioral dimensions of L2 task-based interaction, but also highlight the superior sensitivity of socio-educational measures in identifying meaningful relationships with L2 motivation in learners of Arabic as a foreign language.
CHAPTER 2: TASK-BASED INTERACTION IN SLA

2.1. The Interaction Approach

The main reason individuals from different backgrounds and walks of life put themselves through the agonizing ordeal of L2 learning is to be able to interact with other individuals in a new language of their choice in one way or another. Researchers in the field of SLA have proposed that interaction is not only an esteemed end for L2 learners, but actually a means to the achievement of that very end (Gass, 1997). The Interaction Hypothesis of SLA elucidated by Michael H. Long (1985, 1996) based this notion on important insights from a number of influential researchers in the field. Put simply, the hypothesis – more recently described as an approach (Gass & Mackey, 2006, 2007; Mackey et al., forthcoming) – suggests that when L2 learners receive comprehensible input (Krashen, 1985) and interactional feedback (Gass, 1997; Long, 1996; Pica, 1994) during their negotiations for meaning (Gass, 1997; Long, 1996; Pica, 1994), the interaction resultant through pushed and modified output (Swain, 1995) heightens learners’ attention to form (Gass, 1997; Schmidt, 1990, 2001), facilitating L2 learning.

Since its postulation, the interaction approach has garnered great interest in the field of SLA, attracting a large number of investigators and producing a sizable – and growing – body of empirical research. Interaction has been positively linked to L2 comprehension, production, and development over its research span of 30 plus years (for a review, see Mackey 2007b; for a discussion of core issues, see Mackey et al., forthcoming). Since Evelyn Hatch’s (1978) initial argument for the importance of studying L2 conversation, encouraging findings of support have established interaction as an important account of SLA (e.g., “The Five Graces Group:” Beckner, Blythe, Bybee, Christiansen, Croft, N. Ellis, Holland, Ke, Larsen-Freeman, & Shoenemann, 2009). This has led to recent reevaluation of its status as a hypothesis. Some researchers referred to interaction as a model (e.g., Ramírez, 2005) or a paradigm (e.g., Byrnes, 2005), while others predicted its eventual progression towards a theory (e.g., Jordan, 2005). Following VanPatten and Williams’ (2007) distinctions among hypotheses, models, and theories, Susan M. Gass and Alison Mackey (2007), two of the foremost experts on interaction in SLA, stated that the Interaction Hypothesis could be viewed as a model, though recent conceptualizations are moving it toward the status of a
theory. It is a model in the sense that it provides a detailed description of how the processes involved in L2 learning are interrelated, and what roles the interactional constructs of input, interaction, output, and feedback play in language learning. Yet it is more like a theory in its attempt to explain why interaction is believed to be linked to L2 learning by emphasizing the significance of cognitive undercurrents, such as noticing, working memory, and aptitude. Gass and Mackey (2006, 2007; Mackey et al., forthcoming) thus used the term interaction approach to refer to the phenomenon at hand. The four constructs of the interaction approach, input, interaction, output, and feedback, are briefly described below.

2.1.1. Input

Input is the starting point of SLA. It is the raw material from which learners construct linguistic hypotheses and the main source of positive evidence, which provides learners with information about what formulations are permissible within the new language. As a result, practitioners have been adamant in their efforts to make L2 input more understandable to learners, so much so that, when analyzed, the language addressed to non-native speakers (NNSs) was found to be distinct from that addressed to native speakers (NSs). Altered speech directed at NNSs was described as modified input or foreigner talk in early interaction literature (for an overview, see Gass & Selinker, 2001) because it was laden with adjustments which sought to either simplify or elaborate L2 input. Early emphasis on comprehension was linked to the belief that if L2 input was incomprehensible to learners, it was of little use to them in grammar construction. Stephen D. Krashen’s Comprehensible Input Hypothesis (1981, 1982, 1985), challenged today but widely accepted at the time of its formulation, had much to do with the pervasiveness of this belief. The Input Hypothesis stated that for L2 acquisition to automatically take place, as it does in child L1 acquisition, all which is required is that learners be exposed to L2 input in an understandable and contextualized manner that is slightly more advanced than the learners’ current level of ability. The first decade of interaction research, thus, largely produced empirical studies which confirmed a connection between conversational modifications to L2 input and enhanced comprehension (e.g. Gass & Varonis, 1985; Long, 1981, 1983, 1985; Varonis & Gass, 1985; for a summary, see Gass, Mackey, & Pica, 1998). Current understanding of SLA, however,
suggests that processes besides comprehensible input are required for L2 development. Interaction, output, and feedback are some of those processes.

2.1.2. Interaction

In spite of the empirically established link between interaction and L2 comprehension, Sato (1986) perceptively pointed out that conversational adjustments cannot be the only processes implicated in L2 development. In her longitudinal study of past-time reference in the production of two Vietnamese brothers, Sato observed that conversational adjustments facilitated the learning of linguistically salient features (e.g. adverbial phrases and calendaric expressions), but did little good when it came to the internalization of less detectable language forms, such as verb inflections. She concluded that conversational adjustments selectively facilitated L2 development, depending on the structures involved. Sato’s insights were field-altering because they led SLA researchers to two important realizations: that comprehensible input is insufficient for full-fledged language learning (Long, 1985), and that there is more to interaction than making input more comprehensible.

Interaction –by definition – involves two-way communication in which production elicits a reaction. So, in addition to positive evidence, L2 learners receive negative evidence about their non-targetlike formulations. Gass (1997) explained that negative evidence may go unnoticed by learners during interaction. However, in the event that it is noticed learners process the error by trying to determine its nature and how best to modify their knowledge of the language. They search the input for a more targetlike alternative, by way of listening, reading, or asking, and restructure their interlanguage accordingly. Engagement in interaction thus functions as a priming device (Gass, 1997, 2003) which sets the scene for potential learning (Gass & Mackey, 2007; Gass et al., 1998; Long, 1996).

Realization of the developmental potential of L2 interaction caused a focal shift in interaction research in the 1990s. Researchers moved beyond investigating whether interaction improved comprehension to exploring whether interaction enriched L2 production (e.g., Gass, Mackey, Ross-Feldman, 2005; Gass & Varonis, 1994; Mackey, Oliver, & Leeman, 2003; Polio & Gass, 1998). Moreover, connections between interaction and L2
learning began being investigated more seriously after Mackey (1999) provided empirical evidence that interaction led to development in L2 question formation. Since then the field has abounded with empirical studies which support the claim that interaction is beneficial for L2 learning (e.g., Mackey, 2006b; Mackey & Oliver, 2002; Mackey et al., 2003; Mackey & Philp, 1998; Mackey et al., 2002; Mackey & Silver, 2005; K. McDonough & Mackey, 2006; Philp, 2003; Sachs & Suh, 2007; for relevant meta-analyses, see Keck, Iberri-Shea, Tracy-Ventura, & Wa-Mbaleka, 2006; Mackey & Goo, 2007).

2.1.3. Output

Output refers to learner production in the L2. Its identification as a pivotal process in language learning originated from the work of Merrill Swain (1985, 1995, 1998) on L2 immersion programs in Canada. After years of content-based communicative French instruction in these programs, Swain noted a persistent contrast in achievement between learners’ receptive and productive skills. Learners’ performance was found to be less than 50% accurate in spite of their immersion in the L2, with systematic morphological errors in speaking and writing (Harley & Swain, 1985). This observation impelled Swain (1985) to propose the Output Hypothesis, which posits that what drives L2 development forward is production of output, not just reception of comprehensible input. She postulated that learners need to shift from semantically-oriented processing to more beneficial syntactic processing required for L2 production. Involving learners in interactions that require them to speak, she claimed, makes them more aware of syntax during comprehension and production, which pushes them to produce more targetlike output. In other words, syntactic awareness increases learner consciousness of what is lacking in their linguistic system (Swain, 1995, 1998), pinpointing the exact L2 forms in need of integration. Moreover, cognitive (morphological, syntactic, and semantic) processing functions as a means for hypothesis testing in L2 learning and a way to accelerate automaticity and increase fluency in the L2 (DeKeyser, 2001; Doughty, 2001). Empirical research on the relationship between modified output and L2 learning has rendered positive results supporting Swain’s Output Hypothesis (e.g. Egi, 2010; Leeser, 2008; K. McDonough 2005; K. McDonough & Mackey, 2006, 2008). In fact, recent interaction research has refined the conventional scope of output analysis. Investigations on primed production indicated that belated output after corrective feedback contained as many indices of language learning
as immediate output, if not more (K. McDonough & Mackey, 2006, 2008). Furthermore, working memory was found to significantly predict modified output produced by L2 learners (Mackey, Adams, Stafford, & Winke, 2010). Such findings underscore Swain’s (2005) updated position in regard to output, which is that it is not the product that affects language learning, but the overall processes of reflection and internalization entailed in L2 verbalization.

2.1.4. Feedback

Feedback refers to the reactions NSs or more competent interlocutors have to learners’ L2 utterances. It is the gauge through which learners measure the success or failure of their L2 production (Leeman, 2007). Positive feedback reinforces existing targetlike associations, and negative feedback highlights problematic areas in learners’ interlanguage, drawing more focused attention to form. Negative feedback can be either explicit or implicit. Explicit feedback readily identifies errors through overt corrections and rationalizes the use of more targetlike alternatives through metalinguistic explanations. Implicit negative feedback, focused on in this research, involves negotiation strategies, such as negotiations for meaning and recasts (Long, 1996).

2.1.4.1. Negotiations for meaning

Negotiations for meaning are interactional moves which indicate incorrectness and provoke adjustments to linguistic form or message content while maintaining emphasis on the achievement of consensus on meaning. They emerged from Long’s (1983) analysis of NS-NS and NS-NNS conversations. His analysis revealed that following breakdowns in communication with NSs, learners shift their emphasis from relaying a particular message to linguistically clarifying their intended meaning. The flow of conversation is momentarily or lengthily halted to attend to misunderstandings brought about by lack of sufficient linguistic knowledge (Gass & Varonis, 1985; Long, 1996). Once learners’ need for assistance is apparent, NSs provide feedback, beginning a process of negotiation with learners which ends with the arrival at their intended meaning. Three negotiation strategies known as the three Cs have been identified as abundant in L2 interaction (Long, 1983): comprehension checks (e.g., “Did
you understand?”), clarification requests (e.g., “What? What did you say?”), and confirmation checks (e.g., “Is this what you mean?”)

Negotiations for meaning bring together the three aforementioned constructs of input, interaction, and output. They signal incorrectness in the input, focus attention on problematic forms through interaction, and push learners to produce more targetlike output. In other oft-cited words, negotiations for meaning connect “input, internal learner capacities, particularly selective attention, and output in productive ways” (Long, 1996, pp. 451-452). Negotiations may result in learners noticing mismatches between the input and their own interlanguage (Gass, 1997) in instances described as noticing the gap (Schmidt & Frota, 1986). Learners may become aware of knowledge deficits of specific L2 forms which they happened to need during communication, detecting holes (Swain, 1998) in their interlanguage. Negotiations may also make salient to learners features of the language that are completely new to them, such as novel vocabulary words or grammatical constructions (Gass & Mackey, 2007). Empirical work on negotiations for meaning has found them to be positively linked to different aspects of L2 development (e.g., Mackey, 1999; Mackey, 2006b; Mackey & Oliver, 2002; Mackey & Silver, 2005).

2.1.4.2. Recasts

Alongside negotiations for meaning, Long (1996) included recasts as an additional type of interactional feedback. Recasts are more targetlike reformulations of learners’ non-targetlike utterances which keep the original meaning of the utterances intact (for more definitions, see R. Ellis & Sheen, 2006; Long, 2007; Nicholas, Lightbown, & Spada, 2001). They do not necessitate repetition of the entire utterance and may contain elaborations that are not part of the original utterance, but must be semantically congruent and temporally juxtaposed to the nontargetlike utterance of origin (Gass & Mackey, 2007; Long, 1996, 2007). This research relied solely upon recasts for the provision of feedback in task-based interaction. An example of a recast appears in (1). All examples were taken from data in the current study. “NNS” refers to a learner of intermediate Arabic and “NS” refers to the researcher. A list of Arabic letters and their respective phonetic symbols can be found in the Transliteration Key in Appendix A. International Phonetic Alphabet was used to represent Arabic consonants, and the sign for length (ː)
was used to distinguish among the six vowels of Arabic. Data was transliterated according to the recorded pronunciation of the speakers and not on the basis of Modern Standard Arabic (MSA) or any particular regional dialect. Since recorded Arabic interactions were oral, use of case markings by participants was rare.

(1) Recast

NNS: hal ʔamn .. ?amniŋja?

‘Do you have security (n.) .. security (adj.)?’

NS: taʔmi.n? la.

‘Insurance? No.’

NNS: la.

‘No.’

The example above contains an excerpt from a task in which the NS of Arabic, playing the role of a middle-aged Jordanian woman, provided Arabic input to the NNS to the effect that a fire had just consumed the better part of her residence. Taking part in the interaction, the NNS proceeded to ask whether the woman had insurance, except upon production of output it seemed that he was unsure about the correct morphological pattern for the word insurance. He then engaged in hypothesis testing by producing two variations of the root a-m-n, ‘to secure,’ one using a noun pattern and another using an adjectival pattern, but both were incorrect (coded in red). The NS interlocutor responded by providing the targetlike morphological pattern that the NNS was looking for (coded in green) in the form of an interrogative recast, i.e., using question intonation. This was then immediately followed by the answer to the NNS’s question, which was that the woman owned no insurance on the house. The NNS repeated the answer, ‘No,’ in an indication of his understanding and moved on with the conversation.

As apparent from this example, recasts are non-invasive forms of feedback; they provide learners with more targetlike language without causing a break in the flow of communication. As a result, most researchers consider recasts to be potentially effective for L2 processing. The semantic contingency of a recast on the learner’s original utterance increases the likelihood of understanding the interlocutor’s message. Long (2007) explained that
such semantic transparency could free up learner attention to focus on form, as the linguistic information recasts contain is already contextualized, the interlocutors’ attention is already in sync, and the utterances’ meaning may have already been internalized. The juxtaposition of a learner’s nontargetlike utterance against its more targetlike version has also been considered to set the stage for cognitive comparison of the contrasted forms, making form-meaning-function mappings increasingly more likely (Doughty, 2001). Moreover, recasts are unique in their dual provision of positive and negative evidence (Leeman, 2003; Sagarra, 2007); they signal incorrectness in learners’ utterances as they adjacently provide models for learners to follow. Enhanced salience of positive evidence, in particular, has been found to be implicated in the utility of recasts (Leeman, 2003). Furthermore, recasts are custom-made reactive responses to learners’ individualized L2 production, which means they provide linguistic models at the precise moment learners need them (Mackey, Gass, & K. McDonough, 2000). Still, a few researchers – as examined next – have expressed doubts concerning the efficacy of recasts in L2 processing and eventual L2 learning (e.g., Lyster, 1998a, 1998b; Lyster & Ranta, 1997; Panova & Lyster, 2002).

*Skepticism about efficacy*

Researchers who questioned the efficacy of recasts commonly cited three problems. Firstly, uncertainty was voiced as to whether recasts actually occur in L2 classrooms (e.g., Foster, 1998). Secondly, unlike negotiations for meaning, recasts do not necessarily make participatory demands on learners. As a result, some researchers became apprehensive about the developmental potential of recasts, since – upon their provision – they risk being perceived by learners as communicative (Lyster, 1998a, 1998b) or confirmatory (Kim & Han, 2007) rather than corrective as the interlocutors originally intended (Mackey et al., 2000). Thirdly, studies analyzing recasts in classroom interaction – which incidentally dismisses the first problem – have found them to be ineffective in eliciting immediate learner-generated reactions to teachers’ corrective feedback, or *uptake* (Lyster, 1998a, 1998b; Lyster & Ranta, 1997; Panova & Lyster, 2002), particularly when compared to more overt types of feedback called *prompts*, such as clarification requests, metalinguistic feedback, repetition, and elicitation (e.g., Ammar, 2008; Ammar & Spada, 2006; R. Ellis, 2007; Lyster, 2004; K. McDonough, 2007). As elaborated in the following section, these problems have been countered with contradictory findings from interaction research on recasts (e.g.,
A strong case against the last claim, in particular, that recasts are not as effective as prompts, has also been made by Goo and Mackey (2010).

Support for efficacy

Counterarguments to skepticism in regards to recast efficacy indicated that there is ample evidence that recasts occur in L2 classroom interaction (e.g., Gass et al., 2005; Mackey, 2006b; Mackey, Al-Khalil, Atanassova, Hama, Logan-terry, & Nakatsukasa, 2007; Mackey, Polio & K. McDonough, 2004). Besides, even if learners construed recasts as communicative or confirmatory, they were still gaining information confirming form-meaning associations as a result of exposure to the positive evidence component of recasts (Leeman, 2003, 2007). As for absence of substantial uptake with recasts, some studies did report uptake with recasts when opportunities for uptake were given (e.g., Oliver, 1995). Furthermore, it was argued that there is no reason to assume that learning only happens with uptake or that uptake is L2 learning (Long, 2007). In fact, immediate repetition of feedback has not been found to be necessarily related to L2 learning (e.g., K. McDonough & Mackey, 2006), lending support to Gass’ (2003) suspicion that immediate uptake may possibly be more an act of learner parroting – devoid of any understanding – than a tell-tale sign of developmental progression. Successful repair of errors (Egi, 2010) and primed production (McDonough & Mackey, 2006), not mere uptake, have been found to be more beneficial. Furthermore, unlike other types of interactional feedback, recasts were found to be constrained by working-memory capacity (Mackey, 2006b) and context (Oliver & Mackey, 2003), the latter of which rarely offers opportunities for uptake with recasts in the fast-paced environment of the L2 classroom. In spite of contextual constraints, however, lack of opportunities for modified output does not detract from the efficacy of recasts. A meta-analysis of 28 interaction studies by Mackey and Goo (2007) found that interaction without opportunities for modified output, as is the case with recasts, contributes more to the acquisition of linguistic targets than interaction with opportunities for modified output. Moreover, research indicated that the developmental benefits of recasts are actually delayed (Mackey & Goo, 2007; Mackey & Philp, 1998), as adult learners require thinking or processing time before interlanguage restructuring can take place and L2 developmental benefits are demonstrated (Gass, 1997; Gass & Varonis, 1994; Mackey, 1999; Mackey & Philp, 1998; Mackey et al., 2002). This finding was
confirmed by Mackey and Goo’s meta-analysis, which demonstrated that the efficacy of interaction on learner performance is significantly greater in both short and long delayed post-tests than in immediate tests. Thus, equating response to recasts, or uptake, with learning in interaction may be a red herring as Mackey and Philp (1998) predicted.

Making “a case against the case against recasts”, Goo and Mackey (2010) further delineated problematic methodological tendencies common to studies conducted in the skeptic camp, which likely contributed to their claims of recast inefficacy. Five “moot issues” were discussed in detail. The first was that modified output opportunities were not controlled. Since modified output can lead to focus on form, noticing, and hypothesis testing – as mentioned earlier (Swain, 1995, 1998) – failing to control for modified output may have significantly altered the results of some studies. The second issue was that recasts, a single condition of feedback, were often compared with prompts, a composite condition which often included multiple forms of feedback (e.g., metalinguistic feedback, elicitations, repetitions, etc.), which likely skewed research results in favor of the efficacy of prompts. The third issue concerned how form-focused instruction often preceded analysis of recasts and prompts in studies which compared the efficacy of the two forms of feedback, mostly because prompts are purported to work with linguistic items of which learners have some knowledge. However, Goo and Mackey argued that form-focused instruction in these studies was a potential confounding variable, as any impact from feedback delivered via recasts or prompts may have been due to the mediating role of form-focused instruction. The fourth issue related to the lack of control for prior knowledge, as some studies evidenced little room for improvement from the outset. Finally, out-of-experiment exposure, which Goo and Mackey granted was difficult to control for, ought to at least be considered because improved performance may very likely be the result of activation of prior knowledge of certain structures. These methodological concerns, the authors contended, limit the validity of the results sometimes cited to detract from the efficacy of recasts.

The reservations of a handful of researchers notwithstanding, recasts have been empirically found to be facilitative routes to L2 learning in numerous studies (e.g., Leeman, 2003; Long, 2007; Mackey, 1999; Mackey & Goo, 2007; Mackey & Oliver, 2002; Mackey & Philp, 1998; Mackey & Silver, 2005; K. McDonough, 2005; K.
McDonough & Mackey, 2006; Oliver, 1995; Philp, 2003; Révész & Han, 2006; Sagarra, 2007; Trofimovich, Ammar, & Gatbonton, 2007). The cognitive function of noticing is posited by the interaction approach to be at the heart of developmental benefits of feedback. Hence, a discussion of the role of attention and awareness in SLA is turned to next.

2.2. Attention and Awareness

The interactional processes reviewed above (input, interaction, output, and feedback) have a common operating cognitive undercurrent as the key to their developmental efficacy. This undercurrent is noticing, the subjective correlate of attention (Schmidt, 2001). Noticing constitutes the larger part of why interaction drives L2 learning. Second language learners are awash in an overwhelming stream of L2 input. Naturally, not everything in this “information bath” (Sharwood Smith, 1993, p. 166) is taken in by learners. In fact, only a fraction of that input is internalized, and even less of that is fully understood as intended (Kim & Han, 2007; Mackey et al., 2007; Roberts, 1995). It is only through attentional devices that learners are able to select which stimuli to tune into and which to tune out (Gass, Svetics, & Lemlin, 2003). What fragments of input that do make it through become intake (Chaudron, 1985; Corder, 1967), which then are either processed further to become potential knowledge or simply disappear. Further processing of intake triggers reformulations in learners’ developmental linguistic systems, which may induce changes in underlying intuitions about the target language (Schmidt, 1990, 2001). Since noticing is an attentional construct, and those are notorious for being conceptually and terminologically confusing, the terms attention and awareness in SLA are disambiguated below (for a review, see Leow & Bowles, 2005; for an argument for empirical differentiation between attention and noticing, see Godfroid, Housen, & Boers, 2010; for a forward-looking discussion, see Robinson, Gass, Mackey, & Schmidt, forthcoming).

2.2.1. Attention

In psychology-based research attention is one of the basic mechanisms in an information system. Posner and Petersen (1990) described attention in terms of three networks: alertness, orientation, and detection. Alertness is the general state of readiness to receive input, orientation is the alignment of attentional resources to a particular
stimulus from among a host of stimuli, and detection is the cognitive registration of a stimulus which does not necessitate awareness. Furthermore, five assumptions are considered to underlie attention in cognitive psychology (Schmidt, 2001): (a) attention is limited in duration as well as in the number of stimuli which may be attended to simultaneously (Skehan, 1998); (b) attention is selective, as evident in learners’ attention to meaning at the expense of form when processing L2 input (e.g., VanPatten, 1990); (c) attention can be subject to voluntary control through prior orientation; (d) attention is essential for learning (Schmidt, 2001); and (e) attention controls access to consciousness, as only selected stimuli are represented in conscious awareness, whereas unselected stimuli remain unconscious.

In the fields of cognitive psychology and SLA opinions vary as to the amount and type of attention necessary for learning (Dulany, Carlson, & Dewey, 1984; Reber, 1993; Robinson, 1995, 2003; Schmidt, 1990, 1995, 2001; Simard & Wong, 2001; Tomlin & Villa, 1994). Focusing only on the field of SLA, Tomlin and Villa (1994) proposed that the same attentional levels of alertness, orientation, and detection proposed by Posner and Peterson (1990) are in operation in SLA. Both orientation and alertness are believed to enhance the likelihood of detection, yet detection (which includes attention but not awareness) is all they deemed necessary for language learning. That is, awareness to Tomlin and Villa is not a required condition for further processing of linguistic input. Mere detection of stimuli within the realm of subsidiary attention, they argued, is the minimal condition for further processing. Richard Schmidt (1990, 1995, 2001, 2010), however, argued that noticing, which includes “awareness at a very low level of abstraction” (Schmidt, 2001, p. 5), is “the first step of language building” (p. 31). In his Noticing Hypothesis (further elaborated below), he specified that “learners must attend to and notice linguistic features of the input that they are exposed to if those forms are to become intake for learning” (Schmidt, 2010, p. 724). Peter Robinson’s (1995, 2003, 2008) position consolidated the two aforementioned proposals by concurring with Schmidt in that no new L2 learning can occur without awareness and by placing Tomlin and Villa’s component of detection at a stage preceding that of noticing in the language learning process. Thus, noticing is defined by Robinson (1995) as detection plus rehearsal in short-term or working-memory. So, once the
spotlight of consciousness is cast on detected stimuli in working-memory, the stimuli become noticed and – depending on the extent of rehearsal – further incorporated into long-term memory.

2.2.2. Awareness

Awareness refers to the individual’s subjective experience of a stimulus or cognitive content. Three levels of awareness have been addressed in the literature (Schmidt, 1990): perception, noticing, and understanding. Perception is the registration of stimuli below the level of subjective awareness. Plentiful evidence suggests that subliminal perception occurs, especially with familiar stimuli, but Schmidt (1995) argued that there is little evidence which proves that perception of this type demonstrates subliminal learning. Consequently, the most the perception level of awareness can lead to, in Schmidt’s opinion, is implicit learning of familiar stimuli. The learning of a second language – or anything unfamiliar, for that matter – is considered highly unlikely through subliminal perception alone (Schmidt, 1990). The second level of awareness is noticing, the “registration of the occurrence of a stimulus event in conscious awareness and subsequent storage in long term memory” (Schmidt, 1994, p. 179). It is limited to elements of the surface structure of utterances in the input, related to rehearsal within working memory, and involved in the transfer of information to long-term memory (Schmidt, 2001). Reading provides an apt illustration of the distinction between perception and noticing. Readers often notice the content of what they are reading while perceiving other, often qualitatively different, stimuli, such as the writer’s style, the music playing on the radio, or background noises outside a window (Schmidt, 1990). Understanding is the third and highest level of awareness. It is defined as “recognition of a general principle, rule or pattern” (Schmidt, 1995, p.29). It is related to the organization of material in long-term memory, to restructuring, and to system learning. Understanding represents a deeper level of awareness than noticing since it is associated with the processing of underlying rules related to semantic, syntactic, or communicative meaning (Schmidt, 1995). Schmidt (2010) distinguished between the roles of noticing and understanding by stating that “noticing is necessary for SLA, and that understanding is facilitative but not required” (p. 725).
Levels of awareness have been empirically tested in SLA in a number of studies inspired by the innovative experimental work of Ronald P. Leow (Hama & Leow, 2010; Leow, 1997, 1998, 2000; Rosa & Leow, 2004; Rosa & O’Neill, 1999; Sachs & Suh, 2007). In each of these studies, online think-aloud protocols, among other elicitation procedures, were used to measure awareness. Results could be summed up as follows: (a) high aware groups (exhibiting awareness at the level of understanding) significantly outperformed unaware and low aware groups (exhibiting awareness at the level of noticing) on post-exposure tasks (Leow, 1997, 2000; Rosa & Leow, 2004; Rosa & O’Neill, 1999; Sachs & Suh, 2007); (b) awareness and intake are strongly correlated (Rosa & Leow, 2004; Rosa & O’Neill, 1999); (c) awareness increases learners’ ability to recognize morphological (Leow, 1997, 2000) and syntactic (Rosa & O’Neill, 1999) structures on post-tests; and (d) meta-awareness correlates with increased usage of hypothesis testing and morphological rule formation, whereas absence of meta-awareness appears to correlate with an absence of such processing (Leow, 1997).

Some experimental studies, such as those conducted by John N. Williams (2004, 2005; Leung & Williams, 2011), have contended that L2 learning can occur without awareness, but these studies have been challenged in the field. For example, in Williams (2005) participants were exposed to a miniature noun class system which used four novel determiners with English nouns: gi and ro are the English equivalents of near, while ul and ne are equivalents of far. Moreover, gi and ul are used with animate nouns, while ro and ne are used with inanimate nouns. Each sentence presented to the participants in the training phase contained one of the four determiners with an English noun. Participants were asked to (a) listen to the sentence, (b) indicate if the novel word meant “near” or “far”, (c) repeat the sentence aloud, and (d) create a mental image of the situation described by the sentence. To test the participants learning of the animacy rule, they were presented with a multiple-choice written task which required them to choose the correct noun phrase out of two options (one animate and one inanimate) to fill in sentence blanks. Upon completion participants were asked what criteria they had used to make their choices. The results showed that most participants classified as unaware (made no references to animacy) were able to choose the correct noun phrase during the assessment task at a level significantly above chance, suggesting that the animacy rule was learned without awareness. However, participants in Williams’ studies were from a variety of L1
backgrounds, and subsequent analysis found that the participants who spoke gendered L1 languages performed significantly better than those who did not. Therefore, Hama and Leow (2010) extended Williams’ (2005) study using a more refined experimental design. They gathered on-line concurrent data during the testing phase (instead of solely relying on off-line retrospective data), expanded the multiple-choice items from two to four so that animacy/non-animacy and near/far options were represented, added a production task to the multiple-choice task, and maintained the same oral modality for both training and testing phases (instead of using an oral mode for training and a written mode for testing). Any participants who made comments on some aspect of animacy during or after the testing phase were eliminated, ensuring that only participants unaware of the animacy rule remained in the sample. Results indicated that carefully-screened unaware learners performed significantly above chance as they had in William’s (2005) study, but that their performance was not a result of their learning of the animacy feature of the novel words; rather, it was a product of their reliance on distance information from the context of the tasks of which they were aware. Thus, Hama and Leow asserted that there appears to be no dissociation between awareness and L2 learning.

2.2.3. Noticing

The Noticing Hypothesis (Schmidt, 1995, 2001, 2010; Schmidt & Frota, 1986) specifically states that only stimuli that are noticed by learners in the input become intake for potential learning. It originated from a diary study conducted by Schmidt and Frota (1986) which documented Richard (R) Schmidt’s learning of Portuguese during a five-month stay in Rio de Janeiro in Brazil. Extensive diary entries written by R were compared with his tape-recorded daily interactions with native speakers. Schmidt remarked that “a search of the diary notes indicated that the forms that I produced were those that I noticed people saying to me” (Schmidt, 1990, p. 140). As a result, Schmidt and Frota (1986) suggested that, in addition to comprehensible input, prevalently believed to be influential at the time, second language acquisition requires noticing. This requirement was substantiated by observations from Schmidt’s (1983) longitudinal study on Wes, who showed that naturalistic exposure to input alone was insufficient for L2 grammar acquisition. Wes was a 33-year-old adult native speaker of Japanese acquiring English in Hawaii without formal instruction. An analysis of his English over a three-year period revealed that, though he
was communicatively capable, he did not demonstrate targetlike use of short bound inflections marking grammatical meaning. Schmidt (2010), commenting on Wes’ limited morphology development, stated “I concluded by proposing that, at least in the case of adult learning of grammar, wholly unconscious learning of a language is probably not possible … some level of conscious attention to form is required” (p. 723). Specifically, noticing the gap, making conscious comparisons between output and target language input, is needed to overcome errors (Schmidt, 2010; Schmidt & Frota, 1986).

2.2.3.1. Objections to the Noticing Hypothesis

Different aspects of the Noticing Hypothesis have been met with criticism, but Schmidt (1995, 2001, 2010) addressed these objections directly, as detailed in the section below. Tomlin and Villa (1994), for instance, indicated that diary studies – such as the one which gave rise to the Noticing Hypothesis (Schmidt & Frota, 1986) – were too coarse when it came to temporal granularity, as attentional processes take place in microseconds whereas diary studies span periods of weeks and months. Tomlin and Villa (1994) also did not necessitate awareness in their attentional subsystem of detection. Only registration below the subjective level of awareness was required for further processing of stimuli in their view. Additionally, the notion that noticing was essential for all learning was challenged. Gass (1997) cited studies in which learning of higher level relative clauses was demonstrated after exposure to different simpler clauses, i.e., without their availability in the input. Also, Schachter (1998) agreed that the lexicon, the phonetic inventory, and writing systems require attentional focus, but stated that she was not “in the least willing to say that learning phonological, morphological and syntactic rules requires this attentional focus” (p. 574), with attentional focus assumed here to refer to noticing. To Schachter, attentional focus on regularities which underlie the data has no effect on learning, but is rather a by-product of learning. Moreover, Carroll (1999, 2001, 2006), from a generativist perspective, noted that there are aspects of language that learners can never be aware of, as phonemes, syllables, morphemes, nouns, verbs, etc. exist in the mind, not in the input, meaning they cannot be noticed. The only level of representation which presents itself to awareness, according to Carroll, is the phonological level (see Sachs, 2010 for challenging evidence of learning of surface-level regularities not instantiated phonologically from visual-spatial feedback in the form of tree diagrams). Truscott (1998) also
argued that the Noticing Hypothesis is unfalsifiable, given the difficulties of precisely measuring awareness. He added that the hypothesis was not based on a coherent theory of language and that noticing alone could not be responsible for comparisons done on the part of the learners, as unconscious comparison processes may be at play. Moreover, the benefits the hypothesis purportedly reaps from form-focused instruction need not be the result of increased noticing, he remarked, but could very much be the result of improved comprehension. Truscott then suggested a narrower reformulation of the hypothesis (a weaker view of noticing) stating that “the acquisition of metalinguistic knowledge is tied to (conscious) noticing; development of competence is not” (p. 124) and suggesting that noticing may be “helpful but not necessary” (p. 126) for language learning.

2.2.3.2. Responses to objections

In a recent review of attention and awareness, Schmidt (2010) countered most of the aforementioned objections. To Tomlin and Villa (1994), who considered diary studies too coarse, Schmidt responded by stating that diary studies are no longer the only means of measuring noticing, since retrospective (e.g., stimulated-recall methodology), online (e.g., note-taking and think-aloud protocols), and eye-tracking measures have become more widely used instruments in analysis of noticing data. As to Tomlin and Villa’s assertion that detection without awareness is the minimal requirement for further processing of stimuli, Schmidt reiterated what he had made clear in earlier articles (Schmidt, 1995, 2001): that subliminal perception of already established representations was possible, but subliminal learning of new material was not. To those who argued that noticing may be necessary for some kinds of learning but not others (e.g., Gass, 1997), Schmidt (2010) indicated that “the Noticing Hypothesis needs to be more carefully formulated” (p. 728), adding that if there were cases in which input is truly not required for learning, then the Noticing Hypothesis is “irrelevant rather than wrong” (p. 728). As for Schachter’s endorsement of implicit learning of certain language forms, Schmidt acknowledged the existence of some studies which claimed that learning does not require attention (he did not specify whether he was referring to attention with or without awareness), but emphasized that the “bulk of the evidence” in experiments indicates that no learning occurs without attention (again, with no reference to awareness level). Finally, in response to Carroll’s and Truscott’s objections, Schmidt remarked that notions of attention, noticing, and understanding are more
compatible with instance-based, construction-based, and usage-based theories than generative theories, though a role for noticing in the learning of functional morphology, especially, has been supported by some in the generative tradition (e.g., Lardiere, 2009).

2.2.3.3. Factors influencing noticing

The current consensus is that noticing is beneficial because it provides intake for potential L2 learning (e.g. Doughty, 2001; Doughty & Williams, 1998; Gass, 1997; Gass & Mackey, 2006, 2007; Hama & Leow, 2010; Long, 1996, 2007; Long & Robinson, 1998; Mackey, 2006b; Mackey et al. 2000; Philp 2003; Robinson, 1995, 1996; 2002; 2003, 2008; Robinson et al., forthcoming; Schmidt, 1990; Schmidt & Frota, 1986; Schmidt, 2010; Sharwood Smith, 1993; Swain, 1995, 1998, 2005). Yet, noticing is not guaranteed by mere provision of feedback. Mackey (2006b), for instance, found that noticing was positively related to L2 development only in the case of question formation, where 83% of those who noticed the form appeared to have learned it. Plurals and past tense forms were only noticed and apparently learned by 50% and 20% of learners respectively. Investigating factors which influence learner noticing has thus become a prominent interest of interaction research. Potential influential factors identified so far include salience (Schmidt & Frota, 1986), frequency (N. Ellis, 2002a ,2002b; Schmidt, 1990; Skehan, 1998), skill level (Mackey & Philp, 1998; Mackey et al., 2002; Philp, 2003; Trofimovich et al., 2007), type of instruction (Lyster & Mori, 2006), language domains of targeted forms (Mackey, 2006b; Mackey et al., 2007; Mackey et al., 2000), language background (Alanen, 1995), language learning aptitude (Robinson, 1996), and working-memory (Mackey et al., 2002; Mackey & Sachs, in press; Philp, 2003; Skehan, 1998).

Language learning motivation, the individual difference variable of primary interest to this research, has not been extensively investigated in relation to noticing or any other index of L2 interaction behavior, for that matter. An ideal context for its investigation was deemed to be task-based interaction for reasons explained below.

2.3. Task-Based Interaction

Second language task-based interaction came into being as a reaction to the structuralist teaching approach of the 1950s and 1960s, which relied on synthetic syllabuses that introduced learners to L2 structures one at a time
and assumed that learners would retain and later synthesize these structures in real-life communication. This “one-size-fits-all” (Long, 2005a) approach was later found to be lacking because learning structures individually made for good test scores but poor spontaneous speech (Long, 2005a), language structures were found to be interdependent and not acquired one at a time (Long, 1990; Skehan, 1998), and the sequences of structures in many synthetic syllabuses were found to conflict with developmental stages of second language learning (Pienemann & Johnson, 1987). The communicative teaching approach of the 1970s and 1980s de-emphasized such systematic treatment of language structure, opting instead to process language only for meaning. This grammarless approach did lead to considerable levels of success in activities requiring L2 listening and reading abilities, but learners still emerged with limited L2 end-states of fossilization (e.g. Wes in Schmidt, 1983) or poor oral L2 production abilities (e.g. students in French immersion schools in Canada, Harley & Swain, 1985). It was only with the emergence of input-processing models (e.g., Chaudron, 1985) at the end of the 1980s that methods of language teaching began aligning themselves with insights from cognitive psychology on how L2s are acquired. As explained earlier, input came to be realized as most useful when made comprehensible by elaboration, interaction came to be understood as most fruitful when enriched by negotiations for meaning and recasts, and language learning improved when L2 production was required of learners, as these interactional processes together heightened learners’ attention to L2 forms and potentially facilitated further processing of the L2. Task-based language teaching (TBLT) emerged within this cognitively and empirically informed research context.

2.3.1. Defining ‘Task’

In TBLT tasks are the basic conceptual units through which L2 learning could be realized (e.g., Crookes & Gass, 1993a, 1993b; R. Ellis, 2003; Foster, 1998; Foster & Skehan, 1996; Long, 1985; Long & Crookes, 1993; Samuda & Bygate, 2008; Skehan, 1998; Skehan & Foster, 1997, 1999; Van den Branden, 2006a; Van den Branden, Bygate, & Norris, 2009). Some researchers have defined tasks simply as “the things people will tell you they do if you ask them and they are not applied linguists” (Long, 1985, p. 89). Others have offered more detailed definitions, such as that provided by Skehan (1998), which states that a task is “an activity in which: meaning is primary; there is some communication problem to solve; there is some sort of relationship to comparable real-
world activities; task completion has some priority; the assessment of the task is in terms of outcome” (p. 95). In this research, Samuda and Bygate’s (2008) definition is adopted, where a task is a “holistic activity which engages language use in order to achieve some non-linguistic outcome while meeting a linguistic challenge, with the overall aim of promoting language learning, through process or product or both” (p. 69).

2.3.2. Underpinnings of Task-Based Language Teaching

The most basic notion of TBLT is that language is best acquired in the context of functional use (Long, 1981; Long & Crookes, 1993; Norris, 2009). It has its roots in Dewey’s (1933) concept of experiential learning, which posits that learning is optimized when learners engage in “activities worthwhile for their own sake” (p. 87), as only language that is used meaningfully is usually retained by learners. Illich (1971) noted the following about learners:

Pressed to specify how they acquired what they know and value, [they] will readily admit that they learned it more often outside than inside school. Their knowledge of facts, their understanding of life and work came to them from friendship or love, while viewing TV, or while reading, from examples of peers or the challenge of a street encounter. (p. 72)

Task-based language teaching helps recreate the feel of outside-classroom experiences inside the L2 classroom. It does away with the traditional distinction between the syllabus (what is taught) and the teaching methodology (how to teach), and relies solely on the task as a vehicle for provision of comprehensible input, engagement in interaction, production of pushed output, and promotion of noticing of L2 form (Van den Branden, 2006b).

2.3.2.1. Task as a vehicle for input

In task-based interaction, learners are exposed to rich input of real spoken and written language as it is actually used. Tasks are realistic pedagogic variants of real-world target activities. They are holistic in the way they invite learners to deal with the different aspects of language all at once, i.e., in the exact way language is normally used. Learners have to plan what they have to say (no scripted lines for rehearsal), how to say it (no
particular formal structures to focus on), and in what order (no syntactic frames are practiced). This places the learner in an utterance formulation context that is interactionally and cognitively similar to real-world target situations.

2.3.2.2. Task as a vehicle for interaction

The more competent interlocutor in task-based interaction does not provide an immediate solution to the problem confronting learners. Instead, the interlocutor adopts an on-the-spot responsive interactional style, one in which the learner is nudged towards further exploration of possible solutions for linguistic problems. The interlocutor adapts the quantity and quality of interactional support to the learners’ specific levels of readiness (Van Avermaet, Colpin, Van Gorp, Bogaert, & Van den Branden, 2006) and zones of proximal development (Vygotsky, 1978). In pair or group settings, interactants work collaboratively on tasks by providing support to recover language, negotiating for meaning and form, and structuring and focusing each other’s talk (Swain & Lapkin, 2002). Constructive interactions in search of solutions are expected to make a greater impact on learners’ processing and emerging interlanguage systems than more competent interlocutors merely offering them the answers (Bogaert, Van Gorp, Bultynck, Lanssens, & Depauw, 2006). Thus, the role of the teacher is no longer central in the language learning process. Rather, the teacher is seen as the more knowledgeable partner of the learner, the “facilitator and mediator of student’s learning processes, treating the student as someone actively constructing knowledge instead of passively receiving it” (Schrooten, 2006, p. 147). The provision of fine-tuned feedback by the teacher at close proximity to the functional use of linguistic forms increases its relevance and chances of incorporation (Doughty, 2001; Doughty & Williams, 1998; R. Ellis, 2003; Long, 2007; Mackey & Philp, 1998). As explained earlier, noticed feedback encourages the active formulation and reformulation of hypotheses, potentially leading to extensions in learners’ language resources.

2.3.2.3. Task as a vehicle for output

Tasks offer learners non-linguistic reasons for communicating, beyond practicing to do so. In other words, there is a clear criterion for success or failure, the achievement of a pragmatic task outcome through meaningful L2
use. Examples of such outcomes include serving the correct meal on an imaginary airplane (Long, 1985, 1998) or finding a specific journal article in a library using library technology (Robinson & Ross, 1996). Tasks pressure learners to produce output (Bygate & Samuda, 2009), even at beginner levels when learners lack the basic skills needed to complete tasks (e.g., Van Avermaet & Gysen, 2006). That is because output is considered a better barometer of learner language proficiency than a score on a fill-in-the-blank exercise (Colpin & Gysen, 2006). The goal of output is not the achievement of absolute correctness, but the investment of intense mental and interactional energy (Swain, 2005) to establish enduring form-meaning mappings (Skehan, 1998).

2.3.2.4. Task as a vehicle for promoting noticing

Tasks allow learners numerous chances to internalize input. Engagement with real-world tasks exposes the learners to input that is strongly associated with physical actions (e.g., visual, auditory, or tactile experiences) and/or with previous experiences and knowledge of the world. These types of input, not readily available in traditional language classes, provide “mental anchors” (Verhelst, 2006, p. 210) that facilitate learners’ conceptual grip on the meaning of the input. Samuda and Bygate (2008) posited that meaningful language use during task performance leads learners to notice relevant concepts for which resources are lacking; perceive the need for missing resources; notice resources used by the teacher or other learners to handle the conceptual problem; notice some of the similarities between the resources being used; notice additional aspects of resources the learner is already familiar with; extend familiar resources, and improve accuracy in using their own available resources. With such potential for noticing, task-based interaction provides an ideal context for the marriage of meaning and form (Skehan, 1998; Long & Norris, 2000) in natural, rather than artificial, contexts (Long, 2005b).

2.3.3. Designing Interaction Tasks

As indicated above, task-based interaction is a proposed alternative for teacher-dominated, form-oriented, artificial second language classroom practice (Long & Norris, 2000). Thus, when designing tasks, designers ought to ensure that tasks are “radically learner-centered” (Long, 2005a, p. 23), as the bulk of language learning lies on the shoulders of the learners themselves. This means that tasks must be relevant to learners, directly addressing
their functional needs for the L2. Tasks, however, do not “magically” lead to interaction. More often than not, uncarefully designed classroom tasks misfire in practice, inspiring little interaction and much less linguistic benefit (Bygate & Samuda, 2009). To guarantee learner engagement, tasks must be seen as interesting, useful, and valuable in their own right. That is, learners must adopt the target outcome as their own.

Several steps have been recommended for the design of useful tasks (Long, 2005b). First, a thorough needs analysis is recommended. Other steps include determining task difficulty, task complexity, and setting task conditions. Task difficulty is related to how learners individually perceive their capability to complete the task. Task complexity takes into account the information-processing demands of tasks on comprehension and production. Different tasks make differential demands on the attention, memory, and reasoning. For example, productive skills (speaking and writing) are believed to be more demanding for language learners than receptive skills (reading and listening). Task conditions refer to the manipulation of external pressures, such as the imposition of time pressure, distribution of information, and the extent of collaboration required in tasks to reach a solution. These conditions can be manipulated to induce learners to attend to form and override adult learners’ natural predisposition to process for meaning first (Doughty & Williams, 1998; R. Ellis, 2003; Long, 1998; Long & Norris, 2000; Skehan, 1998). Research has shown that manipulation of task conditions affects the amount of negotiation for meaning, making it possible to maximize the chances of learners’ noticing of particular forms (Doughty & Williams, 1998; Long, 1991; Norris & Ortega, 2000; Robinson, 2001; Swain & Lapkin, 2002). Task conditions include task familiarity, planning, and task repetition. Participation conditions include whether a task has an open or closed solution, whether task information goes one-way or two-ways, and whether participants’ goals converge or diverge. Participant conditions involve whether the groups or pairs are of the same or different proficiency level, same or different gender, or previously familiar or unfamiliar with one another. Only the needs analysis step is elaborated at length here because it is closely associated with the initiation and maintenance of L2 motivation.
2.3.4. Needs analysis

Not many language learning programs conduct analyses of their learners’ specific L2 needs. Skehan (1998) views needs analyses as “desirable” but not always logistically possible. Long (1998, 2005a), however, considers them “crucial,” since the ultimate goal of language learning is the satisfaction of the future communicative needs of learners and their sponsoring agencies. Empirical research has verified that learner needs are not uniform (e.g., Downey Bartlett, 2005; Kellerman, Koonen, & van der Haagen, 2005; Lett, 2005). Second language needs are learner or group-specific, tied to local contexts, and are susceptible to change over time. Task content should therefore be determined in terms of the real-world target tasks that learners need to be able to perform. Long (2005a) noted that L2 communication obstacles at work or academic environments are not always a result of lack of linguistic competence, but are often a result of learners’ inability to accomplish the tasks required of them by their jobs or academic programs. These tasks often require more L2 skills than linguistic knowledge, such as strategic competence (Jacobson, 1986), sociable and local norms of small talk (Holmes, 2005), interactive competence in transactional tasks (Downey Bartlett, 2005), intercultural proficiency (Vanderneeren, 2005), and domain-specific communicative competence (Gilabert, 2005; Jasso-Aguilar, 1999/2005; Kellerman, et al., 2005; Long, 2005b; Svendsen & Krebs, 1984). Conducting a needs analysis would isolate learners’ areas of need, ensuring that attainment goals of language activities match the L2 learning needs of learners (Long, 1998, 2005a). In other words, the central concern of needs analyses is relevance of both language and activity.

2.3.4.1. Sources

Long (2005b) recommended that language needs analysts compile and triangulate needs data from four sources: published and unpublished literature, language professions, learners, and domain experts.

Published and unpublished literature

A survey of available literature is instrumental in obtaining indications of the manner of task assessment, the particulars of performance standards, and the specific language expected to be used during tasks. Long (2005b)
found that the best sources for information on the tasks required of flight attendants and the language needed to successfully execute them were the cabin crew organizational chart, the flight operations manual, standard forms and routine flight paperwork, pre-service flight attendant training manuals, in-service re-certification manuals, and a book-length union contract.

**Language professionals**

The second source mostly, and at times exclusively, resorted to by needs analysts is language professionals (teachers and applied linguists). Though experts in the target language, their status as outsiders in relation to other domains like medicine, finance, and engineering renders their predictions of learner needs in non-linguistic domains minimal, incomplete, imprecise, and unreliable. Jasso-Aguilar (1999/2005) found that the language and tasks predicted by an outside task force preparing to design an ESL course for hotel housekeepers in Hawaii never actually materialized in her observations of day-to-day housekeeper interactions at the hotel. Downey Bartlett (2005) came across a similar mismatch when she compared the insights of language professionals about typical phrases learners might encounter in a coffee shop with those gained from actual data recorded at coffee carts on a university campus and coffee shops nearby. In stark contrast to the models presented in textbooks, Downey Bartlett’s findings indicated that customers mostly omitted polite request forms like “Can I get …?”; never mentioned the word *coffee* explicitly in their requests, usually asking for “two grande café mochas” or “the Americano”; and relied on a large amount of diexis – this/that, this one/that one, here/there – to complete their transactions.

**Learners**

The third source is the learners themselves who know better than anyone else what L2 skills they would like to focus on in L2 classes. There are those who dismiss learner insights as the only legitimate source for information on language needs (Auerbach, 1995). However, in cases where learners display a sense of familiarity with target domains, some learners have been found to provide useful and valid information (Ramani, Chacko, Singh, & Glendinning, 1988). Furthermore, discussions of learners’ perceived needs have been observed to raise
learners’ awareness of the purpose of language learning, leading to useful reflection on learning means and ends (Nunan, 1988, p. 5). Seasoned language learners (e.g., those at intermediate levels) have much to say about language teaching methodology, their own trajectory of learning, their desired level of attainment, and the specific tasks they would like to be able to do in the L2. Basically, these learners could identify their anticipated uses for the language they are studying far more accurately than any other source. English majors in Hungary, for instance, specified in Kormos, Kontra, and Csolle (2002) that they needed English in four situations: to read texts on the internet, to be able to consult monolingual dictionaries, to express an opinion, and to conduct job-related conversations. Knowledge of learner wants (learners’ view on their needs) in this case can guide the language teacher in selecting tasks which promote the skills sought by learners. It also devotes class time in its entirety to the goals expressed by learners instead of covering all the chapters in the textbook and hoping that some aspects of it are of relevance to learners.

Domain experts

The last source, domain experts, are those who actually perform the jobs that require the L2. These are doctors, professors, engineers, journalists, etc. whose knowledge of subject matter is considered essential to the identification of learners’ language needs. Jasso-Aguilar (1999/2005) found that the executive housekeeper was the source who most accurately outlined the tasks hotel maids completed on a daily basis. Gilabert (2005) also found that it was a Catalan journalist who revealed what upcoming journalists actually do in the newsroom. Journalism scholars and administrative company representatives in Gilabert’s study predicted that journalists would need to skim and scan different English texts in order to select information for articles, but in reality, the domain expert explained, the routine was for journalists to simply translate from English news wires.

2.3.4.2. Methods

Not only is the use of multiple sources advocated when conducting a comprehensive needs analysis, but the collection and triangulation of data from multiple methods is encouraged as well (Long, 2005b). This is believed to add breadth and depth to the analysis, while providing means of the validation of findings.
Unstructured interviews, questionnaires, structured interviews, and participant and nonparticipant observations are among the methods recommended for use.

Unstructured interviews

Gaps in published and unpublished literature may be filled by conducting unstructured interviews with language experts (teachers), domain experts, and learners. These interviews are open-ended, thus allowing analysts to obtain in-depth insider knowledge that is particular to the specific needs under investigation. They are especially helpful as exploratory tools to familiarize analysts with the specifics of different domains. They are also useful in building rapport with informants, obtaining the necessary authorization to collect materials, and identifying additional informants (Gilabert, 2005).

Questionnaires

Questionnaires might subsequently be designed on the basis of results from the literature survey and the unstructured interviews. These ascertain the pervasiveness of existing views, and offer researchers broad coverage of large samples of respondents. Their fixed closed-item format is designed to capture sizeable amounts of focused, standardized, and easily-coded data in a manner that is both quick and affordable.

Structured interviews

The benefits of questionnaires may be maximized by administering them orally in the form of in-depth structured interviews. These consist of lengthy lists of pre-defined questions which are filled out by the interviewers face-to-face or by telephone. The standardized nature of these interviews reduces the time needed to complete them, simplifies the data-coding process, and eases comparison across respondents. Unlike questionnaires, structured interviews allow researchers to make sure all the questions have been answered, clarify any misunderstandings, and ask respondents to elaborate upon unanticipated or overlooked points of interest in their responses.
Participant and non-participant observation

Information could also be gleaned via participant or non-participant observation of actual target language use. This method allows needs analysts to directly witness the natural environment of study, take note of the activities required of learners, and collect representative target discourse samples for later use in the preparation of pedagogic materials. Most importantly, it allows analysts to assess the reliability of other sources by facilitating comparison between reported needs and those observed by analysts themselves. Participant observation proved to be the most useful method in Jasso-Aguilar’s (1999/2005) study on the needs of hotel housekeepers.

Other methods available to needs analysts include proficiency measures (e.g., grades from language tests) and learner records, such as diaries, journals, and logs. Language tests yield information on language skills, and help delineate the gap between learners’ present abilities and their needs. Learner records form an introspective window through which researchers can monitor learners’ evaluation of their own attainment of program objectives.

2.3.4.3. Academic needs analysis

Interestingly, most needs analysis studies have focused on the identification of language needs for specific purposes (e.g., healthcare and housekeeping). One study investigated academic language needs. Chaudron, Doughty, Kim, Kong, Lee, Lee, Long, Rivers, and Urano (2005) conducted a task-based needs analysis of all the students enrolled in 100-level through 400-level Korean as a foreign language classes at the University of Hawaii. Their sources included teachers, future employees (domain experts), and the students themselves. Unstructured interviews were conducted with the instructional staff and a stratified random sample of 25% of the students. The interviews were screened for specific information pertaining to students’ perceived wants and needs in taking a Korean course. These interviews focused on questions concerning demographic characteristics, reasons participants had been to Korea or were planning to go, reasons for studying Korean, current or future professional uses anticipated for Korean, specifics of language skills they expected to need, and task-related language abilities they could identify as necessary when in Korea or in future employment. Of course, most of participants’ suggestions appeared to be recognition of possibilities, rather than concrete plans. On the basis of these interviews,
a survey questionnaire was administered to the entire student population for broader coverage. Results indicated that two social survival tasks were relevant to 90% of the respondents: “Following street directions” and “Shopping for clothing”. Using participant and non-participant observations, samples of authentic Korean performance of both tasks were collected by native speakers of Korean in Honolulu and Seoul. The information gleaned from the unstructured interviews, questionnaires, and target discourse analysis was then collectively used to design and develop two prototype modules of task-based materials, one for near beginners, and the other for second-year students, of Korean.

Incorporation of learner needs into task design has been argued to bolster learner L2 motivation. Crookes and Schmidt (1991) argued that tasks which appear to meet learners’ own expressed needs would pique learners’ interest and maintain their motivation, making tasks more efficient and more successful. Also emphasizing the importance of awareness of learner needs, Oxford and Shearin (1994) noted that “the source of motivation is very important in a practical sense to teachers who want to stimulate students’ motivation. Without knowing where the roots of motivation lie, how can teachers water those roots?” (p. 15). Moreover, Dörnyei and Csizér (1998) in their Ten Commandments for Motivating Learners recommended making L2 courses “personally relevant” to learners by “doing a needs analysis and adjusting the syllabus accordingly” (p. 217). Language learning motivation, however, is a complex construct, as outlined in the following chapter, and one of which precious little is known in the context of task-based interaction.
CHAPTER 3: SECOND LANGUAGE MOTIVATION

Second language motivation is the main psychological factor in explaining L2 achievement (Gardner & Lamber, 1972). It has been statistically found to have a “more than medium” effect size (.29-.39) on L2 achievement in a meta-analysis which included 75 studies and 10,489 individuals (Masgoret & Gardner, 2003). Although the pedagogical relevance of L2 motivation is great, motivation is one of the most elusive concepts in applied linguistics and in education psychology in general (Dörnyei, 1999). Motivation to learn a L2 is complex due to the multifaceted nature of language itself. Language is a communication code system, integral part of identity, and a channel for social organization all at once (Dörnyei, 1994a). Therefore, Gardner (1979, 1985) has long insisted that lumping L2 learning with other school subjects is “categorically wrong”. The complexity of L2 motivation stems from the facts that (a) it encompasses cognitive notions such as value, expectancy, self-efficacy, and attributions (Dörnyei, 1998); (b) it includes affective notions such as interest, enthusiasm, and internal satisfaction (Gardner, 1985); (c) it subsumes socio-psychological notions of L2 identity, L2 culture, and power relations (Dörnyei, 2005, 2009a; Gardner, 1985; Gardner & Lambert, 1959; Lambert, 1955; Norton Pierce, 1997); (d) it operates on a general trait-like level and a situational state-like level simultaneously (Gardner & Tremblay, 1998; Julkunen, 1989, 2001; Tennant & Gardner, 2004; Tremblay, Goldberg, & Gardner, 1995); (e) it is the property of the individual, but is amenable to external enhancement (S. McDonough, 2007; Noels, 2003); and (f) it is not static but dynamic and changes over time (Ushioda, 1996, 2001). Moreover, L2 motivation has been described as a “cause” of effortful behavior (Gass & Selinker, 2001) as well as a “result” of language learning achievement (Skehan, 1989). These conflicting yet logical observations about motivation led Hotho and Reimann (1998) to succinctly describe motivation as “simultaneously and paradoxically an input, a resultative and recursive phenomenon, a prerequisite as much as an objective and outcome of teaching and learning” (p. 140).

3.1. Defining Second Language Motivation

The Latin root of motivation, movere, means ‘to move,’ which suggests movement of behavior to a state of action (Melendy, 2008). The first definition of L2 motivation was provided by the two researchers who set L2
motivation research in motion, Gardner and Lambert (1959). They stated that motivation is the “effort and enthusiasm students show in their attempt to acquire the language” (p. 267). Keller (1983) added *choices* and *goals* to the definition of L2 motivation, explaining that motivation is “the choices people make as to what experiences or goals they will approach or avoid, and the degree of effort they will exert in that respect” (p. 389). Then in the full articulation of his socio-educational model Gardner (1985) formulated the definition most often used in L2 motivation research today, that L2 motivation is “the combination of effort plus desire to achieve the goal of learning the language plus favorable attitudes towards learning the language” (p. 10). This particular definition has survived more than 25 years of research for two main reasons. First, Gardner (1985) provided carefully-constructed and well-piloted measurement scales in his Attitude/Motivation Test Battery (AMTB) which matched each one of the three components. Second, Gardner’s proposed components of effort, desire, and attitudes towards language learning are consistent with recent conceptualizations of language being a complex dynamic system (e.g., N. Ellis & Larsen-Freeman, 2006) of conation (effort), cognition (desire), and emotion (attitudes towards language learning). Since only behavioral manifestations of motivation can be observed, and not motivation itself (Hotto & Reimann, 1998), many researchers have listed characteristics of the motivated individual in place of definitions (e.g., Crookes & Schmidt, 1991; Gardner, 2006; Gardner, Masgoret, Tennant, & Mihic, 2004; Masgoret & Gardner, 2003). In a nutshell,

The motivated individual expends effort, is persistent and attentive to the task at hand, has goals, desires, and aspirations, enjoys the activity, experiences reinforcement from success and disappointment from failure, is aroused, and makes use of strategies to aid in achieving goals. That is, the motivated individual exhibits many behaviors, feelings, cognitions, etc., that the individual who is unmotivated does not.

(Masgoret & Gardner, 2003, p. 128)

3.2. Background of Second Language Motivation Research

Many overviews traced the history of L2 motivation research from its inception in the late 1950s (see Clément & Gardner, 2001; Dörnyei, 1998, 2001, 2005; Dörnyei & Ushioda, 2011a; Gardner, 1985, 2001;
MacIntyre, Mackinnon, & Clément, 2009a; Ushioda & Dörnyei, 2009, forthcoming). Each review differs significantly from that preceding it, even if by only a year or two. That is because in addition to expanded empirical reports on existing research paradigms, these reviews – particularly those written by Dörnyei – have often included introductions to newly adapted models from psychological theory. The result has been an abundance of motivation models which may seem more confusing than helpful to the beholder at first, but are, in effect, responsible for the dramatic evolution in our understanding of motivation in language learning today.

Language learning motivation can be described to have gone through three major research periods, as outlined in more detail in the following sections: the socio-psychological period (1959-early 1990s), the cognitive-situated period (1991-early 2000s), and the socio-dynamic period (2002-present).

**3.2.1. The Socio-Psychological Period**

Until the late 1950s, the prevailing assumption in SLA had been that L2 achievement is largely due to linguistic aptitude alone. Robert C. Gardner and his mentor, Wallace E. Lambert, explored whether variables other than aptitude were implicated in L2 learning. In 1959, they hypothesized that L2 motivation probably played an important role, but measurement-related difficulties had precluded its direct investigation in previous SLA research. They were specific in their operationalization as to which type of motivation was most likely to influence L2 achievement: “the same type of motivation that is apparently necessary for the child to learn his first language” (Gardner & Lambert, 1959, p. 267). In support of their contention, they referenced Mowrer (1950) who stated that motivation to learn the first language originates from a child’s desire to be like valued members of the family, primarily the parents. The first language is basically the verbal repertoire of parents; their sounds, words, and phrases. The sounds of their words gradually come to carry reinforcement power as a result of the association the child makes between the pleasantness of her nurturers and the verbal characteristics of their behavior. By producing sounds similar to that of the parents, the child not only satisfies her basic need for communication, but also achieves some level of comfort and emotional fulfillment in their absence. The rewarding sensation that the child experiences by imitating her parents marks the foundation of her identification with them, and it is this emotional identification, according to Mowrer, that maintains the child’s motivation to perfect her grasp of her first
language. Gardner and Lambert predicted that a similar process, which they termed *integrativeness* to distinguish it from identification (Gardner & Lambert, 1972), was implicated in SLA. A second language is essentially the sounds, words, phrases, and grammatical structures of another cultural community. Therefore, they proposed that L2 achievement requires L2 motivation in addition to language aptitude, and this motivation is marked by a sense of identification and respect for the L2 community.

In their seminal exploratory study, Gardner and Lambert (1959) set out to test whether motivation was in effect associated with L2 achievement. They collected questionnaire data from 75 English-speaking Grade 11 high school students studying French in Montréal, Canada. Their measures included subscales for aptitude assessment adapted from Carroll and Sapon (1956) and three measures especially designed for the study: an orientation index, an attitude scale, and a motivation intensity scale. The orientation index included four statements representing reasons for studying French, two integrative reasons and two instrumental ones. The students were asked to rank the reasons according to personal relevance. Learners who studied the L2 to experience openness to other languages and cultural communities were coded by the researchers as having an “integrative orientation,” while learners who expressed utilitarian and functional reasons for L2 study were coded as having an “instrumental orientation”. Achievement ratings of oral skills and aural comprehension were collected for correlation. A factor analysis of the data indicated that two independent factors – not one as previously presumed – were directly related to achievement in French. The first was the expected factor of Linguistic Aptitude, and the second was Motivation, confirming the researchers’ contention that motivation was in fact implicated in L2 achievement. Most importantly, Gardner and Lambert found that the new factor they isolated referred to the type of motivation they had hypothesized to be of importance, one that is characterized by “a willingness to be like valued members of the language community” (p. 271, italics in original). The results indicated that integratively-oriented learners held more favorable attitudes towards French-Canadians, were more motivated to learn French, and more successful in their acquisition of French than those who were instrumentally-oriented.

Gardner and Lambert’s (1959) study was novel in many respects. It was the first to attempt to measure the fluid construct of motivation. It was also the first to provide empirical support for the oft-predicted influential role
of motivation in L2 learning. However, what it has been most credited for is its detection of integrativeness in the construct of motivation, i.e. the link it established between social attitudes and the cognitive and affective construct of L2 motivation. As pointed out by Gardner (1985), even when L2 learners are primarily motivated by instrumental motives, such as getting good jobs or improving their education, they are still displaying willingness to interact with other communities and openness to other cultures by deciding to study a second language. In essence, the main objective of learning a L2 is to communicate with another cultural community using their vocabulary, their word order, their idioms, and their ways of pronunciation. Thus, Gardner and Lambert (1959) concluded that learners’ emotional reactions towards the L2 and its speakers are implicated on some level in the L2 learning process.

Gardner later elucidated this notion in his socio-educational model of SLA (1985, 2000, 2001, 2006; Gardner & MacIntyre, 1993; Tremblay & Gardner, 1995), which posited parsimonious statements about the role of motivation in L2 learning. As illustrated in Figure 1 (adapted from Gardner, 2006), two distinct individual difference variables are assumed to facilitate second language achievement: Language Ability and Motivation. Language Ability encompasses Intelligence and Aptitude, while Motivation consists of the three previously mentioned components: Motivational Intensity (behavior), Desire to Learn the L2 (cognition), and Attitudes towards the L2 (affect). Language Anxiety is measured through the learner’s Class Anxiety as well as Use Anxiety. It has a reciprocally negative relationship with L2 achievement (as indicated by the bidirectional line) – that is, high achievement causes low levels of anxiety, and high anxiety has an inhibiting effect on L2 achievement. The tripartite construct of motivation, however, is the main driving force in the socio-educational model, and it is assumed to be both supported and influenced by two attitudinal foundations: Attitudes towards the Learning Situation and Integrativeness. The model evaluates the learning situation through Attitudes towards the L2 Teacher and Attitudes towards the L2 Course. As for Integrativeness, the model assesses it in terms of Integrative Orientation, Interest in Foreign Languages, and Attitudes towards the L2 Community. Instrumentality is identified as a third type of attitudes that could support motivation, but it is not predicted to influence motivation as profoundly (as indicated by the broken line). The three types of attitudes positively correlate with one another.
(as indicated by bidirectional lines connecting them). These attitudes do not affect L2 achievement directly; rather, they maintain motivation, which in turn directly facilitates L2 achievement.

Motivation in the socio-education model is considered to be the “engine” which energizes behavior and gives it direction. When attitudes towards the language learning situation and integrativeness combine with motivation (as grouped in the orange box) the learner is said to be driven by an integrative motive (Gardner, 1985). It is this type of integrative motivation that the proponents of the socio-educational model believe orients the students to capitalize on every opportunity possible to improve L2 proficiency (Gardner, 1983). This type of motivation was found to keep L2 learners active in class, maintain their enthusiasm for L2 learning, and increase their knowledge in the L2 (e.g., Gardner, 1979, 1983, 1985; Gardner & Lambert, 1959, 1972; Gardner & Tremblay, 1998; Gliksman, Gardner, & Smythe, 1982).

Figure 1. The socio-educational model with indicators.
3.2.2. The Cognitive-Situated Period

Decades later, the work of Gardner and Lambert on L2 motivation in Canada began to attract a new generation of researchers from different geographical locations and research backgrounds. Most of these researchers were impressed with the socio-educational model. They admired that it was grounded in social psychology, conceptually comprehensive, theoretically explicit, and empirically tested. They commended its construction of the AMTB (Gardner, 1985), which introduced state-of-the-art statistical techniques into a previously qualitative field and brought L2 motivation research to maturity (Dörnyei, 1994a, 2005). They also appreciated that the model explained a considerable amount of variance in learner motivation and achievement.

Yet with renewed interest in L2 motivation came a complete reassessment of the socio-educational paradigm, which brought to the fore a number of limitations. Criticism began tentatively with studies like Lukmani (1972), which found that – contrary to Gardner’s contention – instrumentality correlated more highly with L2 proficiency than integrativeness. Then review papers like Oller and Perkins (1978) appeared questioning the validity of the attitude measures used in Gardner’s research. Soon after, scathing critiques like Au (1988) meticulously outlined inconsistencies between research findings and Gardner’s arguments. Voices of dissent even emanated from within the socio-educational paradigm itself, with Clément and Krudinier (1983) disputing the cross-cultural pervasiveness of integrative and instrumental orientations in Canada. The model was accused of being so dominant that consideration of other motivational frameworks was not likely (Crookes & Schmidt, 1991), too confusing in terminology (Dörnyei, 1994b), too quantitative in its approach (Ushioda, 2001), inaccurate in its strong endorsement of integrative motivation (Dörnyei, 1990), and simplistic in its classification of L2 learning orientations as either integrative or instrumental (Clément & Krudinier, 1983).

In the early 1990s these rumblings broke into a thunderous call to “re-open” the L2 motivation research agenda (Crookes & Schmidt, 1991) in search of alternative research frameworks that would provide more explanatory power than the socio-educational paradigm (Clément, Dörnyei, & Noels, 1994; Crookes & Schmidt, 1991; Dörnyei, 1994a, 1994b; Julkunen, 1989, 2001; Oxford & Shearin, 1994; Skehan, 1989; Ushioda, 1996). This
movement was spearheaded by Crookes and Schmidt’s (1991) insightful exploration of future directions for L2 motivation research. It was then followed by a series of articles published in *The Modern Language Journal* (Dörnyei, 1994a, 1994b; Gardner & Tremblay, 1994; Oxford & Shearin, 1994) and two anthologies (Dörnyei & Schmidt, 2001; Oxford, 1996), which drew together fresh perspectives on L2 motivation from several disciplines. Collectively, these publications stressed the need for new research frameworks, because the existing paradigm contained problematic aspects, and suggested new venues for L2 motivation research to address areas overlooked by the existing paradigm. The result was a colorful inventory of alternative theoretical approaches (for detailed reviews, see Dörnyei, 2001, 2005). Researchers suggested considering cognitive frameworks such as self-efficacy (Bandura, 1982), attribution theory (Weiner, 1979), goal-setting theory (Locke & Latham, 1994), linguistic self-confidence (Clément, 1980), self-determination theory (Deci & Ryan, 1985), and neurobiology (Schumann, 2001).

They put forward a process-oriented model of L2 motivation to temporally account for the ebbs and flows of motivation (Dörnyei & Ottó, 1998, see also Dörnyei, 1998, 2000). They also focused on more situated aspects of language learning, such as state motivation (Gardner & Tremblay, 1994, 1998; Gardner, Tremblay, & Masgoret, 1997; Julkunen, 1989, 2001; Tennant & Gardner, 2004), task motivation (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004), and willingness to communicate (MacIntyre, Clément, Dörnyei, & Noels, 1998).

Since it is more meaningful for L2 motivation to be understood with reference to specific learning contexts, Dörnyei (2001, 2002) suggested that language learning tasks offer the most situated manner in which L2 motivation may be examined. Around the time of this proposal, tasks had become increasingly attractive to SLA researchers as platforms for theoretical inquiry into general L2 learning behavior because they break down the learning process into clearly defined segments, allowing fine-grained analysis of any number of cognitive, affective, and behavioral dimensions of L2 processing (Crookes & Gass, 1993a, 1993b; Foster & Skehan, 1996; Robinson, 1995; Skehan, 1998; Skehan & Foster, 1997, 1999). Aptitude had been investigated in relation to cognitive task demands and constraints (e.g., Robinson, 1996), but not L2 motivation. The first to explore motivation in the context of language learning tasks was Julkunen (1989). He suggested that two levels of motivation are at play in learner task behavior: generalized and situation-specific motives (Julkunen, 2001). In his
view, learners come into the learning situation with initial enthusiasm, which is partly affected by home background, language vitality, and instrumental appeal, but when that enthusiasm begins to fade with time (as observed in numerous studies, e.g., Bernaus, Moore, & Azevedo, 2007; Dörnyei & Csizér, 2002; Gardner, 1985; Gardner et al., 2004), the quality of teaching creates and maintains further motivation. So, Julkunen argued, if learners find language learning tasks to be goal-relevant and significant to their well-being, their motivation to continue with L2 study is invigorated, their effort to complete the tasks is intensified, and their language achievement level is enhanced. Julkunen’s (1989, 2001) differentiated levels of motivation corresponded with the distinction made by Tremblay, Goldberg, and Gardner (1995) between trait motivation (enduring patterns of motivation over long periods of time) and state motivation (temporary engagement at particular points in time). Each level of conceptualization was argued to provide a valuable, but somewhat different perspective on motivation (MacIntyre, 2007). Trait motivation was found to exert much influence on state motivation, while state motivation exerted direct influence on L2 achievement (specifically, the rate of vocabulary learning), which means that state motivation mediates the relationship between trait motivation and L2 achievement (Gardner & Tremblay, 1998; Tremblay, Goldberg, and Gardner, 1995). The reverse may also be true – state motivation may influence trait motivation – but this would require regular maintenance of high levels of state motivation over a considerable period of time (Julkunen, 1989).

3.2.3. The Socio-Dynamic Period

The content and relevance of the concept of integrativeness remained controversial even around the turn of the century. Integrativeness seemed understandable in the Canadian context where the socio-educational model originated and where learning French reasonably involved a desire to integrate with francophone Canadians. However, integrativeness seemed to make little sense in L2 learning contexts outside of Canada (Crookes & Schmidt, 1991). As Dörnyei (1990) remarked, learners of English in Hungary, which is a monolingual and monocultural country, could not logically be driven by integrativeness, because they have little or no contact with members of the L2 community, i.e., no salient L2 group with which the learners may identify. Clément and Krudinier (1983) even found evidence of that in the multicultural context of Canada. Some of the learner groups in
their study who lacked immediate contact with the target language group (Canadians learning Spanish) fostered a sociocultural orientation, not an integrative one. This type of orientation implied a “distant and bookish interest” without the affective connotation proper of the integrative orientation. Some studies were not able to identify integrative motivation (e.g., Warden & Lin, 2000), several found positive attitudes towards native speakers of the L2 but no desire to assimilate with them (e.g., Irie, 2003), a few were able to identify integrativeness but were unable to separate it from instrumentality (e.g., Lamb, 2004), and others found large effects for integrativeness but could not confirm its concept validity in the contexts examined (e.g., Dörnyei & Csizér, 2002), which led to question about the validity of the concept of integrativeness (Coetzee-Van Rooy, 2006; Pavlenko, 2002).

Additionally, integrativeness was problematic when it came to Global English. In Japan, McClelland (2000) found that learners of English exhibited integration, but it was with an imagined global community (Norton, 2001), not a particular western community. That is because in the current context of globalization it has become less and less clear who owns Global English (Dörnyei, Csizér, & Németh, 2006; Lamb, 2004). As a result, Dörnyei (1994b, 2003, 2005, 2009a) described the notion of integrativeness in L2 motivation research as more of an “enigma” than a workable research construct.

However, integrativeness consistently emerged in empirical studies on L2 motivation. Regardless of learner characteristics and the language learning contexts examined, integrativeness often explained a significant portion of the variance in L2 learners’ motivational dispositions (Dörnyei, 2002, 2003). What is more, Dörnyei (1990) found that instrumental motives efficiently promoted L2 learning up to the intermediate level, but to go beyond this point - to “really learn” the target language – learners had to be integratively motivated. In fact, indications of the centrality of integrativeness in L2 motivation literature are abundant. An integrative-like component – described as integrative orientation, integrativeness, or the integrative motive – has been found to be a main dimension of the motivational complex (e.g., Clément, Dörnyei, & Noels, 1994), a significant driving force behind foreign language learning (e.g., Dörnyei & Clément, 2001), a booster of time and effort investment in L2 learning (e.g., Vandergrift, 2005), a predictor of increased use of meta-cognitive language learning strategies (e.g., Wu Man-Fat, 2007), an influence on executive motivation during task completion (Bernaus et al., 2007), a
correlate of self-efficacy for self-regulation in L2 learning (Mills, Pajares, & Herron, 2007), an instigator of productive and additive changes in self-identity (Yihong, Yuan, Ying, & Yan, 2007) and – most notably – a direct path to L2 motivation (Bernaus & Gardner, 2008).

Apparently, some notion of cultural openness is in operation in L2 motivation. So, rather than dismiss Gardner’s concept of integrativeness, researchers have put forward alternative conceptualizations, which more accurately reflect the findings they have come across in their research (e.g., Chen, Warden, & Chang, 2005; Csizér & Dörnyei, 2005a; Lamb, 2004; Norton, 2000; Yashima, 2002). Dörnyei (1990) laid the first stone by proposing the generalization of identification to the cultural and intellectual values associated with the L2 instead of its native speakers. His suggestion paved the way for the emergence of more meaningful concepts of identification in L2 learning, such as international posture (Yashima, 2002), defined as “interest in foreign or international affairs, willingness to go overseas to stay or work, readiness to interact with intercultural partners, and … openness or a non-ethnocentric attitude toward different cultures” (p. 57), and bicultural identity (Lamb, 2004), having a local identity rooted in family values and cultural traditions and a global identity that is consumptive of world-wide entertainment, skilled at intercultural communication, adept at cutting-edge technology, and receptive to academic and professional opportunities overseas.

3.2.3.1. Second language motivational self-system

In the midst of doubts regarding the validity of the concept of integrativeness, Dörnyei and Csizér (2002) reported the results of a large-scale national trend study whose objective was to investigate how sociocultural changes that took place in Hungary in the 1990s affected school children’s language-related attitudes and language learning motivation concerning five target languages: English, German, French, Italian and Russian. The study included a total of 8,593 Grade 8 pupils (ages 13-14) from different geographical regions, who were surveyed on two occasions, some in 1993 and others in 1999. Motivational dimensions were correlated with two criterion measures associated with L2 learning behavior: student language choice for future L2 studies (direction of L2 motivation) and effort students intend to exert in learning a given language (magnitude of L2 motivation). Results
indicated that integrativeness was the single most important factor in shaping aspects of pupils’ L2 motivated behavior. Integrativeness subsumed or mediated all the other motivational factors measured in the surveys. In fact, integrativeness alone explained almost as much variance in intended effort as all the motivation components put together. Given the remarkable significance of integrativeness in their study, its salient impact on the criterion measures, and its controversial status in the L2 motivation field, Dörnyei and Csizér (2002) wrote:

We believe that it may be timely to re-examine the term ‘integrativeness’ and its standard definition. We suspect that the motivation dimension captured by the term is not so much related to any actual, or metaphorical, integration into an L2 community as to some more basic identification process within the individual’s self-concept. (p. 453, italics in original)

A person’s “self-concept” is conventionally understood as the summary of the individual’s self-knowledge. It includes information derived from the individual’s past experiences as well as how a person views himself/herself at present. In 1986, Hazel Markus and Paula Nurius introduced the notion of possible selves as a unique self-dimension which differs from the traditional understanding of a self-concept in a number of respects. Markus and Nurius defined it as representations of the individuals’ ideas of what they might become, what they would like to become, and what they are afraid of becoming. In other words, possible selves denote future self-states rather than current ones. Furthermore, because they concern how people conceptualize their as-yet unrealized selves, possible selves draw heavily on individuals’ hopes, wishes, and fantasies. In this way, possible selves act as “future self-guides,” or dynamic forward-looking conceptions that can account for how a person is moved from the present toward the future.

Three main types of possible selves were identified by Markus and Nurius (1986, p. 954): (1) ideal selves, which individuals aspire to become, such as the “successful self, the creative self, the rich self, the thin self, or the loved and admired self;” (2) expected selves, which individuals would most likely become; and (3) feared selves, which individuals would like to avoid becoming, such as “the alone self, the depressed self, the incompetent self, the alcoholic self, the unemployed self, or the bag lady self”. Three further stipulations are posited by the authors
in regards to all types of selves: that they be “possible,” i.e., they cannot be completely detached from reality, or figments of implausible fantasy; that they represent a broad outline of the scope of possible selves rather than specific taxonomy; and that they involve tangible images and senses which form a reality to individuals, i.e., people can see, hear and smell a possible self. The expected self does not guide future behavior because it refers to the default, likely, or could-be scenario for the self. Contrarily, the ideal self has a definite guiding function in setting future standards. The feared self, too, regulates future behavior by guiding the individual away from best-avoided eventualities. Higgins (1987) described the ideal self as referring to the attributes that one would ideally like to possess, such as one’s hopes, aspirations, and wishes. He also added an ought self, which represents the attributes that one believes one ought to possess, such as someone’s sense of duties, obligations, or moral responsibilities. The latter attributes may bear little resemblance to one’s own desires and wishes. Higgins (1996) suggested that the ought self can have a negative reference, meaning it could represent the person one doesn’t want to be, similar to Markus and Nurius’ (1986) feared self. Higgins (1998) also provided a further distinction between ideal and ought self-guides. The ideal self has a promotion focus, since it is concerned with hopes, advancements, growth and accomplishments. The ought self, on the other hand, has a prevention focus, which regulates the presence or absence of negative outcomes associated with failing to live up to various responsibilities and obligations.

Higgins’ (1987) self-discrepancy theory awards possible selves motivational propensity. The theory postulates that people have current self-concepts in mind alongside future ideal/ought self states. Awareness of the disparity between current and future self states is believed to cause uncomfortable feelings of unrealized potential. Motivation results from one’s desire to obliterate emotional discomfort by reducing the discrepancy between the actual self and the projected ideal/ought self. In this sense, emotions are fundamentally important motivators, and future self-guides provide incentive, direction, and impetus for emotionally-based action. Without emotion (e.g., pride, fear, obligation, etc.), possible selves would exist as cool cognitive states which lack motivational potency. A strong presence of emotion, however, fuels motivation, setting action on a clear path towards ideal or duty-bound self actualization.
Drawing on the theory of possible selves in psychology (Markus & Nurius, 1986), Dörnyei and Csizér (2002) speculated that learner identification with a future self might better explain the salience of integrativeness in L2 motivation research than identification with an external reference group. Dörnyei (2005, 2009a, 2010b) developed this speculation further in his L2 Motivational Self-System, where he proposed three main components: the Ideal L2 Self, one’s self-image in an optimal end-state of L2 mastery; the Ought-to L2 Self, one’s self-image of L2-mastery as required by duty and obligation, and the L2 Learning Experience, which refers to factors related to the immediate learning environment, such as the teacher, the learning tasks, the peer group, and L2 success or failure. Based on the theory of self-discrepancy (Higgins, 1987), Dörnyei hypothesized that if proficiency in the L2 constitutes part of one’s ideal or ought-to self, the discrepancies between one’s current and possible future selves will cause discomfort, which, in turn, motivates the individual to learn the L2, increasing the congruence between the two selves and reducing the feeling of discomfort.

To test the suitability of this new self perspective, Csizér and Dörnyei (2005a, 2005b) reanalyzed the data collected for the Dörnyei and Csizér (2002) study, which had tracked motivational change between the years 1993 and 1999. Dörnyei, Csizér, and Németh (2006) augmented the same dataset by surveying more learners in 2004, increasing the sample size to over 13,000 Hungarian pupils. Data from the three time periods were submitted to structural equation modeling, the multivariate statistical technique used to interpret the directional relationship among several variables within a single framework. The results mirrored those originally found by Dörnyei and Csizér (2002). The structure underlying the examined variables remained remarkably stable across three time frames and five foreign languages, and integrativeness was still found to play a key role in L2 motivation. What structural equation modeling was able to additionally reveal, however, was that integrativeness was the only variable to have a direct effect on the criterion measures of language choice and intended effort.

Dörnyei and colleagues (Csizér & Dörnyei, 2005a, 2005b; Dörnyei et al., 2006) then applied the paradigm of possible selves to motivational data, equating integrativeness with the ideal L2 self. The assumption was that when an individual imagines oneself as ideally masterful in the L2, this is indicative of one’s desire to be more like L2 speakers linguistically. Moreover, instrumentality in this paradigm is not a unitary construct. In accordance
with Higgins’ (1998) distinction, instrumental motives with a promotion focus (e.g., studying for professional advancement) are claimed to relate to the ideal L2 self, while those with a prevention focus (e.g., studying to avoid failing a test) are claimed to be part of the ought-to L2 self. In other words, instrumentality depends on the extent of internalization of extrinsic motives. If a motive is fully internalized – completely assimilated with the individual’s values, needs, and identity – the motive is considered part of the ideal L2 self and expected to engender substantial effort expenditure toward L2 success. If the motive is external to the individual or slightly internalized by a sense of duty or fear of punishment, then it is considered part of the ought-to L2 self and expected to generate short-term commitment that is usually insufficient for significant L2 achievement.

Research on the L2 motivational self-system has rendered very interesting findings. The concept validity of the self-system has been demonstrated both quantitatively (Csizér & Dörnyei, 2005b) and qualitatively (MacIntyre et al., 2009a). Structural equation modeling provided confirmation of the tripartite construct of the motivational self-system as well (e.g., Csizér & Kormos, 2009). The ideal L2 self and ought-to L2 self have been confirmed as two distinctly separate motivational variables (Csizér & Kormos, 2009; Taguchi, Magid, & Papi, 2009), while the language learning experience was found to be a major determiner of motivated behavior (Csizér & Kormos, 2009). The ideal L2 self was found to be equatable to integrativeness; the two constructs are positively correlated, with an average coefficient of 0.54 across various subsamples from different countries (Dörnyei, 2009a; MacIntyre, Mackinnon, & Clément, 2009b; Ryan, 2009; Taguchi et al., 2009). This has prompted researcher to conclude that the ideal L2 self and integrativeness “share conceptual ground” (MacIntyre et al., 2009b, p. 209), tap “into the same construct domain” (Taguchi et al., 2009, p. 77), and draw from “the same pool of emotional identification that learners feel towards the values of the language and its speakers” (Ryan, 2009, p. 132). Most importantly, the ideal L2 self was found to be a more comprehensive and robust motivational construct than integrativeness. When correlated with motivated behavior (e.g., Csizér & Kormos, 2009) and perceived L2 competence (e.g., MacIntyre et al., 2009b), the ideal L2 self consistently surpassed integrativeness, explaining an average of 42% of the variance in criterion measures, while integrativeness explained an average of 32% (Dörnyei, 2009a). The ideal L2 self was even found to be a more finely-tuned gauge of L2 motivation than integrativeness.
Ryan (2009) found that the ideal L2 self scale alone was able to point out the more profound motivation of Japanese university English majors in comparison to other learner groups (e.g., secondary school students and university non-English majors). Furthermore, the promotion and prevention aspects of instrumentality have been found to be largely independent from each other (Taguchi et al., 2009). MacIntyre, Mackinnon, and Clément (2009b) also verified that learner awareness of discrepancy between their current L2 selves and their future selves is related to higher motivation, higher integrativeness, as well as higher perceived L2 competence. As for generalizability, Dörnyei’s motivational self-system was found to apply to learning environments beyond the Hungarian context of its origin. Confirmation of the self-system’s external validity was provided by studies conducted in Indonesia (Lamb, 2004, 2007, 2009), Iran, China (Taguchi et al., 2009), Japan (Ryan, 2009; Taguchi et al., 2009; Yashima, 2009), France (Lyons, 2009), and Canada (Noels, 2009; Segalowitz, Gatbonton, & Trofimovich, 2009).

MacIntyre, Mackinnon, and Clément (2009a), however, specified cautions associated with the adoption of self research. Disillusion with the concept of integrativeness may have sent motivation researchers running for the hills, but the appealing notion of self is not without its problems. MacIntyre and colleagues conducted a cursory scan of the PSYCHINFO database and found 75,000 articles with the term “self” in the title as well as an extremely long list of self-related concepts. The vastness of self research is undoubtedly an asset, but its overlapping terminology is a certain liability. The lack of clear distinctions among multitudes of self-concepts has rendered self literature more confusing than integrativeness could ever be. The way Gardner (2005) perceived it, switching to a possible selves framework would not only “confuse things considerably,” (p. 7) but would also make communication about integrativeness increasingly difficult. Moreover, there are not established measurement instruments for possible selves of the likes of the AMTB. Conventionally used measures are diverse and inconsistent, and their implementation risks making L2 motivation research difficult to interpret. Furthermore, focus on the self invites questionable veracity and impartiality. Natural human inclination to protect oneself from negativity might contaminate the data with self-serving errors, biases, and defense mechanisms.
Rather than trample on integrativeness to embrace possible selves, MacIntyre et al. (2009a) stopped to underscore the value of retaining integrativeness as an active concept in motivational discourse. The integrative motive was introduced into the field as a constellation of affective, cognitive and social factors. From their perspective, there is considerable overlap between integrativeness and possible selves on the core issue of identification, especially “when one avoids the often-made mistake of building integrativeness into a straw man that simply means assimilation into the target language group” (p. 50). To them, the two perspectives are not mutually exclusive; instead, “they are complementary concepts that map much of the same phenomenological territory” (p. 43). Ryan (2009) brings more specificity to the relationship between the two conceptualizations by describing integrativeness as the local manifestation of the much more complex and powerful construct of the ideal L2 self. These researchers’ call to preserve integrativeness has been supported by empirical findings. Though integrativeness and the ideal L2 self have been found to be equal, Kormos and Csizér (2008) found them to be different. Their results indicated that the two constructs were distinct from each other, which meant that one could not transplant the other. Thus reconciliation of the two frameworks is preferable to the abandonment of the concept of integrativeness altogether.

Dörnyei (2005) also pointed out that the L2 motivational self-system is still far from complete. There are areas on which there has been very little research. Dörnyei (2006) indicated that it is still unclear how the two types of selves affect the actual learning process. Dörnyei and Ushioda (2009b) added that future research is required on at least six fronts: whether learners harbor multiple or multi-faceted single self-guides; the extent of self-guide stability over time; the role of emotion in self-image-based behavior; the relationship between the ideal and ought-to L2 selves; cross-cultural variation in self-guides; and operationalization of self-system in measurement terms. Considerable further research is needed in order to draw conclusions in these respects.

3.2.3.2. Dynamic systems approach to second language motivation

Dörnyei and Ushioda (2009b) were concerned about the L2 motivational self-system becoming just another tripartite structure that does not sufficiently take into account the process-oriented nature of motivation or
its dynamic interaction with the social environment. Thus, within the same volume, Ushioda (2009) proposed viewing motivation from a person-in-context relational standpoint. Ushioda’s qualitative work has long argued that motivation has a personal-history dimension (Ushioda, 2001), a political dimension (Ushioda, 2006), and a specific social backdrop (Ushioda, 2009). With Dörnyei’s L2 motivational self-system receiving substantial empirical validation and holding considerable explanatory promise, on the one hand, and Ushioda’s person-in-context relational view of motivation achieving real-time idiosyncratic situational sensitivity, on the other, Dörnyei and Ushioda (2009b) suggested a way in which the two equally valid approaches can be reconciled moving forward.

Convergence between their quantitative and qualitative approaches could be achieved through the theoretical paradigms of dynamic systems theory, complexity theory, chaos theory, or emergentism. These approaches concern the behavior of complex systems which contain multiple components that are interconnected in spite of their own independent trajectories of growth. Because these components influence one another in a multitude of ways and degrees, development in complex systems is characterized by a non-linear growth curve, susceptibility to contextual variation, and moment-to-moment change (for recent discussions within SLA, see Dörnyei, 2009c; N. Ellis & Larsen Freeman, 2006). Behavior of complex systems cannot be described in cause-and-effect terms as a result; rather, acknowledgement must be made that any effects are attributed to a constellation of factors. Though complex systems display continuous fluctuation by definition, there are times of seeming stability during which behavior may be predictable. Such stability is achieved by “attractors” and “attractor states,” which refer to patterns that the system is attracted to and in which there is resistance to change. If there are strong attractors or “amalgams” in place, different starting points in the system converge and unfold in the direction of the attractor. In contrast, weak or changing attractors cause system instability. Dörnyei (2009c, 2010a) suggested that possible selves function as one such amalgam and have the potential to act as powerful attractors in the dynamic system of SLA. This amalgam would function as a whole, affecting the direction and intensity of effort. This would bring stability to the dynamic system, and this stability can eventually turn into consistency and predictability, rendering the system researchable.
Second language motivation – as defined by the socio-educational model, state motivation, the L2 motivational self-system, or the most recent dynamic systems approach – has not been the target of extensive empirical research in task-based interaction. Limited findings pertaining to this under-investigated venue of research are presented in the following section.

3.3. Second Language Motivation in Task-Based Interaction

Most research analyzed L2 motivation in relation to language achievement (e.g., Bernaus & Gardner, 2008; Bernaus, Masgoret, Gardner, & Reyes, 2004; Gardner et al., 2004; Huang, 2008; Tennant & Gardner, 2004; for a meta-analysis, see Masgoret & Gardner, 2003). This traditional tendency was criticized by Dörnyei (2001) because motivation – by definition – is an antecedent to behavior, not achievement. Whether or not behavior is emblematic of achievement is a different matter. By correlating motivation with scores on language tests, most motivation studies have falsely assumed a direct relationship between motivation and achievement, overlooking the presence of language behavior which mediates the relationship between the two. As illustrated in Figure 2, achievement is not influenced by motivation alone; several other factors affect the strength of the motivation-achievement relationship (e.g., language aptitude, learning opportunities, and quality of instruction). Thus, A more accurate, useful, and methodologically sound investigation of the relationship between motivation and language learning would correlate components of L2 motivation with aspects of actual L2 behavior (Dörnyei & Kormos, 2000).
Figure 2. Nonlinear relationship between motivation and L2 achievement.

3.3.1. Motivation and Noticing

Noticing is a cognitive behavior crucial to L2 learning. Crookes and Schmidt (1991) called for research on the attention/motivation interface in L2 learning. Based on research in areas of education and psychology (Baars, 1988; Keller, 1983), Crookes and Schmidt (1991) predicted a link between noticing and L2 motivation. They supported their prediction with definitions of motivation from psychology, which often referred to focused attention and persistence as the behavioral manifestations of motivation (Maehr & Archer, 1987). Kanfer and Acherman (1989), for instance, defined motivation as “the direction of attentional efforts, the proportion of total attentional efforts directed to the task (intensity), and the extent to which attentional effort towards the task is maintained over time (persistence)” (p. 661). Crookes and Schmidt acknowledged that sometimes attention is not entirely under voluntary control, but they noted that allocation of attention in L2 learning could be voluntary. Highlighting the extent of learner volition, Crookes and Schmidt (1991) stated the following:

One may be able to choose to take a course or not, to pay attention to class or not, to re-enroll or drop out, to study for an hour or two or not at all, to master the lexicon of one field rather than another, to talk to native speakers on particular occasions or to let the opportunity pass, and to persist in the struggle to communicate meanings in a second language or not. (p. 479)
The only two studies to investigate the relationship between L2 motivation and noticing, Takahashi (2005) and Dasse-Askildson (2008), produced mixed findings. Since Schmidt (1993) argued that integratively motivated learners are more likely to pay close attention to the pragmatic aspects of input than those who are not so motivated, Takahashi (2005) investigated whether motivation influenced attention to pragmalinguistic features in Japanese learners of English in Japan. Eighty university level participants were asked to (a) read transcripts of NS–NS role-plays for two request situations; (b) read transcripts of NS–NNS role-plays for the same situations; and (c) note on an Awareness Retrospection Questionnaire which pragmatic features were different between NS and NNS requests in English. Non-native English data were elicited from Japanese learners of English, whose requests were exclusively realized with mono-clausal request forms such as ‘Will/Would you VP?’ Takahashi found that learners paid attention to discourse markers (e.g., ‘well’, ‘you know’, ‘maybe’) and idiomatic expressions (e.g., ‘This has to do with …’, ‘How ya doin’?’) more than they paid attention to three seeded bi-clausal request head acts (‘I was wondering if you could VP’, ‘Is it possible to VP?’, and ‘If you could VP’). Moreover, learners’ awareness was found to be associated with the learners’ motivation, not with their proficiency level. Learners’ “intrinsic motivation” was found to be significantly involved in their noticing of the second request form ‘Is it possible VP?’ \( (r = .317, p < .01) \). Learners’ positive “attitudes toward the target-language community” were related to their awareness of discourse markers \( (r = .225, p < .05) \). Furthermore, learners’ “orientation toward maintaining good relationships with teachers in the process of L2 learning” was significantly correlated with their noticing of idiomatic expressions \( (r = .282, p < .05) \). That is, different motivational profiles were concerned with awareness of different aspects of pragmalinguistic features, suggesting a complex interplay between learners’ motivational dispositions and their attentional targets at the pragmatic level. Takahashi attributed noticing to personal relevance, as the request form learners noticed was thought to come in handy and the idiomatic expressions they noted were expected to build rapport with esteemed teachers. Thus, Takahashi concluded his study by stating, “we can definitely claim that motivation is a manifold cognitive construct, which is closely related to attention and awareness in processing L2 input, as contended by Crookes and Schmidt (1991)” (2005, p. 111).
The other study on L2 motivation and noticing, Dasse-Askildson (2008), reported opposite results. She obtained the motivation scores of 42 beginner learners of French at a North American university using an adapted form of Gardner’s (1985) AMTB. She randomly assigned the participants to two groups, a written recast group and a control group. She then had all participants complete a pre-task test package, the motivation questionnaire, computerized treatment sessions over a period of three days, and a post-task test package. Computerized instructional treatment addressed French grammatical gender. In each treatment session, images would come up on the screen under which sentences with blanks appeared. All participants were asked to fill in the blanks in French then click on a “checkmark” button when they were done. If the submitted answers were correct, learners in the recast group were prompted to the next set of images and blanks. However, if the answers were incorrect, the recast group saw the complete correct sentence appear before them on the screen and remain there for four seconds. Learners in the control group did not receive written recasts. They were prompted to the next set of images and blanks regardless of the correctness of their responses. To investigate whether there was a relationship between motivation and noticing, Dasse-Askildson correlated the motivation index of each group with their learning gains of grammatical gender on post-tests. Results indicated no statistically significant learning gains from pretest to posttest, leading the researcher to conclude that “recasts do not have a significant effect on the language learning of French beginning students in the short-term” (p. 15). There was also no interaction between learners’ motivation and their overall treatment gains, compelling the researcher to suggest that “motivation does not play a role in how recasts are perceived by beginning language learners” (p. 15).

Dasse-Askildson’s experimental design and analysis, however, were problematic in two respects. The first methodological concern was that the study did not include online or retrospective measures of noticing. Rather, learning gains in her study were considered the indices of noticing. In other words, “noticing” was conflated with “learning” when the two are not one and the same. Learners may notice a correction, even report having noticed it, but continue to make the same mistake which had originally triggered it. So, although noticing is essential for input to become intake (Schmidt, 1990, 2001, 2010), fleeting instances of noticing by no means guarantee language learning. The second analytic concern related to Dasse-Askildson’s operationalization of motivation. As mentioned
earlier, a motivation index was calculated for each group. This index was the mean aggregate of Integrativeness, Attitudes toward the Learning Situation, Motivation, Language Anxiety, and Other Attributes. The sum of these measures, the motivation index, was correlated with noticing; not each individual sub-construct. Much can be lost by analyzing aggregates without conducting simultaneous analyses of their constituent components. Finally, Dasse-Askildson’s participants were beginner learners. That context in itself was not problematic, but it may explain the lack of noticing (or in this case, learning) demonstrated by learners. Dörnyei and Tseng (2009) found that novice learners were less adept than expert learners at appraising their progress and activating relevant action control strategies. Inadequate appraisal on the part of novice learners, they suggested, may obstruct their awareness of targets of corrective feedback. Cognizance of these concerns is very important when interpreting Dasse-Askildson’s findings.

3.3.2. Motivation and Task Affect

Task affect represents emotional behavior in task-based interaction. In an interview with Murphy (2010) Dörnyei indicated that emotions are rarely investigated in SLA despite the reality that L2 classrooms are venues for emotional turmoil, emotions are salient sources of action, and L2 learning is emotionally loaded for many. Very little research has been conducted thus far on task satisfaction, task relevance, and task difficulty.

In regards to satisfaction, learner attitudes toward the general L2 classroom environment have been linked to accounts of L2 motivation or lack of it (Clément, Dörnyei, & Noels, 1994; Donitsa-Schmidt, Inbar, & Shohamy, 2004; Dörnyei, 1998; Gardner, 1985; Gardner et al., 2004; Inbar, Donitsa-Schmidt, & Shohamy, 2000; Kraemer, 1993). Kraemer (1993) and Donitsa-Schmidt, Inbar, and Shohamy (2004) found that the variable that best predicted students’ motivation for Arabic language learning in Israel was satisfaction with Arabic studies, showing a positive correlation of ($r = .48$, $p < .01$) in Kraemer’s study and contributing 46% to the total variance in Donitsa-Schmidt et al.’s investigation. At the task level, attitudes towards specific tasks were found to be qualitatively beneficial to L2 output only when attitudes were positive (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004).
As for task relevance, Crookes and Schmidt (1991) posited that personal relevance maintains L2 motivation. Bernaus, Moore, and Azevedo (2007) added that absence of relevance could contribute to declines in L2 motivation. Both statements have been confirmed by empirical observation. Julkunen (1989, 2001) found that respecting learners’ situational task preferences increased their motivation and engagement. On the other hand, Cooke (2006) in a study on immigrants to the UK found that initially high levels of motivation diminished when language programs failed to offer learners the specific language skills they required to function in society. Rose (2007), however, cautioned that although relevance is indeed an important aspect of motivation (Keller, 1983), her qualitative analysis revealed that relevance it is not sufficient on its own to produce a motivated learner.

In the case of task difficulty, challenging tasks designed within learners’ zone of proximal development (Vygotsky, 1978) are recommended so that L2 learners run into cognitive or linguistic problems through which cognitive processing would be beneficial (Skehan, 1998). Presenting too little of a challenge may lead to minimal learning, whereas too much of a challenge may impact learners’ coping potential (Dörnyei, 2002). Task difficulty, however, is not easy to determine, because it is entirely dependent on learners’ perceptions of the demands of tasks (Robinson, 2001). Whether/how task difficulty relates to L2 motivation thus remains an open question.

### 3.3.3. Motivation and Second Language Production

Second language production is the most obvious behavior in task-based interaction. A series of papers by Dörnyei and Kormos (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004) analyzed the motivation and attitude levels of 46 Hungarian students (ages 14 - 17) in relation to two criterions of L2 production, the numbers of words and the number of turns produced during the completion of oral argumentative tasks. Results indicated that motivational variables together explained roughly 35 - 37% of the variance in the quantity of language produced. Furthermore, when the sample was divided into two subgroups based on learner attitudes towards the task, High Task Attitude learners exhibited significant negative correlation between proficiency and word number ($r = -.39, p < .10$), expressing their message in a more concise manner (Note: $p < .10$ was accepted as significant in order to compensate for the small sample size). High Task Attitude learners’ speech size also correlated highly and significantly with integrativeness ($r = .44, p < .05$). As for Low Task Attitude
learners, the single emerging significant relationship was between course attitudes and speech size \((r = .50, p < .05)\), showing that even if learners did not favor individual tasks, positive disposition toward the course in general could compensate, rendering more active participation.

Correlations between motivational factors and qualitative measures of L2 production (accuracy, complexity, lexical richness, arguments, and counter-arguments), however, were found to be considerably lower than those found with quantity of L2 output. Kormos and Dörnyei (2004) viewed this as consistent with theories of motivation which indicate that motivation determines the magnitude of behavior rather than the quality of behavior. Language quality, they stated, was also related to motivation, but the relationship is mediated by intervening variables, such as the extent of preparation, prior L2 knowledge, and learner strategies. Accuracy, for instance was found to be positively related to course attitudes \((r = .33, p < .05)\). Complexity, however, did not interact with any motivational variables in the whole sample, but when the sample was divided into two groups based on the task attitudes variable, high correlations were found between the composite of the motivational variables and complexity \((r = .80, p < .05)\) and the number of arguments produced \((r = .76, p < .05)\). No measure for fluency was included in Dörnyei and Kormos’ studies.

These valuable results, which validly examined the direct link between L2 motivation and language learning behavior, were from a single data set (task interaction of 46 learners) that was representative of output from a single task type (argumentative), collected from a single demographic (high school pupils), and generalizable across a single language learning context (English as a foreign language). More research analyzing motivation in relation to L2 learning behavior is needed for more solid insights. Other tasks in different interaction settings should be examined in various demographic and typological language learning contexts. The research reported in this dissertation was an attempt in that direction. The following chapter summarizes the literature, outlines the research question motivating this research, and states posited hypotheses.
CHAPTER 4: RESEARCH PROBLEM

4.1. Summary of Literature

The current study aimed to investigate the role of L2 motivation in several dimensions of task-based interaction. As reviewed in previous chapters, research within the interaction approach to SLA has shown that exposure to L2 input, participation in interaction, production of output, and reception of feedback together heighten learners’ sensitivity to L2 form, increasing learners’ chances of noticing gaps in their interlanguage (Gass, 2003; Gass & Mackey, 2006, 2007; Long, 1996; Mackey, 2007a; Mackey et al., forthcoming; Pica, 1994; Schmidt, 2001; Swain, 1995, 1998). Noticing is the undercurrent which ties the different processes of interaction together, selecting relevant input for further processing and potential L2 learning (Schmidt, 1990, 1995, 2001, 2010). Developmental benefits from interaction, however, have been found to be mediated by factors such salience of language domains in feedback, frequency of form in input, skill level of learners, style of language instruction, language background, language learning aptitude, and working-memory (Alanen, 1995; N. Ellis, 2002a, 2002b; Lyster & Mori, 2006; Mackey, 2006b; Mackey et al., 2007; Mackey et al., 2000; Mackey & Philp, 1998; Mackey et al., 2010; Mackey et al., 2002; Mackey & Sachs, in press; Philp, 2003; Robinson, 1996; Schmidt & Frota, 1986; Skehan, 1998; Trofimovich et al., 2007). Yet, little is known about whether L2 motivation is an additional mediator in the interaction-learning interface.

Language learning researchers and practitioners have always been mindful of the pedagogical value of L2 motivation (Dörnyei, 2005; Dörnyei & Skehan, 2003; Gardner, 2006; Masgoret & Gardner, 2003). To invite L2 motivation, proponents of task-based interaction have advised that tasks be designed specifically in line with results from needs analyses (Long, 2005b). The assumption has been that programs which appear to meet learners’ own expressed needs would be more engaging, more efficient, and thus more successful (Crookes & Schmidt, 1991). However, limited research exists on the manifestations of L2 motivation in major dimensions of L2 learning. Within the cognitive dimension, only two studies investigated the relationship between L2 motivation and noticing, but they rendered contradictory results, with one confirming the relationship (Takahashi, 2005) and the
other rejecting it (Dasse-Askildson, 2008). From the affective standpoint, L2 course satisfaction was found to strongly predict L2 motivation in two studies (Donitsa-Schmidt, et al., 2004; Kraemer, 1993), with an additional data set confirming that course-specific attitudes are more influential in increasing speech size than task-specific attitudes (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004). The relationship between task relevance and L2 motivation was predicted to be one of maintenance in some articles (e.g., Bernaus et al., 2007; Cooke, 2006; Crookes & Schmidt, 1991), but empirical investigation of task relevance in actual task-based interaction is still needed. Furthermore, the relationship between task difficulty and L2 motivation remains an open question. As for the behavioral dimension of task-based interaction, the same data set mentioned earlier (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004) revealed that L2 motivation accounted for more than a third of the variance of L2 output, affecting quantity more regularly than L2 quality.

In addition, L2 motivation theory has developed considerably since its beginning in 1959, but comparison of motivational frameworks and their relevance to particular language learning contexts has not yet been attempted. Conceptualizations of motivation, such as those outlined by the socio-educational model (Gardner, 1985, 2001, 2006), state motivation (Gardner & Tremblay, 1998; Julkunen, 1989, 2001; Tennant & Gardner, 2004; Tremblay, Goldberg, & Gardner, 1995), and the L2 motivational self-system (Dörnyei, 2005, 2009a) have yet to be extensively studied in actual contexts of task-based interaction. State motivation and the L2 motivational self-system, in particular, have not been analyzed in relation to any indices of L2 learning.

A comprehensive exploration of the role of L2 motivation within task-based interaction should include any cognitive, affective, or behavioral manifestations. Thus, the research reported here took account of the cognitive dimension of task-based interaction by examining whether L2 motivation related to noticing of feedback. It considered the affective dimension of task-based interaction by investigating whether L2 motivation related to task satisfaction, task relevance, and task difficulty. It also addressed the behavioral dimension of task-based interaction by evaluating whether L2 motivation related to fluency, accuracy, and complexity of L2 production. This multi-faceted approach led to the following research question.
4.2. Research Question and Hypotheses

The main question derived from the literature discussed was:

**RQ.** What are the relationships between L2 motivation and noticing, task affect, and L2 production in oral task-based interaction?

The following hypotheses were formulated based on the research question above:

**H 1.** Within the cognitive dimension of task-based interaction, there would be a relationship of significance between L2 motivation and noticing of feedback. This followed from the prediction made on the basis of definitions of motivation in psychology (Crookes & Schmidt, 1991), the three reasonably robust \( r = .225 - .317 \) relationships found between motivational profiles and noticing of pragmatics at .01 and .05 levels of significance, and non-consideration of the results of Dasse-Askildson’s (2008) study due to concerns regarding efficacy of experimental design and data analysis.

**H 2.** Within the affective dimension of task-based interaction, there would be a relationship of significance between L2 motivation and task satisfaction. This related to robust relationships found by Kraemer (1993) and Donitsa-Schmidt et al. (2004), which indicated that satisfaction with L2 studies was the best predictor of L2 motivation, with a correlation of \( r = .48, p < .01 \) in one study and a contribution of 46% to total variance in the other.

**H 3.** Within the affective dimension of task-based interaction, there would be a relationship of significance between L2 motivation and task relevance. This was based on the availability of predicted (Bernaus et al., 2007; Crookes & Schmidt, 1991) and observed (Julkunen, 1989, 2001; Cooke, 2006) links between L2 motivation and task relevance.

**H 4.** Within the affective dimension of task-based interaction, a null hypothesis was posited for the relationship between L2 motivation and task difficulty. This was a result of task difficulty depending greatly on learner perceptions (Robinson, 2001).
H 5. Within the behavioral dimension of task-based interaction, a null hypothesis was posited for the relationship between L2 motivation and accuracy. This followed from accuracy being found to relate to course attitudes, not task attitudes, in only one data set (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004).

H 6. Within the behavioral dimension of task-based interaction, a null hypothesis was posited for the relationship between L2 motivation and complexity. This related to complexity not interacting with any motivational variables in the whole sample of Dörnyei & Kormos’ studies (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004), but only interacted with the composite of the motivational variables when the sample was divided into two groups based on the task attitudes variable.

H 7. Within the behavioral dimension of task-based interaction, a null hypothesis was posited for the relationship between L2 motivation and fluency. This was because no measure for fluency was included in studies of L2 motivation and output.
CHAPTER 5: DESIGN AND METHODS

5.1. Experimental Design

The research question was investigated using a within-participants experimental design. The experiment was conducted in three stages: a pilot study stage, a needs analysis stage, and a task interaction stage.

5.1.1. Pilot Study

The needs analysis phase began with a pilot study involving 11 university-level intermediate learners of Arabic enrolled in a 10-week intensive summer program in 2009 at a North American university. Two intermediate level classes were offered that summer. Following the needs analysis guidelines specified by Long (2005b), statements of language objectives adhered to by the language instructors were previewed along with the textbook assigned for the intermediate level, *Al-Kitaab fii ta’allum al-‘Arabiyya – Part Two* (Brustad, Al-Tonsi, & Al-Batal, 2006). A total of eight 90-minutes class sessions were observed, four sessions with each instructor. Notations were made regarding the type of activities employed in language instruction, the level of Arabic used, the type of feedback commonly provided, the language skills targeted for instructional focus, and general class atmosphere. Structured interviews were then conducted with the two instructors and 11 learners. The interviews were audio-recorded, transcribed, and analyzed for recurring themes or trends.

5.1.2. Needs Analysis of Learners of Arabic

Results from the pilot study culminated in a needs analysis questionnaire meant to ascertain the pervasiveness of learners’ views in wider populations. Sixty learners of Intermediate-I Arabic were recruited in the fall of 2009 from five classes at the same North American university and asked to answer the needs analysis questionnaire. The purpose of the needs analysis was to identify aspects of Arabic language learning which learners found to be motivating as well as aspects of Arabic language learning which they perceived to be motivation-depleting in order to serve as empirical basis for subsequent task design.
5.1.3. Task-Based Interaction

Results from the needs analysis questionnaires informed the design of two sets of experimental tasks: “high-motivation” tasks in line with learner needs and “low-motivation tasks” in direct opposition to expressed learner needs. Forty-four of the 60 learners, who by spring of 2010 were taking Intermediate-II Arabic classes, engaged in individual task-based interaction with a NS. Participants also completed a global motivation questionnaire, post-task reaction charts measuring their state motivation, and a stimulated-recall session (Gass & Mackey, 2000) the following day for retrospective insights on interactional feedback episodes.

5.2. Participants

5.2.1. Learners of Arabic

A total of 71 intermediate-level learners of Arabic volunteered for the study in all three stages. Specifically, needs analysis data was collected from 60 Intermediate-I participants. Task-based interaction data was obtained from 44 of the original 60 participants, who were by the time of task-based interaction at the Intermediate-II level. Attrition of remaining participants \((n = 16)\) at the final stage of research was caused by scheduling conflicts and travel abroad, among other reasons. Participant age for the entire sample ranged from 17 to 42, with a mean age of 20.79 \((SD = 3.75)\). The average length of prior Arabic instruction was 2.09 years \((SD = 0.55)\), and the average length of stay in an Arabic-speaking country for 50% of the participants \((n = 30)\) who had been to visit the Arab world was 0.44 years \((SD = 0.83)\) or 5.3 months \((SD = 10)\). Eight participants \((13.4\%)\) were graduate students, while the remaining 52 participants \((86.6\%)\) were undergraduate students: four freshmen \((6.7\%)\), 35 sophomores \((58.3\%)\), five juniors \((8.3\%)\), and eight seniors \((13.3\%)\). Forty-seven participants \((78.3\%)\) spoke only English at home. The remaining 13 \((21.7\%)\) came from homes which spoke other languages. All participants completed informed consent forms for participation in the needs analysis stage (see Appendix B) and the task-based interaction stage (see Appendix C). The 44 learners who took part in the final stage of task-based interaction were given US 10 dollar gift certificates as compensation for their participation. The role of the 11 learners involved in the pilot stage ended with the design of the needs analysis questionnaire.
Learners of Arabic at the intermediate I and II levels were considered ideal participants for the current study. Since they were in their second year of language learning, they were expected to provide “seasoned” and well-informed insights at the needs analysis stage. According to comments made by Arabic instructors during structured interviews, progress in intermediate level learners tends to plateaus as learners begin to feel frustrated with increased complexity in language learning input. The intermediate level was thus deemed a prime stage for tapping into learner views and frustrations regarding the language learning process in general, and their evaluations of language learning materials in particular. Furthermore, it served the task-based interaction stage that these learners were neither beginner nor advanced in their grasp of the Arabic language. This meant that they would have enough Arabic knowledge to carry out the tasks, but would still run into linguistic difficulties as they did so. Provision of recasts throughout task-based interaction would thus be naturalistic in a pedagogical setting. Beginner-level learners would not have made informed sources for the needs analysis, and they would have found task interaction in Arabic overwhelmingly challenging. Advanced learners would have still run into linguistic obstacles requiring feedback, but such instances were not expected to occur as frequently as they would in intermediate-level learners.

5.2.2. Interlocutor

All participants interacted with the same female native speaker of Arabic (the researcher), who had three years of experience in language teaching. Since research has indicated that interlocutor disposition can influence that of the speaker, i.e., task motivation is co-constructed (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004), both interlocutor and interlocutor disposition were kept constant. Thus, no other interlocutors assisted in conducting interviews, administering questionnaires, participating in task interaction, or eliciting learners’ retrospective comments. That way any differences in cognitive, affective, and productive outcomes could be attributed to the participants alone.
5.3. Targeted Linguistic Items

The focus in this research was not on L2 development, but on noticing of recasts, task affect, and L2 production. As a result, feedback provided during task-based interaction did not target specific language structures. Any linguistic problem learners encountered in their production – whether lexical, morphological, syntactic, or phonological – was addressed by the native speaker interlocutor through a recast whenever possible. Other published studies have similarly avoided focusing on specific language forms for the same reasons (e.g., Mackey et al., 2000).

5.4. Materials

5.4.1. Structured Interview Protocol

For the pilot study, a structured interview protocol was designed to fill in the gaps in the literature survey, assess learners’ perceptions regarding the class textbook, and address some of the tendencies noted during observations of summer language classes. Structured interviews were considered suitable for this stage because they were structured enough to touch on the same topics with all the participants, facilitating comparisons, yet they were flexible, too, allowing participants to elaborate on the subject matter in a way which could bring new and relevant issues to the researcher’s attention. Interview questions about language learning needs were primarily informed by items from Chaudron et al.’s (2005) academic needs analysis questionnaire. They also included additional items on aspects of interest to the research, such as learners’ reasons for learning Arabic, the nature and extent of learners’ current Arabic language use, and how learners would like to be able to use Arabic in the future. Because there were no published needs analysis questionnaires for learners of Arabic, interview questions especially focused on learners’ evaluations of the progress of their skills, their language learning situation, and what changes they felt would be most helpful to them. It was crucial that the researcher isolated aspects of Arabic language learning which learners felt sustained their motivation and aspects they felt depleted it. Their insights were meant to inform the ensuing design of a needs analysis questionnaire for learners of Arabic in the US. The structured interview protocol used in this research can be found in Appendix D.
5.4.2. Needs Analysis Questionnaire

Appendix E contains the needs analysis questionnaire specifically designed for this study. It took into account insights from the literature preview, class observations, and structured interviews conducted in the pilot study. Issues consistently raised by learners in the structured interviews and on which there was varying degrees of endorsement, e.g., studying Arabic to “Satisfy a university language requirement,” were formulated as statements rated on a Likert scale of six points, with 0 implying “No importance” and 5 implying “Great importance”. A six-point scale was chosen to avoid having participants opt for a safe middle position, and to force their hand, so to speak, to lean one way or the other in their opinions. Other recurring issues for which there were several responses, e.g., “When do you feel motivated to learn Arabic?” were formulated into closed response items with all the different responses listed beneath the items as options for learners to check or rank as applicable to them. An “Other” open option was always added in order to refrain from limiting participants to the options listed. Relevant items were also adapted from the academic needs analysis questionnaire designed by Chaudron et al. (2005). The questionnaire consisted of the following six sections:

Section A. Background information. Basic bio-data were elicited along with self-evaluations of Arabic language proficiency.

Section B. Reasons for studying Arabic. Learner endorsement of several reasons for learning Arabic was gauged.

Section C. Using Arabic. People with whom learners would like to communicate in Arabic were identified.

Section D. Experiencing Arabic-speaking countries. Learners were asked whether they had visited an Arabic-speaking country; if so, what their personal and communicative experience was like; and why they would like to visit soon or again.

Section E. Arabic skills. A detailed picture of Arabic language skills was obtained as used personally by learners and as the object of focus in the language classroom. Learners ranked the strength of their Arabic language skills from strongest to weakest. They ranked language skills in terms of time spent on them in class. They were asked about the extent of their reading, writing, and listening (to media and music) in Arabic. Learners also ranked the conditions in which they felt motivated to learn Arabic,
those in which they felt their enthusiasm for Arabic language learning wane, those in which they found themselves paying attention in class, those in which they found themselves distracted, and those in which they could understand speakers of Arabic. All the listed conditions were derived from the structured interviews conducted with teachers and learners in the pilot study. An “Other” option was included for conditions specific to individuals. At the end of the section, learners were asked whether their Arabic language class met their language needs and why.

Section F. *Personal preferences.* Learners were asked to check or suggest “Other” topics they liked to speak about in Arabic. They ranked language skills in the order in which they were personally important to them. They also ranked skills from most favorite to least favorite because a skill may be very important to learners, like reading, but not their favorite skill to practice. They were asked about whether they liked the emphasis commonly placed on the teaching of Modern Standard Arabic (MSA), and whether MSA or a specific regional dialect of Arabic was most relevant to their personal language needs. Finally, learners rated the personal importance of being able to conduct 22 tasks successfully in Arabic. All tasks were derived from the structured interviews conducted in the pilot study.

Section G. *Changes learners would like to see in the Arabic language class.* An open-item question asked learners to list changes they would like to see implemented in their Arabic language classroom. The remainder of the section asked learners to specify how they felt about different aspects of their Arabic class (e.g., homework, tests, class size, etc.) in terms of them being “Just right,” “Not enough,” or “Too much.”

5.4.3. *Motivation Questionnaire*

A motivation questionnaire was compiled to include both the traditional and the more recent perspectives of global L2 motivation research. Theoretical perspectives were employed jointly in order to assess whether they related to dimensions of L2 interaction differentially. Traditionally employed constructs from Gardner’s socio-educational model (1985, 2001, 2006) were combined with newly proposed constructs from Dörnyei’s L2
motivational self-system (2005, 2009a) in order to provide continuity with established past research and to assess whether new research conceptualizations, which have been advanced in conformity with globalization, were relevant to learners of languages such as Arabic. Linguistic self-confidence (Clément, 1980) and willingness to communicate (MacIntyre et al., 1998) were also assessed because they were empirically found to relate to L2 motivation in task-based interaction (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004). The questionnaire consisted of 158 Likert-scale items. Those assessing constructs from Gardner’s paradigm were adapted from his famed and well-validated AMTB (1985; Gardner, Tremblay, & Masgoret, 1997). Items assessing Dörnyei’s L2 motivational self-system, linguistic self-confidence, and willingness to communicate were adapted from instruments employed in an anthology of studies (Dörnyei & Ushioda, 2009a) especially conducted to extend the self-system paradigm to several language learning contexts (Al-Shehri; Csizér & Kormos; Ryan; Taguchi et al., 2009). Six new items were added by the researcher for the purposes of this study.

The source of each item in the motivation questionnaire, the scale under which each item was classified, and every item’s order of appearance in the actual motivation questionnaire are outlined in Appendix F. Nine scales were included: four pertaining to Gardner’s paradigm (Motivation, Integrativeness, Attitudes towards the Learning Situation, and Anxiety), three pertaining to Dörnyei’s paradigm (Ideal L2 Self, Ought-to L2 self, Instrumentality), and the two scales of Linguistic Self-confidence and Willingness to Communicate. The motivation questionnaire, as presented to participants, can be found in Appendix G.

5.4.4. Interaction Tasks

Appendix H contains the final refined versions of six tasks developed on the basis of results from the needs analysis with the reasons for classifying them as either high or low in motivation (numeric calculations in the Appendix were based on 75% of the needs analysis data collected around the time of task construction). High-motivation tasks conformed to learners’ expressed L2 learning preferences. They concerned topics specifically mentioned by learners as interesting to them or related to situations explicitly indicated by learners as likely for them to experience in the future. Low-motivation tasks were designed to include aspects of Arabic language
learning which learners specifically expressed in their questionnaire responses as irrelevant to, or far from, their personal Arabic language needs. They concerned topics which learners did not expect to discuss in future interactions, or situations specifically stated by learners as least likely for them to encounter in the future. Needs analysis results also informed the following decisions:

(a) *Tasks were to elicit oral Arabic production.* The needs analysis revealed that speaking was the weakest language ability in intermediate learners of Arabic. Speaking, however, was ranked as the most important skill to learners. It was also considered to be a motivating activity for further Arabic learning. Since learners specifically indicated their need for speaking, it was the sole targeted skill in the study.

(b) *Tasks were to be completed using MSA.* It was important to include in the needs analysis a question about which variety of Arabic learners wanted to get more practice using, MSA or regional dialects. That is because this is a contentious issue in Arabic language instruction and one which has sparked debate that is beyond the scope of this dissertation. Needs analysis results indicated that most learners “liked” the way their Arabic language class focused on MSA. It also found that while many learners were open to learning dialects, they was unanimous agreement on the importance of MSA. Thus, MSA was the designated mode of interaction. Of course, since the interaction was oral, allowances were made for dialectal phrases and expressions, as is commonly the case in educated modern Arabic. Recasts were directed at non-targetlike morphological, lexical, phonological, and syntactic formulations, regardless of whether they were made when learners were speaking MSA or dialect. In other words, dialectal digressions were not considered problematic. Interaction continued naturally, switching in and out of dialect. Feedback only targeted breakdowns in communication.

All tasks were piloted with two intermediate-II learners outside of the current participant pool to ensure comparability in terms of difficulty, complexity, amount of language elicited, and duration. The tasks were also discussed with two instructors of intermediate Arabic and the researcher’s mentor, who is an authority in material design. Suggested changes in language, topics, and scenarios were noted, and the tasks were revised accordingly. Refined versions of high-motivation tasks were entitled “Visit to Saudi Arabia,” a cultural task; “The United
States of America: The Officer of the World,” an opinion-expression task; and “Scariest Moment Ever,” a narration task. Low-motivation tasks were entitled “Arabic Language Learning,” a language-related task; “Consulting a Doctor,” a least likley scenario task – as expressed by learners – and “Journalism Today,” a task reminiscent of text book activities.

It is important to note here that high-motivation tasks may not actually engender high motivation in learners, as learners are not uniform in their perceptions of the same stimuli. Similarly, low-motivation tasks may be regarded by some learners as engendering high motivation. Nonetheless, these labels were retained in order to investigate whether incorporating learner needs into task design had any cognitive, affective, or behavioral manifestations in task-based interaction. Results from state motivation scores during task-based interaction were expected to eventually determine whether the tasks were in fact as high or as low in motivation as they had been labeled.

5.4.5. Post-Task Reaction Charts

A sample post-task reaction chart can be found in Appendix I. Since motivation is in a constant state of flux (Dörnyei & Ottó, 1998; Ushioda, 1998, 2001), reaction charts were adminstered after every task to capture state motivation (e.g., Gardner & Tremblay, 1998). There were front and back sections to each reaction chart. On the front was a motivation thermometer, or a motometer (Tennant & Gardner, 2004), on which participants could mark their level of state motivation for Arabic language learning after every task-based interaction. Participants were asked to justify their marked level of motivation in an open response area adjacent to the motivation thermometer. On the back of the reaction chart, participants were asked to answer five questions (Boekaerts, 2002) on a four-point scale ranging from “not much” to “very much”: how carefully they did the task (attention to task), how difficult they found the task (task difficulty), how much effort they put into the task (diligence), how well they did on the task (task satisfaction), and how useful they considered the task to be (task relevance). Only task difficulty, task satisfaction, and task relevance were analyzed in this study.
5.4.6. Recast Episodes

After task-based interaction was completed and the participants had left, the video-recording of the entire task-based interaction was viewed in search of instances of feedback. Episodes containing clear and audible recasts were clipped to be shown the following day to participants. Care was taken so that each clip included enough language context to jog the participants’ memories and take them back to the exact moment in time during which the feedback episode took place. Random episodes which contained targetlike interaction, such as the one shown in (2), were also clipped as distracters. In (2) the NNS formed a perfectly accurate Arabic question (coded in green) and the NS interlocutor responded with an answer. Distracters were interspersed within feedback episodes shown to participants in order to prevent participants from thinking that the stimulated-recall session was an error-identification exercise. The number of distracters included in each participant’s feedback episodes was constrained by availability of clear excerpts in the video-recording of task-based interaction.

(2) Distractor

NNS: wa kam waqt jaðallu ha:ða al-marad³? الطالب: وكم وقت يظل هذا المرض؟

‘And how long does this sickness last?’


‘It usually lasts 24 hours.’

5.5. Measurement of Noticing

The current study employed stimulated-recall reports (Gass & Mackey, 2000) to measure learners’ noticing of recasts. This technique elicits qualitative noticing comments with the aid of visual and auditory stimuli presented to participants after tasks have been completed (e.g., Mackey, 2006b; Mackey et al., 2007; Mackey et al., 2000; Mackey et al., 2002; Swain & Lapkin, 2002). On the day immediately following task interaction, all 44 participants who volunteered for the task-based interaction stage returned to comment on clipped episodes from the previous day’s interaction. They were asked to view the clips, take themselves back to the time of task-based
interaction, and report what they were thinking about then. They were told it was perfectly acceptable if they could 
not remember what they were thinking. They were also cautioned not to report their current evaluations of the clip, 
but to report their thought processes at the time the interaction in the clip was unfolding. Following Gass and 
Mackey (2000), the interviewer (the researcher) acted as a passive listener rather than a conversational partner. The 
interviewer probed minimally during learner introspections to avoid participant leading, mainly prompting learners 
to verbalize their thoughts. Clarification questions were asked only when a participant’s comment was unclear, 
again to minimize investigator control and influence on participant comments. Leading questions, such as “Did 
you mean X?” were avoided so that participants did not receive indications of what the investigator would like to 
hear. Stimulated-recall was carried out in participants’ L1, English, to allow for comfortable and nuanced 
expression of introspections without the cognitive burdens of speaking in the L2.

Of course, like most measures, reliance on stimulated-recall methodology for the collection of noticing 
data is not without its disadvantages. Stimulated-recall exposes participants to the same input twice, first during the 
task and again during the recall session. Double exposure to the same input may facilitate participant noticing 
and/or reconstruction of thoughts during recall (Egi, 2004; Leow, 2002; Leow & Morgan-Short, 2004). Also, 
knowledge gained at the beginning of the recall session may alter learners’ comments toward the end of the 
session, leading to misinformation effects. Additionally, interviewer effects are a veridicality concern, as 
interviewers may influence learners’ reports in a direction consistent with the interviewers views (Egi, 2004). 
Stimulated-recall, however, was the only adequate procedure for the design of the study. Concurrent think-aloud 
reports, which do not involve these liabilities because they are produced in real time, were not suitable for this 
research as they would have disrupted oral communication. Consequently, data gathered via stimulated-recall 
methodology need to be interpreted with these caveats in mind.

5.6. Procedure

As indicated earlier, the entire experiment was conducted over the course of an academic year 
(approximately 10 months) in three stages: a pilot study spanning the period of five weeks in the summer, a needs
analysis study which primarily took place in the fall, and a task-based interaction stage completed over the course of two months in the spring. The pilot study involved a preview of existing literature on language learning goals and methods, class observations of teaching conventions, and structured interviews with 11 participants and two intermediate Arabic language teachers, all for the purpose of identifying the language learning needs of learners of Arabic. Results from the pilot study informed the needs analysis questionnaire, which was used in the following stage of research for systematic collection of data. Sixty new participants completed the needs analysis questionnaire. Results from the needs analysis then informed the design of the six oral interaction tasks used in this study, three high-motivation tasks in line with learners’ expressed language needs and three low-motivation tasks which learners explicitly stated to be far from their anticipated language needs. Forty-four of the 60 participants returned in the spring for the final stage of the research, which required a two-day commitment. On Day 1 participants completed the motivation questionnaire, interacted with a native speaker of Arabic individually, completing the six tasks in random order. On Day 2 participants met with the researcher to take part in stimulated-recall sessions. The procedure and approximate time spent during each stage are summarized in Figure 3.

Figure 3. Experimental procedure.
5.7. Analysis

The data set for this study originated from six sources: (a) recast episodes from video-taped interactions, (b) stimulated-recall comments provided about recast episodes, (c) global motivation scores from the motivation questionnaire, (d) state motivation scores marked on the motivation thermometer, (e) affective task evaluation scores from the back of post-task reaction charts, and (f) three measures of Arabic language performance: accuracy, complexity, and fluency. Separate analyses were conducted to code each sub-set of the data. Operationalizations and examples of the coding categories are outlined below.

5.7.1. Recast Episodes

As indicated in the procedure, the interlocutor orally interacted with volunteer intermediate-II learners of Arabic individually (n = 44), completing a series of six counterbalanced tasks with each participant. Throughout task interaction, the interlocutor provided corrective feedback solely in the form of recasts whenever it was natural to do so in a pedagogical setting. That is, whenever there was a lull in the conversation after the articulation of a nontargetlike utterance, a breakdown in communication as a result of a nontargetlike formulation, or when discourse dynamics required a response from the researcher that was contingent on nontargetlike speech. The total length of video-recorded Arabic interaction with all participants approached 33 hours (1,975 minutes and 51 seconds, to be exact). Subsequent to each participant’s departure, the researcher viewed each recorded interaction in its entirety (which ranged from 29:26 seconds to 1:05:09 seconds, with a mean length of 44:54 seconds). Segments of clear and audible contextualized exchanges (ranging from 3 seconds to 1:17 seconds, with a mean length of 21.7 seconds) were then clipped for participants to view and comment on the following day. A total of 862 Arabic formulations were featured in these segments. Most of the formulations were nontargetlike (82.1%, n = 708), engendering recasts from the interlocutor. Remaining formulations (17.9%, n = 154) were intentionally clipped to contain no errors and serve as distracters. Care was taken to ensure that the clipped video segments viewed by participants included nontargetlike formulations (ranging from 5 to 28 for each participant, with an average of 16.1 and SD = 5.9) as well as perfectly correct distracters (ranging from 0 to 12 for each participant,
with an average of 3.5 and $SD = 2.3$). The clipped episodes of only one participant did not include distracters. This participant was retained in the sample because his noticing percentage did not evidence major sensitivity to errors addressed by recasts. As mentioned previously, inclusion of distracters was constrained by availability of clearly audible instances of back-and-forth interaction.

All 708 nontargetlike formulations and their respective recasts, referred to as recast episodes henceforth, were transcribed. Each recast episode was then categorized on the basis of the error type which had triggered it. The five error types categorized were morphology, syntax, morphosyntax, lexis, and phonology. Examples of each of these categories, taken from data in the current study, appear in (3)–(7).

(3) Morphological recast

NNS: çifti tâdřiba xaʔifæʔaydʕan
الطالب: عندي تجربة خائفة أيضاً

‘I have a scared experience, too.’

NS: muxi:faʔaydʕan
الباحث: مخيفة أيضاً

‘Scary, too.’

NNS: naçam muxi:faʔaydʕan
الطالب: نعم مخيفة أيضاً

‘Yes, scary, too.’

Arabic follows a typically Semitic morphological system in which most words, especially nouns and adjectives, are formed by combining two discontinuous bound morphemes: a root consisting of three (or more) core consonants ordered in a sequence which denotes specific lexical meaning, and a pattern or template consisting of vowels, auxiliary consonants, and slots for the root phonemes which denote arrays of semantic and grammatical meaning. Neither an Arabic root nor a pattern can be used in isolation; rather, they need to connect with each other to achieve meaningfulness. The lexical root $k-t-b$, for example, can interlock with the active participle pattern $\_a:\_i\_$ which means “doer of the action” to form the word $ka:tib$ ‘writer.’ The same root can also interact with another pattern $\_u\_a:\_$ which signifies pluralization to form the word $kur\_a:b$ ‘writers.’ Such shifting of patterns around consonantal roots accomplishes a great deal in terms of word creation (derivation) in the language. This
system of root-pattern combinations has been argued to enable learners of Arabic “to deduce or at least wisely guess at a wide range of word meanings through compositional semantics by putting together root and pattern meanings to yield a word meaning” (Ryding, 2006, p. 49). However, the same system is also responsible for numerous erroneous deductions on the part of learners still struggling to master the language.

The excerpt featured in example (3) is a case in point. In her attempt to describe a past experience, the NNS set out to form the adjective ‘scary’ by combining the root \textit{x-w-f} with one of numerous adjectival patterns. Instead of using the correct pattern for ‘scary,’ \textit{mu\textit{x}i:f}+a (feminine marker), she used the adjectival pattern for ‘scared’, \textit{ra\textit{a}f[a]}+a (feminine marker), yielding an odd utterance which denoted that she had had a ‘scared experience.’ This error in morphology triggered a recast from the NS interlocutor which included the targetlike pattern matching the NNS’s intended meaning. The NNS responded by acknowledging the correction through repetition. Since semantics is part and parcel of morphology in Arabic, no separate semantic category was included in the analysis. Instead, all recasts provided in response to incorrect manipulations of word-internal changes during the formation of nouns (including pluralization), adjectives (including the comparative and superlative), and verbs (including tense) were categorized as triggered by morphology.

(4) Syntactic recast

NNS: kuntu … çafra wa θama:nija?

‘I was ten and eight?’

NS: θama:nija çafra

‘Eighteen.’

NNS: θama:nija çafra

‘Eighteen.’

In example (4), the NNS inverted the word order in a compound number phrase, uttering the Arabic equivalent of ‘ten and eight’ instead of ‘eighteen.’ This resulted in the NS recasting with the correct word order for numerals. The NNS responded with a repetition of the correction. Recasts provided in response to inversion of
Arabic word order, omission of elements required by the sentence structure (e.g., subjects, verbs, objects, adjectives, possessive pronouns, question particles, modals, adverbs like existential ‘there is/are,’ and prepositions), or oversuppliance of structures already present in the sentence (e.g., redundant pronouns, adjectives, and prepositions) were all categorized as triggered by syntax.

(5) Morphosyntactic recast

NNS: ʔinnahum tastatį:çu fahm
‘They-masc.pl. can-fem.sing. understand ..’

NS: jastatį:çu:n
‘They-masc.pl. can-masc.pl.’

NNS: jastatį:çu:na fahm al-kalam .. qali:lan
‘They-masc.pl. can-masc.pl. understand speech
minimally.’

Arabic is a language that has a network of dependency relations in every phrase or clause; that is, it requires number, gender, person, and definiteness agreement between words and their dependents in phrases or clauses. The NNS in example (5) began with the Arabic equivalent of the pronoun ‘they-masc.pl.’ but incorrectly followed it with ‘can-fem.sing.,’ violating strict stipulations for number and gender feature compatibility. The NS provided a recast, correcting for agreement, and the NNS reiterated the correction as she finished off her utterance. The reason this category was labeled morphosyntactic was because feature inflection on one word, ‘can,’ depends on the features of other words occurring before or after it in the sentential sequence. In other words, one must traverse the syntax to determine which morphemes ought to be affixed to which dependent words to achieve complete feature conformity. Agreement in Arabic is not only required at the bound morpheme level (e.g., gender prefixes or number suffixes), but at the independent morpheme level as well where negation words are also selected on the basis of syntax (explained in more detail in Chapter 7). Thus, whenever in the data a recast was provided in response to morpheme selection (bound or independent) that is lacking in agreement considerations, that recast was categorized as triggered by morphosyntax.
In example (6), the NNS used an inappropriate lexical item, ʔidża:za, ‘vacation’, to ask the doctor for the price of his friend’s medical consultation. This led the NS interlocutor to question the word. The NNS responded by stating that he was referring to money. Finally, the NS offered the correct word, zi:jə:ra, meaning ‘visit’, which the NNS immediately recognized and accepted. Recasts such as these provided in response to incorrect choice of lexical roots or prepositions were categorized as triggered by lexis.

(7) Phonological recast

NNS:  dawruha asʕ-sʕahiːh hija lajsa dawr qida:jə 
الطالب: دورها الصحيح هي ليس دور قادة
‘Its true role is not one of [jumbled root].’

NS:  qija:da
الباحث: قيادة
‘Leadership.’

NNS:  qija:da
الطالب: قيادة
‘Leadership.’
In (7), the NNS pronounced the Arabic equivalent of the word ‘leadership’ in a nontargetlike way, *qida:ja*, jumbling the order of the last two consonants in the root. The NS interlocutor provided the more targetlike pronunciation, *qi:da*, eliciting a repetition of the accurate word from the NNS. Similar recasts provided in response to unfamiliarity with lexical roots or mispronunciations of their derivatives were categorized as triggered by phonology.

5.7.2. Stimulated-Recall Comments

Participant perceptions about aforementioned recasts, in the form of comments audio-taped during the stimulated-recall sessions, were transcribed and categorized. Categorization was based on whether or not participants indicated noticing of the corrective objective of recasts. Comments where coded as “reporting no noticing” when there was no reference to recasts featured in the episodes or the erroneous utterances which had triggered them. Of course, that in no way meant that no noticing took place; it simply indicated that no noticing was verbally reported. Retrospections were coded as reporting no noticing when participants (a) did not recall thinking anything in particular, (b) stated that they were mostly focused on understanding the content of interaction, (c) clarified what they were trying to say, (d) offered alternative ways of saying structures other than the target of the feedback, (e) asked for the meaning of new words other than those recast which had come up in the interaction, (f) expressed frustration with inability to adequately articulate their thoughts, (g) reported jubilation and pride at being able to recall and successfully deliver words unrelated to the targeted error, (h) identified chronic linguistic problem areas unrelated to the featured error, (i) commented on the interaction tasks at hand, (j) admitted preoccupation with what they were going to say next, (k) noted individual Arabic-speaking tendencies, (l) shared non-linguistic thoughts from the previous day, or (m) first realized their errors during the stimulated-recall session. Sample comments illustrating each of these instances are provided in (8).

(8) No report of noticing feedback

a. *I don’t remember anything distinctive about that one.*

b. *I was trying to sort through what you said when you started responding to the first question.*
c. I think I was actually trying to say something else. Not that they didn't have money, but I think I was gonna say that they couldn't build a nation.

d. I think now actually using ظَنَّ [hāl 'condition'] might have been a better word instead of وضع [wad'q 'situation'].

e. Um... the بالضبط [bid'd'abf 'exactly'] was just ... I didn't know that word.

f. And every time it was evident that I wasn’t quite getting it, I kept thinking ‘oh my god, I need to review. Oh my god, I need to review. Oh my god, I need to review.’

g. I had remembered a lot of words that we hadn’t talked about in a long time. I was like ‘Yay.’

h. The conditional is kind of hard, for me. (On recast episode addressing gender agreement.)

i. This one [Arabic Language Learning Task] I remember I was pretty into. Cuz I remember it sorta presented an opportunity to ask questions I actually wanted answered.

j. I was more concerned with not asking you the question, but like what I was gonna say for my personal experience.

k. I say شَيْء [ʃaj 'thing'] a lot.

l. I was thinking about a movie I had just seen called The Green Zone about, I mean it was really about the same thing – the not knowing.

m. That didn't even like go through my mind that I had made a mistake ... but now that I hear it again, I'm like 'Oh, hmm.'

Comments were coded as “reporting noticing” when they contained indications of the perception of having been corrected. Whether the correction was understood or not was immaterial to the current analysis, since the focus in this study was on noticing alone. Comments were considered to evidence noticing when participants: (a) picked up the correction and asked questions about it, (b) repeated the recast over the video-clip – i.e., while it was running, (c) acknowledged reception of feedback without specification of the error it addressed, (d) identified the error but did not understand the correction, (e) stated they paid attention to content at the expense of grammar, (f) identified errors featured in recast episodes without mentioning feedback as the catalyst, (g) identified the error and
acknowledged feedback but stated the wrong justification for the recast, (h) took written note of recasts immediately after they were provided during interaction – as indicated in video footage, (i) repeated the recast over the video-clip and commented on it once the clip ended, (j) identified original errors in technical linguistic terms, (k) compared the recast form to other derivatives from the same root to solidify their understanding of the correction, (l) explicitly indicated their understanding of the feedback, (m) identified the source of errors, (n) stated the grammatical rule for the recast form, (o) explicitly noticed the recast, (p) thanked the NS interlocutor for a correction or apologized for having made a mistake during interaction, (q) applied recasts accurately within a stimulated-recall comment, (r) applied recasts accurately throughout the remainder of task interaction, or (s) made a linguistic argument using the recast form as a supporting example.

(9) Reported noticing of feedback

a. Why is it اَكغش[inkasar ‘broke’] and not اَكـ[iksar ‘broke*’]? Where is the اَك- /n/? from?

b. يخيفني[juxi:funi ‘scare me’] (over clip). I think I’ve been trying to gather the words to say “they’ve been saying that for 20 years.”

c. I really hope that people out there in the world like really correct me all the time like you did.

d. I don’t think I understood that correction. I think I just repeated it for time’s sake and also because it is correct, and so I was repeating it to get it into my head.

e. I was focused, more focused, on the idea and less focused on the grammar.

f. I’ve been trying to figure out how to use ُلأ[?abadan ‘never’]. Even when I was writing it down on the paper, and I didn’t. So, I was just like “Well, we’ll see if I get to it, and do it right in the talking.” (On syntactic recast addressing targetlike position of ‘never’)

g. I realized it once you corrected me too, the verb and like gender agreement thing; it’s a little tough. (On recast episode addressing past vs. future tense).

h. P1 noted تقاليد[taqa:li:d ‘customs’] on planning sheet after receiving a recast containing the correct pattern for pluralization.
i. [af-jurba ‘soup’] (over the clip). What’s jurb ‘alcohol’? Like a drink! Yeah, I can give him a drink (laugh). (On questions about what he could do for his sick friend.)

j. Yeah I always, um, unless I can write it out and see like the form II the form I for [qallama ‘taught’] and [ataqallam ‘I learn’], which is like to learn and which is to teach. And so, that's what I was, I was trying to say to teach but I think it came out as the, the opposite one.

k. [tamanna ‘insurance’]. What’s [atamanna]? ‘I wish.’

l. With the conjugation at the beginning I think I was trying to say [ta’dunni:n ‘you think’ for the feminine singular] but I just like kind of grumbled it. It sounded really bad, so that was in fact a correction that I understood.

m. I think I said [kant ‘she was’] instead of [kunti ‘you were’ for the feminine singular]. And then I usually do the third person instead of doing the second person while I'm talking to someone. Because I'm thinking of she in my head and not of you.

n. With [lam ‘negative particle’] it’s plus the present tense. Like that’s something that still, it doesn’t come automatically. It’s past plus present.

o. So here I took note of what you said, the [naxtar ‘we choose’] but I decided to just kind of not to stop. Cuz I kind of noticed it. I noticed it but I didn’t stop. (On recast episode addressing verbal morphology.)

p. kutta:b ?ana ?aasif ‘writers, I am sorry.’ (Participant apologizing for having made a mistake during interaction.)

r. حَوَلَهَا الأَشْخَاصُ البِدْرِ أَوِ الْقِبَائِلَ [haʔulaʔ? alʔxaʔs al-badw aw al-qabaʔ?l ‘those Bedouin people or tribes.’] (Pluralization patterns for the words ‘tribes’ and ‘people’ were recast one and eleven feedback episodes earlier, respectively.)


5.7.3. Global Motivation Scores

Global motivation refers to a learner’s general drive for L2 learning over an extended period of time, irrespective of any situational changes in the L2 learning environment. Since the purpose of the present study is to assess which components of motivation relate to dimensions of task interaction in a new language learning setting, several operationalizations of global motivation were included in all analyses. A number of steps were taken to arrive at motivation scores. First, data were transferred from hard copies of motivation questionnaires to a file in IBM SPSS Statistics 19 by entering the selected ratings for each item from 1 to 6. Second, encoded data were checked by the researcher for mistakes made during data entry. Next, negatively worded items were recoded using reverse scoring to retain their intended values. Fourth, internal consistency reliability for each scale was calculated to ensure that the items subsumed under a proposed scales worked together in a homogenous manner. Cronbach Alpha coefficients in excess of .60 were considered acceptable. Finally, data were reduced to fewer and broader number of variables for more efficient analysis by computing the means of multi-item scales. Below are Cronbach alpha values for each scale, lists of subscales included in computations, and information on the number of items within subscales. Number of items for each scale followed the sources from which they were adapted.
a. *Motivation* scores were arrived at by computing the mean of Motivational Intensity scores (10 items, Cronbach a = .74), Desire to Learn the L2 (10 items, Cronbach a = .63), and Attitudes towards Learning the L2 (10 items, Cronbach a = .86).

b. *Integrativeness* scores were arrived at by computing the mean of Integrative Orientation (5 items, Cronbach a = .68), Interest in Foreign Languages (10 items, Cronbach a = .75), and Attitudes towards the L2 Community (10 items, Cronbach a = .77).

c. *Attitudes towards the Learning Situation* scores were arrived at by computing the mean of Attitudes towards the Language Teacher (15 items, Cronbach a = .86) and Attitudes towards the L2 Course (15 items, Cronbach a = .91).

d. *Anxiety* scores were arrived at by computing the mean of Language Class Anxiety (5 items, Cronbach a = .90) and L2 Use Anxiety (5 items, Cronbach a = .80).

e. *Instrumentality* was assessed in terms of instrumentality-promotion (10 items, Cronbach a = .77) and instrumentality-prevention (10 items, Cronbach a = .86).

f. *Ideal L2 Self* (10 items, Cronbach a = .84).

g. *Ought-to L2 Self* (10 items, Cronbach a = .85).

h. *Linguistic Self-confidence* (4 items, Cronbach a = .75).

i. *Willingness to Communicate* (14 items: 7 for the L1, Cronbach a = .55; and 7 for the L2, Cronbach a = .86). Only L2 willingness to communicate was included in analysis.

5.7.4. *State Motivation Scores*

State motivation refers to a learner’s situation-specific level of motivation at a given point in time. Since the present study utilized six different tasks and sought to explore whether relationships existed between motivation and features of task interaction, adding a measure of state motivation was deemed potentially useful. State motivation scores for each task were obtained by measuring where learners marked their motivation on the 5cm-long thermometer on the post-task reaction chart. Measurement in centimeters reflected the extent of state motivation. So, a mark at the 3.5cm from the bottom of the thermometer, as shown in Figure 4, indicated a
motivation value of 3.5/5 or 70% motivation. Task motivation scores for every task were entered into SPSS for further analysis.

Figure 4. Task motivation thermometer on post-task reaction charts.

5.7.5. Affective Task Evaluation Scores

Affective task evaluations refer to learners’ subjective opinions about how difficult they felt the tasks were; how well they felt they had executed the tasks; and how useful they felt the tasks would be in future L2 use. Three items on the back of the post-task reaction charts elicited these affective evaluations on a four-point scale from “not much” to “very much.” Affective evaluation values for each task were entered into SPSS for further analysis.

5.7.6. Second Language Production Scores

Three L2 language indices of performance were included in this study: accuracy, complexity, and fluency. Accuracy was operationalized as the percentage of error-free phrases in learners’ L2 production. Complexity was operationalized as the percentage of subordination and syntactic variation in total number of c-units. Fluency was operationalized as the percentage of words uttered without reformulations, replacements, false starts, repetitions, hesitations, and pauses. All operationalizations were based on Foster and Skehan (1996). A mathematical representation of how accuracy, complexity, and fluency were computed is shown in (10).
Calculation of L2 performance percentages

\[
\text{Accuracy} = \frac{\text{Number of accurate phrases}}{\text{Total number of phrases}} \times 100
\]

\[
\text{Complexity} = \frac{\text{Number of c-units containing subordination or syntactic variety}}{\text{Total numbers of c-units}} \times 100
\]

\[
\text{Fluency} = \frac{\text{Total number of words} - \text{breaks in conversation}}{\text{Total number of words}} \times 100
\]

5.8. Inter-Rater Reliability

To assess inter-rater reliability for the coding of data not elicited by questionnaires, an independent rater undertook individual coding of a subset of the data. The independent rater was a native speaker of Arabic enrolled in a Master’s program at a department of linguistics in a North American university. She was familiar with L2 research of this type but unaware of the research questions investigated in this study at the time of coding. She coded 10% of three datasets, determining the linguistic content of recast episodes, making judgments on noticing in stimulated-recall comments, and calculating the three measures of Arabic language performance (accuracy, complexity, and fluency). The independent rater was trained as follows: (a) she was given information about interaction and interactional feedback, together with examples of recasts and nontargetlike utterances; (b) she practiced coding sample feedback episodes; (c) she was given information about the stimulated-recall procedure and familiarized with the criteria for noticing; (d) she practiced coding sample stimulated-recall comments; (e) she was given information about measuring accuracy, complexity, and fluency in Arabic production; and (f) she practiced calculating measures of accuracy, complexity, and fluency from a short excerpt of Arabic text.

Stimulated-recall comments were coded before recast episodes in order to eliminate any influence on coding. Simple agreement percentage was used to calculate inter-rater reliability. The independent rater and the researcher compared their mutual coding of the same data. For interaction data, agreement was 97.6%. For the stimulated-recall data, agreement was 98.8%. For performance data, agreement was 96.6% for accuracy, 100% for complexity, and 95.9% for fluency. The three other sources of data in this study, global motivation scores, state
motivation scores, and affective task evaluation scores, were obtained from questionnaires as distinct items at levels selected by the participants (e.g., 4 or 2). These were checked after they had been entered into SPSS by the researcher on two different occasions.
CHAPTER 6: RESULTS

6.1. Motivation and Noticing

Figure 5 presents an overview of the recast episodes analyzed in this study. Recasts were at times triggered by errors in syntax (16.8%, n = 119) and morphology (26.6%, n = 188), but most of the time they were triggered by problems resulting from the interaction of the two language levels, i.e., by morphosyntax (40.1%, n = 284). Recasts infrequently targeted lexis (13.1%, n = 93) and rarely addressed phonology (3.4%, n = 24). Also, Figure 6 indicates that more recasts were noticed by learners (58.3%, n = 413) than not (41.7%, n = 295).

![Linguistic content of recast episodes.](image)

*Figure 5. Linguistic content of recast episodes.*

<table>
<thead>
<tr>
<th>Lexis</th>
<th>Phonology</th>
<th>Syntax</th>
<th>Morphology</th>
<th>Morpho-Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>13%</td>
<td>3%</td>
<td>40%</td>
<td>17%</td>
<td>27%</td>
</tr>
</tbody>
</table>

![Number of Stimulated-Recall Comments](image)

Noticing Reported

<table>
<thead>
<tr>
<th>Number of Stimulated-Recall Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Reported</td>
</tr>
<tr>
<td>413</td>
</tr>
<tr>
<td>295</td>
</tr>
</tbody>
</table>

*Figure 6. Distribution of stimulated-recall comments.*
Figure 7 shows that intermediate learners of Arabic reported noticing feedback around 60% of the time when recasts were triggered by lexis (59.1%), phonology (62.5%), syntax (63.9%), and morphology (65.4%). However, when recasts were triggered by morphosyntax, there was a 50:50 chance that learners would report noticing a correction (50.7%, to be exact.) Chi-square tests comparing the percentages of reported noticing across the major types of error did not yield significant findings.

Figure 7. Reported noticing of recasts across types of targeted errors.

Figure 8 further indicates that reported noticing of feedback differed from one individual to the other. Reported noticing percentages ranged from as low as 18.8%, as in the case of Andrea, to as high as 90.9%, as in
the case of Eric (participant names have been replaced with pseudonyms), with an average reported noticing percentage of 57.6, $SD = 20.3$.

Figure 8. Reported noticing of recasts across participants.

In regards to the cognitive dimension of task-based interaction, the first part of the research question could be rephrased as follows: *What is the relationship between L2 motivation – as operationalized by the socio-educational model, state motivation, and the L2 motivational self-system – and noticing of recasts in task-based interaction?*

To answer this question, the socio-educational scales underlying integrative motivation, which are Motivation (mean of Motivational Intensity, Desire to Learn the L2, Attitudes towards Learning the L2), Integrativeness (mean of Integrative Orientation, Interest in Foreign Languages, Attitudes towards the L2 Community), and Attitudes towards the Learning Situation (Mean of Attitudes towards the L2 Teacher and Attitudes towards the L2 Course) were correlated with learners’ overall percentage of reported noticing. Second, state motivation scores (from motivation thermometers) were similarly correlated with overall percentage of reported noticing. Third, the motivational self-system constructs of Ideal Self, Ought-to Self, Instrumentality-Promotion, and Instrumentality-Prevention were correlated with overall percentage of reported noticing. As shown in Table 1, the only component which interacted significantly with overall reported noticing was Attitude towards
the L2 Community \( (r = .322, p < .05) \), a subscale of integrativeness posited by the socio-educational model to energize integrative motivation. Linear regression analysis was run to quantify the significance of this relationship. The unstandardized regression coefficient (B) was 16.5, which meant that for every unit of ‘Attitudes towards the L2 community,’ reported noticing is predicted to increase by 16.5 units. Remaining r-values and p-values for the 44 participants indicated that no other socio-educational component was related to overall reports of noticing. State motivation only correlated significantly with overall reported noticing in one task, Journalism \( (r = .328, p < .05) \), with linear regression analysis indicating that for every unit of state motivation in the Journalism task, reported noticing is predicted to increase by 8.9 units. No significant correlations were found between reported noticing and any of the motivational self-system constructs (Ideal Self, Ought-to Self, Instrumentality-Promotion, or Instrumentality-Prevention).

Table 1

*Correlation matrix of global L2 motivation and reported noticing of recasts*

<table>
<thead>
<tr>
<th>Cognitive Variable</th>
<th>Integrative Motivation</th>
<th>Integrativeness</th>
<th>Attitudes towards the L2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intended Learning</td>
<td>Attitude towards Learning the L2</td>
<td>Interest in Foreign Languages</td>
</tr>
<tr>
<td></td>
<td>Effort</td>
<td>Desire to Learn the L2</td>
<td>Integrative Orientation</td>
</tr>
<tr>
<td>Overall</td>
<td>.102</td>
<td>.274</td>
<td>.204</td>
</tr>
<tr>
<td>Reported noticing</td>
<td>.510</td>
<td>.072</td>
<td>.183</td>
</tr>
</tbody>
</table>

* p<.05.

Since the analysis outlined above provided a macro-perspective of the relationship between overall reported noticing and motivation, a micro-analysis was conducted to reveal any potentially significant relationships at the more finely-grained level of individual tasks. Motivation components derived from the socio-educational model, state motivation, and the L2 motivational self-system paradigm were once again correlated with reported noticing, but this time with percentages of reported noticing in each individual task. Closer analysis of this kind
was deemed necessary for three reasons. First, correlating a participant’s overall reported noticing with motivational components overlooks the role and properties of the mediating vehicles which gave rise to interaction in the first place, the tasks. Second, the six tasks used in the study were designed to touch on qualitatively different topics with ranging degrees of familiarity, difficulty, and relevance. It would be interesting to see how reported noticing fared in each task and whether it interacted differentially with state motivation. Third, applying a two-layered approach to the study of motivation, termed as \textit{trait} and \textit{state} motivation in the literature, has been called for by many in the field (e.g., Julkunen, 1989, 2001).

Figure 9 illustrates that state motivation interacted significantly with task-specific reported noticing in five out of the six tasks. Reported noticing in “Visit to Saudi Arabia,” heretofore referred to as KSA in abbreviation of the Kingdom of Saudi Arabia, was the only one to correlate significantly with state motivation ($r = .344, p < .05$). Linear regression analysis indicated that for every unit of state motivation, reported noticing in the KSA task is predicted to increase by 20.1 units. Moreover, reported noticing in all five tasks correlated significantly with components of integrative motivation posited by the socio-educational model; that is, either with Motivation (or one of its subscales) or with Integrativeness (or one of its subscales.) Reported noticing in “The United States of America: The Officer of the World,” referred to as USA, correlated significantly with Motivation ($r = .309, p < .05$) and Integrative Orientation (a subscale of Integrativeness, $r = .306, p < .05$.) Linear regression analysis indicated that for every unit of Motivation, reported noticing in USA is predicted to increase by 15.4 units; and for every unit of integrative orientation, reported noticing in USA is predicted to increase by 10.9 units. Reported noticing in KSA correlated significantly with Interest in Foreign Languages (a subscale of Motivation, $r = .370, p < .05$), which was quantified through linear regression as for every unit of Interest in Foreign Languages, reported noticing in KSA is predicted to increase by 34.9 units. Reported noticing in “Scariest Moment Ever,” referred to as Scariest Moment, correlated significantly with Attitudes towards the L2 Community (a subscale of Integrativeness, $r = .408, p < .05$). Linear regression analysis quantified this significance as for every unit of Attitudes towards the L2 Community, reported noticing in Scariest Moment is predicted to increase by 31.2 units. Reported noticing in “Journalism Today,” referred to as Journalism, correlated significantly with Desire to Learn the L2 (a subscale of
Motivation, $r = .373, p < .05$). Quantification through linear regression showed that for every unit of Desire to Learn the L2, reported noticing in Journalism is predicted to increase by 32.8 units. Finally, “Arabic Language Learning,” referred to as Arabic Language, correlated with Attitudes towards the L2 Community (a subscale of Integrativeness, $r = .350, p < .05$). Linear regression analysis indicated that for every unit of Attitudes towards the L2 Community, reported noticing in Arabic Language is predicted to increase by 31.5 units. “Consulting a Doctor,” referred to as Doctor, did not interact significantly with components of motivation from any theoretical framework. No components of the motivational self-system model (Ideal Self, Ought-to Self, Instrumentality-Promotion, Instrumentality-Prevention) correlated significantly with task-specific noticing.

*Correlation is significant at the 0.05 level (2-tailed).

Figure 9. Correlations between L2 motivation and task-specific noticing.
Results showed that the relationship between integrative motivation and noticing is one of strong significance and prediction. They also revealed that constructs of the L2 motivational self-system played no significant role in noticing of recasts. The first hypothesis posited that “Within the cognitive dimension of task-based interaction, there would be a relationship of significance between L2 motivation and noticing of feedback.” The aforementioned results confirmed this hypothesis in the case of integrative and state motivation, but not in the case of the L2 motivational self-system.

6.2. Motivation and Task Affect

In regards to the affective dimension of task-based interaction, the second part of the research question could be rephrased as follows: What is the relationship between state motivation, on the one hand, and task satisfaction, task relevance, and task difficulty, on the other?

This question was only addressed at the level of state motivation, as its purpose was to ascertain whether task-specific affect related to situational motivation. Ratings of learners’ affective evaluations of task satisfaction, task relevance, and task difficulty were each correlated with state motivation scores (obtained from motivation thermometers). One learner neglected to answer the back of the post-task reaction chart, so results were based on 43 learners. Table 2 demonstrates that satisfaction with task performance correlated significantly with state motivation across all six tasks at p-values of less than .05 (KSA, \( r = .364 \); Scariest Moment, \( r = 3.15 \); and Journalism, \( r = .325 \)) and less than .01 (USA, \( r = .477 \); Arabic Language, \( r = .436 \); and Doctor, \( r = .527 \)). Linear regression analysis quantified the significance of these relationships by indicating that for every unit of task satisfaction, state motivation was predicted to increase .6 units in USA, .6 units in KSA, .4 units in Scariest Moment, .4 units in Journalism, .7 units in Arabic Language, and .7 units in Doctor. The second hypothesis stated that “Within the affective dimension of task-based interaction, there would be a relationship of significance between L2 motivation and task satisfaction.” Results confirmed this hypothesis in all six tasks. Satisfaction with task performance significantly interacts with state motivation, though the boost to state motivation is far from major.
Task relevance correlated significantly with state motivation in all but one of the tasks at $p$-values of less than .05 (KSA, $r = .356$; Journalism, $r = .355$; and Doctor, $r = .388$) and less than .01 (USA, $r = .518$ and Arabic Language, $r = .504$). Quantification of the significance of these relationships run through linear regression analysis indicated that for every unit of task relevance, state motivation is predicted to increase by 1.2 units in USA, .6 units in KSA, .5 units in Journalism, .8 units in Arabic Language, and .7 units in Doctor. The third hypothesis posited that “Within the affective dimension of task-based interaction, there would be a relationship of significance between L2 motivation and task relevance.” Results once again confirmed this hypothesis in five out of six tasks. It could, thus, be surmised that task relevance is a correlate of state motivation, but not its predictor.

Table 2

**Correlation matrix of state motivation and affective variables**

<table>
<thead>
<tr>
<th>Affective Variables</th>
<th>USA</th>
<th>KSA</th>
<th>Scariest Moment</th>
<th>Journalism</th>
<th>Arabic Language</th>
<th>Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>.477**</td>
<td>.518**</td>
<td>.364*</td>
<td>.315*</td>
<td>.325*</td>
<td>.436**</td>
</tr>
<tr>
<td>Task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.001</td>
<td>.016</td>
<td>.040</td>
<td>.033</td>
<td>.003</td>
<td>.000</td>
</tr>
<tr>
<td>Relevance</td>
<td>.43</td>
<td>.43</td>
<td>.43</td>
<td>.43</td>
<td>.43</td>
<td>.43</td>
</tr>
<tr>
<td>Task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty</td>
<td>-.177-</td>
<td>-.169-</td>
<td>-.366*-</td>
<td>-.044-</td>
<td>-.177-</td>
<td>-.295-</td>
</tr>
<tr>
<td>Relevance</td>
<td>.257</td>
<td>.280</td>
<td>.016</td>
<td>.779</td>
<td>.257</td>
<td>.055</td>
</tr>
<tr>
<td>Task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$. ** $p < .01$.

No significant interaction was found between state motivation and task difficulty, except in one task, Scariest Moment, where a significant negative relationship was found ($r = -.366-, p = .05$). This meant that difficulty in this task was accompanied by depletion in state motivation. A null hypothesis was posited for the
relationship between L2 motivation and task difficulty. Because significance was found in only one task, the null hypothesis is retained.

6.3. Motivation and Second Language Production

In regards to the behavioral dimension of task-based interaction, the last part of the research question could be rephrased as follows: What is the relationship between L2 motivation – as operationalized by the socio-educational model, state motivation, and the L2 motivational self-system – and accuracy, complexity, and fluency in task-based interaction?

To answer this question, output from four participants was transcribed and coded for accuracy, complexity, and fluency. The participants singled out for analysis were the two most highly-motivated and the two least-motivated in the entire sample. Two reasons prompted this course of action. First, comparing the production of learners at opposite ends of the motivation continuum would better highlight any output differences they had. Second, time constraints did not allow for the transcription and analysis of more learners representing such motivational polarity. To this end, only potential directions for further research could be gleaned of these results, as the number of participants analyzed is very small. Participant selection was based on their global motivation scores, since those scores reflected more general motivational profiles. The number of words and turns produced by the most highly-and second most-highly motivated participants were 576 words in 46 turns and 1045 words in 60 turns, respectively. The least-motivated participant and the second least produced 761 words in 73 turns and 787 words in 72 turns, respectively. Focusing only on turns (which could be argued to be more indicative of language learning motivation than words), the two highly motivated learners used less turns than the two less motivated learners. Accuracy, complexity, and fluency percentages of all four participants are featured in Figure 10. Highly motivated learners were found to be more accurate, more complex, and more fluent in their L2 production than less motivated learners, with the difference being greatest in complexity.
Second language accuracy percentages for the four participants were correlated with motivational component scores from the socio-educational model (Motivation, Integrativeness, and their subscales), state motivation, and the L2 motivational self-system paradigm (Ideal Self, Ought-to Self, Instrumentality-Promotion, Instrumentality-Prevention). As presented in Table 3, accuracy correlated significantly with all three subscales of Motivation; with Intended Learning Effort ($r = .999, p < .01$), with Desire to Learn the L2 ($r = .986, p < .05$), and with Attitude towards Learning the L2 ($r = .998, p < .01$). Linear regression analysis showed that for every unit of Intended Learning Effort, accuracy is predicted to increase 9.6 units; for every unit of Desire to Learn the L2, accuracy is predicted to increase by 18.8 units; and for every unit of Attitudes towards Learning the L2, accuracy is predicted to increase 13.4 units. Interestingly, accuracy did not interact with any of the Integrativeness components. It also did not correlate significantly with state motivation or any of the components of the L2 motivational self-system. This means that basic motivation – that stripped of affective determiners like integrativeness – predicts more accurate L2 output. A null hypothesis was posited for the relationship between L2 motivation and accuracy. This hypothesis is retained only because the data analyzed is very small. Stark
comparison of the two most motivated learners with the two least motivated learners was responsible for the exceedingly high correlation coefficients in Table 3.

Second language complexity scores for the four participants were correlated with the same motivational components from the socio-educational model, state motivation, and L2 the motivational self-system. As with accuracy, complexity correlated significantly with the same three subscales of Motivation; with Intended Learning Effort \( (r = .993, p < .01) \), with Desire to Learn the L2 \( (r = .961, p < .05) \), and with Attitude towards Learning the L2 \( (r = .981, p < .05) \). Linear regression analysis demonstrated that for every unit of Intended Learning Effort, complexity is predicted to increase by 11.8 units; for every unit of Desire to Learn the L2, complexity is predicted to increase by 22.7 units; and for every unit of Attitudes towards Learning the L2, complexity is predicted to increase by 16.2 units. Also similar to accuracy, complexity did not correlate significantly with components of Integrativeness, state motivation, or any of the components of the L2 motivational self-system. So it seems from the results that basic motivation (pure desire to learn, effort to succeed, and a serious learning attitude) predicts more complex L2 output. A null hypothesis was posited for the relationship between L2 motivation and complexity. Again, the hypothesis is retained only because the data was miniscule.

Finally, fluency was correlated with major components of motivation from the socio-educational model, state motivation, and the motivational self-system. Fluency shared the same pattern with accuracy and complexity. It correlated with the three subscales of Motivation alone; with Intended Learning Effort \( (r = 1.000, p < .01) \), with Desire to Learn the L2 \( (r = .972, p < .05) \), and with Attitude towards Learning the L2 \( (r = .994, p < .01) \). Linear regression analysis indicated that for every unit of Intended Learning Effort, fluency is predicted to increase 6.6 units; for every unit of Desire to Learn the L2, fluency is predicted to increase by 12.7 units; and for every unit of Attitude towards Learning the L2, fluency is predicted to increase 9.1 units. Fluency did not correlate with any of the components of Integrativeness. It also did not correlate significantly with state motivation or any of the major components of the L2 motivational self-system. Fluency, too, seemed to be predicted by basic motivation in these four learners. A null hypothesis was posited for the relationship between L2 motivation and fluency. The hypothesis is retained once more because of limited data.
Table 3

**Correlation matrix of L2 motivation and production**

<table>
<thead>
<tr>
<th>Performance Variables</th>
<th>Intended Learning Effort</th>
<th>Desire to Learn the L2</th>
<th>Attitude towards Learning the L2</th>
<th>Integrative Orientation</th>
<th>Interest in Foreign Languages</th>
<th>Attitudes towards the L2 Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>.999**</td>
<td>.986*</td>
<td>.998**</td>
<td>.360</td>
<td>.630</td>
<td>.732</td>
</tr>
<tr>
<td></td>
<td>.001</td>
<td>.014</td>
<td>.002</td>
<td>.640</td>
<td>.370</td>
<td>.268</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Complexity</td>
<td>.993**</td>
<td>.961*</td>
<td>.981*</td>
<td>.372</td>
<td>.729</td>
<td>.672</td>
</tr>
<tr>
<td></td>
<td>.007</td>
<td>.039</td>
<td>.019</td>
<td>.628</td>
<td>.271</td>
<td>.328</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Fluency</td>
<td>1.000**</td>
<td>.972*</td>
<td>.994**</td>
<td>.405</td>
<td>.678</td>
<td>.734</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.028</td>
<td>.006</td>
<td>.595</td>
<td>.322</td>
<td>.266</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01.

6.4. Summary of Findings

The current research explored meaningful relationships between L2 motivation and important dimensions of task-based interaction. The main research question asked: *What are the relationships between L2 motivation and noticing, task affect, and production in task-based interaction?* Since a number of conceptualizations have been proposed by motivation researchers over the years, three frameworks of L2 motivation were investigated in the rarely studied setting of Arabic as a foreign language. These were the socio-educational model, state motivation, and the L2 motivational self-system. Wherever relevant, these frameworks were correlated with the cognitive construct of noticing; three task-related emotions, task satisfaction, task relevance, and task difficulty; and three indices of L2 behavior, accuracy, complexity, and fluency. Results showed that a component of Integrativeness significantly and sizably predicted learners’ overall noticing, while the larger construct of integrative motivation...
significantly and sizably predicted task-specific noticing. In other words, L2 motivation is implicated in learners’ capacity to noticing feedback in oral interaction. Results also demonstrated that, task satisfaction and task relevance correlated significantly with state motivation without predicting it. This means that task satisfaction and task relevance play a role of maintenance in state motivation, sustaining it for the length of task-based interaction. Finally, results indicated that motivation without any affective determiners significantly and appreciably predicted L2 accuracy, complexity, and fluency in four learners. In their case, raw motivational energy was accompanied with improved output quality, though analyses of larger data sets are needed for the generalization of this finding. Most interestingly, the only components to consistently emerge as significant in relations with L2 motivation were those characteristic of the socio-educational model. Components of the L2 motivational self-system were curiously absent from all significant relationships found in the study. Hence, the sensitivity of socio-cultural constructs in capturing meaningful relationships in SLA was strongly supported in the results, meanwhile the viability of the constructs proposed by the L2 motivational self-system was called into question at least in the context of Arabic task-based interaction.
CHAPTER 7: DISCUSSION

7.1. Noticing of Recasts in Arabic SLA

In this research, morphosyntax triggered the most recasts but generated the least reported noticing. Uni-dimensional categories of morphology, syntax, phonology, and lexis, on the other hand, were reported as noticed much more often. Proponents of the interaction approach (Gass, 1997; Gass & Mackey, 2006; Long, 1996, 2007; Mackey et al., forthcoming; Pica, 1994) suggested that interaction can result in feedback that focuses learners’ attention on deviations between learners’ interlanguage and the L2. If learners’ reports about their perceptions can be equated with attention, then the findings in this study are consistent with the claims of the interaction approach, at least with regard to morphology, syntax, lexicon and phonology. In terms of morphosyntax, however, these findings are less consistent with claims about the benefits of interaction. Exploring the structure of the Arabic language and the nature of errors made by its learners may shed further light on the findings.

Most feedback episodes (67%) in the study were morphology-based. Fewer learner formulations required purely syntactic, lexical, or phonological recasts. Such lopsided distribution of feedback in favor of targeting morphology-based errors is not uncommon in conversational interaction studies. Morphosyntax triggered 47% of the feedback provided during oral interaction with ESL learners in Mackey et al. (2000) and morpho-lexis comprised 40% of the feedback provided in an AFL (Arabic as a foreign language) classroom in Mackey et al. (2007). Moreover, with feedback in this study consisting of only recasts and morphosyntactic errors being more often targeted by recasts than negotiations or combined feedback (Mackey et al., 2000), the abundance of morphologically-based episodes here matched previous descriptions of L2 interaction data.

An additional factor, though, can be said to be responsible for feedback consistently addressing morphology in AFL settings more than any other linguistic domain. This was touched on briefly in Mackey et al., (2007), the only other SLA study conducted in an AFL context, and it was the importance of taking into account the nature of the Arabic language itself. As explained in Chapter 5, Arabic is a root-and-pattern language. The slightest change in a vowel, intentional or not, shifts the underlying pattern of a single word, producing one of
three outcomes: a meaningless non-word, a related but semantically-altered word, or a different lexical word altogether. As such, Arabic morphology considerably reduces the number of feedback episodes which would have otherwise been considered phonological. It also subsumes semantics entirely and lexis partially when it involves words formed through derivation. In this study, 60% \((n = 112)\) of morphological recasts resulted from non-words formed through incorrect morphological manipulations. Remaining episodes \((25.5\%, n = 48)\) either resulted from morpho-lexical errors, where morphological manipulation produced an existing word but not the one denoting the lexical meaning intend by the learner; or morpho-semantic errors \((15\%, n = 28, n = 28)\), where morphological manipulation produced an existing word but not the one representing the semantic relations intended by the learner. Table 4 provides examples of each type of morphological error.

Table 4

<table>
<thead>
<tr>
<th>Types of morphological errors made by learners of Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Word</td>
</tr>
<tr>
<td>Uttered *</td>
</tr>
<tr>
<td>انشهٍئخ</td>
</tr>
<tr>
<td>(Meaningless) ‘opinions’</td>
</tr>
</tbody>
</table>

* Nontargetlike in the context of language use.

Note that morphology in this study was distinguished from morphosyntax, which, in turn, was distinguished from syntax. That is because the morphological pattern in Arabic, in any sentence position and without any grammatical affixes, still signals form (e.g., broken plurals like ‘opinions’) and differentiates meaning (e.g., distinction between the abstract concept of fear and its beholder). The time has come to lay the groundwork for error analysis of Arabic, one with clearly defined and illustrated categories. A search of Arabic language teaching literature only surfaced a single specialized article about error analysis, Al-Ani (1972), an 11-page analysis of a limited number of errors. More extensive efforts in this regard would provide future researchers with
an analysis guide for more Arabic language samples (obtained from different proficiency levels in various language learning contexts), facilitate comparison across different studies (from which more confident generalizations can be made), and make Arabic a more research-friendly language in the investigative tradition of SLA. Figure 11 illustrates the taxonomy of error analysis followed in this study and proposed for future research.

Figure 11. Taxonomy of errors made by learners of Arabic.
Clear and uniform distinctions among error types in Arabic would help immeasurably in the interpretation of research findings. Results in the current study indicated that uni-dimensional feedback episodes, i.e., those containing single linguistic targets like morphology, syntax, lexis, and phonology, were reported as noticed around and above 60% of the time. Arabic morphology and syntax seemed especially salient to learners, with 65.4% and 63.9% reported noticing, respectively. The bi-dimensional target of morphosyntax, however, did not seem as perceptible to learners, who reported noticing morphosyntactic errors 50.7% of the time. That is, every morphosyntactic recast provided had just as good a chance of being noticed as not. Addressing these findings on the basis of separate categories turned out to be very enlightening.

Beginning with the category of morphology, it was probably more salient to learners because Arabic, as mentioned earlier, relies heavily on derivation in word formation. Another factor contributing to this high level of noticing could have been learner sensitivity to morphological patterns in the language. Researcher observations of intermediate Arabic classes noted rigorous in-class training which encouraged internalization of, and reference to, lists of basic patterns of Arabic verbs and participles. Teachers often advised learners to rely on their knowledge of patterns to decipher the meaning of unfamiliar words in new texts. Thus, it could be assumed that learners in this study were already oriented to pick up morphological patterns in Arabic speech. Their sensitivity to morphology may have induced them to report noticing of morphological errors more than others, which could explain the position of morphology as the most noticed target of recasts.

As for the perceptibility of syntax, few rules constrain word order in Arabic. In fact, the richness of morphological features of Arabic is partly responsible for the flexibility of word order. Although Arabic is commonly known as a VSO language, SVO, OVS, and VOS orders are permissible and actually quite common in interactions using MSA or dialect. The only other major syntactic difference is that adjectives come after nouns in Arabic, and that is usually fully mastered by the time learners reach the intermediate level. Syntactic errors, thus, mostly involved less commonly used compound structures, such as inverted order of number-words in number phrases, omitted prepositions, or redundant pronouns. Since number phrases are notoriously difficult to grasp, errors made during their formulation were almost always instantly noted by learners in their stimulated-recall
comments, bolstering the noticing rate of syntactic recasts. Omissions of prepositions and pronoun redundancy were not as consistently noted.

Turning now to morphosyntax, the target lowest in reported noticing, there is little doubt that agreement affixes, consisting of one- or two-letter bound morphemes in Arabic, are less perceptible than morphological patterns and rules of word order. Still, a post hoc analysis was conducted on the errors encompassed by the morphosyntactic category for further insights. Reported noticing percentages for each distinction within morphosyntax, presented in Figure 12, were revealing. Person, number, and gender agreement were reported as noticed around and above 50% of the time. Negation and definiteness were not. Again, consideration of the nature of each category engendered interesting observations. Person and number agreement errors were the highest (of the lowest) reported morphosyntactic errors, at 54.5% and 53.5% reported noticing, respectively. This slightly higher percentage of noticing of person agreement probably resulted from confusion related to incorrect person affixation, which often caused breakdowns in communication (e.g., “My opinion or yours?”). Such negotiation strategies, as explained in Chapter 2, help attract learners’ attention to problematic forms, increasing their salience. As for number and gender agreement errors, those were observed to be commonly corrected in class and written assignments, which may have played a role in their relative salience to learners. Definiteness, however, was not reported as noticed at all. Granted, only three definiteness errors were recast in the entire data set. The three recasts corrected the same error made by two learners, which was their references to America as *al-ʔamri:ka* ‘the America,’ when, as in English, proper nouns in Arabic do not require the definite article *al-*. Complete lack of noticing reports about definiteness could be attributed to learners’ cognitive conflation of *ʔamri:ka* ‘America’ with *al-wila:ja:t al-muttahida al-ʔamri:kija* ‘The United State of America,’ which is a commonly used phrase that contains the definite article prefix in every one of its words. The second least reported morphosyntactic error category was negation, which was considered morphosyntactic because its formulation in Arabic involves morpheme selection that is contingent on the properties of adjacent words. Negation requires quick multi-step processing. The typology of the negated structure has to first be determined as either verbal, verbless, or an adjectival phrase. If verbal, the tense of the head verb has to be taken into consideration. Then, one out of five
negation structures (four particles and one negation verb) is chosen on the basis of aforementioned properties: *la* negates an adjacent present tense verb, *ma* negates an adjacent past tense verb in colloquial Arabic, *lam* negates an adjacent past tense verb in MSA, *lan* negates future tense verbs, and *lajsa* (the only negation verb) negates adjacent noun and adjectival predicates, prepositional phrases, and adverbs. Finally, if *lajsa* is used, it requires further inflection for gender and first-person. The sheer processing load of negation was likely to have landed it on the lower rungs of reported noticeability.

![Chart showing the percentage of noticing reported vs. not reported for different morphosyntactic distinctions.](image)

**Figure 12.** Reported noticing of recasts across morphosyntactic distinctions.

### 7.2. Integrative Motivation: A Predictor of Noticing

The study found that learners differed markedly in their reported noticing of recasts in oral Arabic input. Featuring the means of global motivation constructs included in the study, Figure 13 shows that learners of Arabic in the US were high in positive attitudes of integrativeness, positive attitudes about the L2 learning environment, ideal self measures, and promotional instrumentality. On the other hand, they were low in ought-to self measures
(indicated by the purple line) and preventative instrumentality (indicated by the orange line). In other words, learners of Arabic in the US were not studying Arabic because they had to or because they would suffer dire consequences if they did not. They enrolled in Arabic classes because Arabic culture interested them, they were comfortable with the way Arabic was taught, they envisioned future Arabic-speaking images of themselves, and felt that Arabic would promote them on professional, intellectual, and social fronts.

![Graph of participant ratings of global motivation constructs.](image)

_Figure 13._ Participant ratings of global motivation constructs.

When these motivational constructs were correlated with learners’ reported noticing of recasts, the study found that global motivation as a whole did not significantly predict overall noticing, but a specific component of integrativeness, attitudes towards the L2 community, did. Motivational constructs were then correlated with
noticing reported in each individual task for finer analysis. There, too, more components of integrative motivation significantly predicted reported noticing. These findings provided empirical evidence for the link Crookes and Schmidt (1991) had long insisted existed between motivation and attention. Integratively-motivated learners were likely to report noticing of feedback. This significant relationship was foreseen by Schmidt (1993), who anticipated that learners with integrative motivation would pay close attention to pragmatics. Takahashi’s (2005) investigation of Schmidt’s claim found it to be true, as Japanese learners of English who had positive attitudes towards the L2 community and an “orientation toward maintaining good relationships with teachers in the process of L2 learning” in his study significantly noticed written idiomatic expressions and certain request forms. Takahashi attributed attentional allocation to personal relevance because the request forms and idiomatic expressions noticed were ones which learners felt would come in handy.

Although relevance is an important incentive, the interpretation made in this research is that noticing of form was activated by a need to communicate more coherently with the L2 community. Participants in this study signed up for two or more grueling years of Arabic language instruction, with daily classes and a nightly average of four hours of homework, in order to be able to communicate with native speakers of Arabic. The tasks presented to participants in this study asked them to do just that: to rely on their knowledge of Arabic to make themselves clear to a native speaker they barely knew (researcher), i.e., just as they would on a street in Cairo. Learners were asked to assess the role of the US in the world, prepare for a visit to Saudi Arabia, share a story of emotional turmoil, discuss the state of Arabic journalism, consult with an Arabic language specialist, and speak on behalf of a sick friend at a doctor’s office. The argument made here is that integratively-motivated participants noticed feedback on their nontargetlike utterances because they cared about making their thoughts and positions regarding each topic as clear as possible to their NS interlocutor. Comments attesting to learners’ integrative motives for communication were abundant on post-task reaction charts. Some comments are shown in (10).

(10) Post-task reactions indicative of integrative purposes of communication

a. Everyday communication is really important to me. It’s my primary motivation in learning Arabic.
b. It’s extremely important to me that I am able to interact with natives and convey my sympathy, desires, etc.

c. It’s nice to learn academic skills, but I’m more interested in communication.

d. I’m learning about things that are difficult, if not impossible, to discover except through speaking to someone from the Arab world.

e. I loved this topic [KSA] and I love speaking about people’s home environment because of their enthusiasm and warmth about the topic.

f. This task [Scariest Moment] was less about me learning and more about conveying thoughts and feelings. I want to be able to get to know speakers of Arabic, so this sort of task really motivates me.

During oral task-based interaction, participants had sophisticated thoughts to impart on the subject matters discussed. Yet, shortcomings in their interlanguage all too often failed them. Post-task musings, listed in (11), revealed that participants were irritated when a word evaded them or a structure stubbornly plagued them.

(11) Post-task reactions of frustration with limited proficiency

a. I want to be able to discuss this very important subject [Journalism] in a more formal, rich way, but I am feeling frustrated by my lack of ability to remember all my vocab even though I recognized every word you used.

b. I didn’t do as well on this task because the topic [KSA] has a lot of things I would want to say but aren’t able to yet.

c. I just wish I had more background to be able to speak more fluently.

d. It was discouraging to not know the exact word I wanted to say.

e. Totally frustrated with my [in]ability to get my point across.

f. I tried very hard to interact although I was severely held back by my limited vocabulary.

g. I was still motivated to express myself well, but it’s hard to remain as motivated and engaged when you feel frustrated by your inability to express yourself as well as you would like to.
h. *I found this exercise to be the most difficult so far [USA] because it covered a topic I am interested in and wanted to talk about but couldn’t find the words.*

To learners, troublesome words and structures were impediments in the way of clear, smooth, and potentially rewarding interactions with members of a L2 community they wished to know better. Paying attention to form in Arabic input, and especially to corrective feedback, was one way for learners to address their chronic linguistic problems. Becoming aware of the pattern of their own errors and registering respective accurate formulations would reduce learners’ often expressed agony over having to settle for basic and elementary words to get more profound meaning across. Most importantly, noting pesky mistakes and dealing with them in practice would not only enhance learner proficiency, but would eventually bring it up to a level at which learners could free their mental processing from the shackles of form to delve more deeply into content and nuance. Examples in (12) show how having taken part in spoken interaction that was infused with feedback fueled learners’ motivation for further, and undoubtedly more focused, Arabic study.

(12) Post-task reactions of appreciation of feedback
   a. *It motivates me to learn so that it won’t be so hard, so that it will be more natural, and so that I can be more comfortable with the language.*
   b. *Makes me want to study more and improve.*
   c. *Made me excited to learn more.*
   d. *Makes me think I can learn the language to a point where I can easily communicate.*
   e. *It makes me want to learn the vocabulary well and study abroad so that I can actually interact with people as in this situation [Doctor].*

Indeed, it was interesting that the most controversial of motivational constructs in L2 motivation research, integrativeness, emerged here as the lone predictor of overall reported noticing. As mentioned in Chapter 3, integrativeness was first isolated empirically by Gardner and Lambert (1959). In spite of numerous findings in which integrativeness was found to correlate more highly with L2 achievement than any other motivational
construct (e.g., Masgoret & Gardner’s 2003 meta-analysis), quite a few researchers have cast doubts about its universality (e.g., Clement & Krudinier, 1983; Dörnyei, 1990; Warden & Lin, 2000), its superiority (Lukmani, 1972), and have – more recently – questioned its validity as a concept (Coetzee-Van Rooy, 2006; Pavlenko, 2002) and its adequacy to explain L2 motivation in an increasingly globalized world (Dörnyei, 2003, 2005, 2009a). Alternative motivational concepts, largely put forward to explain the phenomenon of Global English, have suggested supplanting Gardner’s concept of integrativeness with less ethnically- or geographically-specific notions of L2 appreciation, where the identification core of integrativeness is retained but the locative boundaries of the L2 community are dismissed. International posture (Yashima, 2002), bicultural identity (Lamb, 2004), Imagined communities (Norton, 2001), and the Ideal L2 Self in the motivational self-system (Dörnyei, 2005, 2009a) were among suggested reinterpretations of integrativeness. Analysis in the current study included four constructs from Dörnyei’s motivational self-system, 10 items each, alongside the traditionally investigated motivational constructs proposed by Gardner. None of the motivational self-system constructs interacted significantly with reported noticing. This not only gives credence to Gardner’s emphatic endorsement of integrativeness as a most influential component of L2 motivation, but also restores the significance of integrativeness – as defined by Gardner – in theoretical discussions of L2 motivation.

The theoretical motivational movement afoot has all but deemed integrativeness terminologically mangled, enigmatic, and ill-suited for today’s English-thirsty world. So much so that Dörnyei and Ushioda (2011b) stated that “in the 21st century talking about integrative or instrumental orientations has a rather historical feel about it – circumstances have changed and so have research priorities and interests” (pp. xi-xii). Yet, Ideal Self, the construct purported to be more comprehensive and context-sensitive than integrativeness (Csizér & Kormos, 2009; Dörnyei, 2009a; MacIntyre et al., 2009b) did not figure prominently in this study. In fact, had integrativeness been replaced by Ideal Self, the significant relationship reported here would not have been found. Ownership of English may have indeed become diluted (Dörnyei, 2006) with every electronic gadget, reputable degree, and lucrative position demanding advanced knowledge of English of almost everyone, but languages, such as Arabic, are still very much part and parcel of their native communities. Hearing an airplane boarding announcement in English at an
international airport no longer makes one think of American, British, or Australian people, but a stream of Arabic speech on the radio before a translation voiceover fades it into the background would undoubtedly conjure up rich images of the Orient. Thus, just as motivational constructs like Ideal self have more explanatory power when it comes to Global English, integrativeness, this study has shown, was the only construct which characterized L2 motivation in the context of Arabic as foreign language.

7.3. State Motivation: A Correlate of Task Satisfaction and Task Relevance

In regards to L2 motivation and task affect, results indicated that task satisfaction and task relevance significantly correlated with state motivation, while task difficulty did not have a noteworthy effect. These findings emphasized the importance of task affect in L2 interaction, an aspect not sufficiently addressed in SLA (cf. Dörnyei’s interview in Murphy, 2010). Task satisfaction and relevance did not so much predict state motivation as they sustained it. That is, learners are expected to remain engaged in the language process so long as they feel good about the language learning task and believe that it is worth their while. As apparent from post-task comments in (13) and (14), participant feelings of task satisfaction and task relevance were interrelated and difficult to tease apart. Task satisfaction and task relevance were also strongly tied to participants’ integrative orientation.

(13) Post-task reactions about task satisfaction

a. As I love to converse about Arab culture, this activity [Journalism] was extremely enjoyable.
b. I like this task [Arabic Language] because it involved lots of chatting and was fun.
c. Sorry if I am repetitive, but I seem to be enjoying each task more than the last!
d. I really enjoyed learning about customs in Saudi.
e. I really enjoy talking about my experiences in the Middle East [Scariest Moment]
f. I am moving up and feeling better about my Arabic. I feel more comfortable taking risks in fus'hâ [MSA].
g. I am taking Arabic to learn about the Middle East’s culture and history so I enjoy doing activities like this [KSA].
I really enjoyed this task [Scariest Moment] because it was not as much information-focused but more about human interaction ... this sort of task really motivates me.

I like telling stories. It felt more real to talk about something that actually happened. Even made-up stories are really fun to do. Those are my favorite tasks.

I like talking about this stuff, so I am more motivated to learn the vocabulary when it relates to international affairs [USA].

Post-task reactions about task relevance

a. The question [Scariest Moment] was relevant to personal experiences which I want to describe accurately so that people have the right impression of me.

b. It was a normal interaction I would hope to have in the future [Scariest Moment].

c. It was a more human natural interaction [Scariest Moment], distinct from the other more abstractions.

d. I liked the practical nature of the task [KSA]. I feel that Al-Kitaab [textbook] doesn’t really emphasize practical vocabulary.

e. I really enjoy situations that may actually occur in the future.

f. It’s good to have practical situations come up sometimes, especially since they are not usually emphasized [Doctor].

g. The subject [Doctor] had a sense of urgency and also practicality/reality that I like, and I found myself really wanting to help my friend!

h. Could happen for real! [Doctor] (And I had friends that have had food poisoning in Arab countries.)

i. Greatly important to understand how to communicate in an emergency situation, especially a medical emergency [Doctor].

j. I felt personally connected to the topic and it was a genuine conversation [Arabic Language].

k. I feel this task [USA] will come up a lot when speaking with Arabs.
1. *Difficult topic* [USA] *but one that I would very much like to discuss with Arab speakers.*

m. *Applying Arabic to real-world scenarios motivates me to learn more and process at a higher level* [USA].

Learner satisfaction with tasks across the board was unanticipated. Recall that the study relied on needs analysis results to guide the design of six tasks, three so-called high-motivation tasks and three so-called low-motivation tasks. High-motivation tasks (USA, KSA, and Scariest Moment) included learner preferences explicitly stated in the needs analysis, which in this case were politics, opinion articulation, Arab culture, and narration. Low-motivation tasks (Journalism, Arabic Language, and Doctor) were designed to fit the descriptions of functions learners explicitly stated they did not need, which in this case were boring text-book topics, irrelevant linguistic discussions, and medical consultations which learners felt they could manage in English. So, before participants took part in task interaction, they did not expect to ever be in situations in the foreseeable future where they would need to perform such functions. Analysis of task satisfaction, task relevance, and task difficulty after task-based interaction, however, did not reflect learners’ previously stated preferences. Figure 14 shows that task satisfaction was constant throughout the six tasks, task relevance was high in five out of the six tasks, and that task difficulty was not much of an issue to learners. Most interestingly, analysis of state motivation, illustrated in Figure 15, showed that the proposed high and low motivation distinction never materialized in this study. That is, learners rated their state motivation for all tasks highly, regardless of previously stated topic preferences.
**Figure 14.** Participant ratings of task satisfaction, task relevance, and task difficulty.

**Figure 15.** Participant ratings of state motivation across interaction tasks.
So, what happened to learners’ explicitly specified language learning preferences? Why were learners motivated to complete tasks they had previously indicated were irrelevant to their needs? The answer proposed here is that modality, speaking, trumps topic preferences. The needs analysis showed that speaking was the weakest ability in intermediate learners of Arabic. It also revealed that speaking was the one skill learners wanted to focus on more than any other. Since all tasks in this study focused on speaking, learners were not only satisfied, but personally invested in the successful completion of all tasks. Strong endorsement of relevance across tasks was likely the result of participant appreciation for the chance to practice speaking. Participants made many remarks to the effect that they rarely got to speak Arabic in class. With Arabic classes lasting only 50 minutes, class observations noted that speaking exercises were either skipped or rushed to make more time for revision of homework, reading of new texts, or listening to classmate presentations, which were usually read off prepared sheets of paper and rarely spontaneous. Group speaking exercises in which learners speak with one another were strongly disliked by learners, the structured interviews revealed, because they felt they were not getting any feedback on how they were doing. Post-task reactions listed in (15) lamented the general scarcity of speaking opportunities in the Arabic language teaching program.

(15) Post-task reactions about limited opportunities for speaking

a. Speaking consistently in Arabic for the last two hours reminded me what I love about it. It was nice to get into that gear again – considering this semester has moved very quickly and I feel that time for speaking/enriching the Arabic experience takes a back seat.

b. I like practicing Arabic. I never get to just speak!

c. I absolutely love conversing. Although it is very difficult, being able to speak in Arabic is one my life time goals.

d. Conversational uses of Arabic seem extremely relevant to me as they require me to listen, understand, and then formulate my own questions.

e. I don’t know why, but this one was fun [Scariest Moment]. It’s just fun to talk.
By engaging participants in speaking, one of their major language learning needs was met. The rare opportunity to converse with a native speaker of Arabic on a variety of topics for nearly two hours seemed to form the basis for task satisfaction in this study. Satisfaction then gave way to feelings of relevance and motivation, as indicated by participant comments in (16). In those comments, participants shared that topics which did not seem exciting at first became interesting to learners as the interaction progressed.

(16) Post-task reactions regarding the motivational effect of speaking

  a. I wasn’t that interested in the prompt [Doctor], thought it was fun once we started.
  b. I was relatively motivated at the beginning of the interaction, but my motivation grew as the activity drew on [Arabic Language].
  c. By the end, I was very much enjoying the conversation [Arabic Language].
  d. I figured the poorer I do the more motivated I would be to get better, but this conversation felt really good; understanding and speaking properly [Arabic Language].
  e. I don’t like journalistic words in general, but as we went on the conversation became interesting and animated [Journalism].

In regards to task difficulty and state motivation, results from this study did not characterize the relationship one way or another. It may have been that tasks used in the study were not difficult enough to interact meaningfully with the measure of state motivation. Thus, no claim was made. However, a qualitative sense of how task difficulty was perceived by learners could be gleaned from their comments about the Scariest Moment task. In this task learners were asked to find out from a woman sitting in a hotel lobby in Jordan why she appeared so distraught after receiving what seemed like an alarming phone call. The prompt then asked them to share a personal story with her about a frightening experience that had happened to them. Some learners indicated that they did not find this task to be particularly relevant. One participant wrote, “I couldn’t necessarily imagine myself having such a spontaneous interaction.” As a result, relevance in this task did not interact significantly with motivation. Other learners noted that this task was difficult because it required narration of a moment of fear, which necessitated the use of words they did not know. Intermediate learners of Arabic knew words like دجاجيد
‘good’ and 'bad,' but did not know words like ‘shocked,’ ‘disappointed,’ ‘heartbroken,’ or even the proper morphological pattern for the word ‘scared.’ One participant indicated, “I found that I was unfamiliar with ways to express my feelings,” while another wrote, “Explaining how you would feel in another language is always difficult.” Repeatedly running into language deficit pits during this task increased the number of pauses and reformulations. Participants told their stories in disconnected bursts of speech as a result. Their lack of fluency on what should have been a simple task perplexed them at first then gave way to discouragement, “This interaction was harder than the second [Arabic Language] and third ones [Journalism]. It was not difficult to ask how the person was feeling but difficult to relay a personal story in Arabic, mostly because I don’t really relate stories about the scariest moments of my life to friends in English." It was no wonder that this task ranked high in difficulty and that it was the only task to show significant negative correlation with state motivation.

7.4. Basic Motivation: A Predictor of Accuracy, Complexity, and Fluency

The current research had little to contribute on the relationship between L2 motivation and production primarily because output from only four learners was analyzed, that produced by the two most-motivated participants and the two least-motivated in the sample. Results indicated that L2 accuracy, complexity, and fluency significantly correlated with the three subscales of basic Motivation; that is, motivation without its affective determiner of integrativeness. The three subscales were Intended Learning effort, Desire to Learn the L2, and Attitudes towards Learning the L2. Recall that within the cognitive dimension of task-based interaction, integrativeness was found to sensitize learners to noticing of feedback. Integrativeness within the behavioral dimension of task-based interaction seemed to play no such role. It had no relationship to the quality of language produced by the four learners. What was found to relate significantly to accuracy, complexity, and fluency was diligence, strong desire to learn the language, and a positive attitude about the hardships that language learning entails. In other words, improvement in L2 production has more to do with the cognitive and behavioral components of L2 motivation than with its affective component.
Analysis of production data also indicated that more-motivated learners produced less turns than less-motivated learners. That was because high levels of accuracy, fluency, and complexity in the output of more-motivated learner speech required fewer turns to get a point across. Less motivated learners paused frequently in their speech, reformulated many of their structures, and repeated phrases regularly as they thought of more things to say. This augmented their word and turn count, which essentially contained more repetitions than variable words and turns. Of course, this may not be an issue of L2 motivation alone; proficiency level is also likely to be implicated. Dörnyei and Kormos’ studies (Dörnyei, 2002; Dörnyei & Kormos, 2000; Kormos & Dörnyei, 2004) resulted in a similar finding, where a significant negative relationship was encountered between proficiency and number of words in learners who had high task attitudes. Dörnyei and Kormos explained that increased control of the L2 lead to more concise L2 production.

One conclusion surmised by Dörnyei and Kormos’ studies, however, was not supported in this study for reasons mostly likely linked to differences in methodology. They stated that motivational variables have more of an impact on quantity of L2 output than on quality. Although this study only analyzed the output of four learners, a clear relationship between basic motivation and quality of L2 production was found. Accuracy, complexity, and fluency not only were significantly related to basic motivation, but were sizably predicted by each one of its subscales. This research is hardly comparable to Dörnyei and Kormos’ work, though. Task-based interaction in Dörnyei and Kormos’ data took place in learner-learner dyads, whereas this study employed native speaker-learner dyads. More speech is likely to be produced when two learners are communicating in a language other than their own, as found by Dörnyei and Kormos, since breakdowns in communication are more likely to occur in such dyads than within a dyad which includes a native speaker. Also, Dörnyei and Kormos’ tasks were argumentative, which – by definition – necessitate continuous speaking until an argument is settled or a point is made. Ending up with a sizable amount of speech in their work was thus highly probable. The tasks in this study had learners ask questions of a native speaker, express an opinion, or narrate a story. Limited speech is required to ask a few questions, opinions did not take long to formulate, and the length of story-telling depended on how difficult participants found the task. Since most participants were taken aback by how cognitively and structurally demanding the story-
telling task was (Scariest Moment), most cut their stories short. At any rate, the significant relationship found between basic motivation and L2 production in this study ought to be interpreted cautiously as a result of the exceedingly small amount of production data analyzed. Future research would do well to ascertain whether a relationship of significance between L2 motivation and production persists in larger data sets.

7.5. Dynamic Systems: Interactions between Cognition and Affect

Dörnyei (2009b, 2009c, 2010a) suggested that motivation would be best understood in the context of language as a dynamic system, where the three major components of cognition, affect, and behavior (representing the trilogy of mind) are in a constant state of interplay. The current research found this to be true in the case of cognition and affect. Two significant correlations were found: one between noticing and task satisfaction and another between noticing and low ratings of task difficulty, i.e., task ease. Task satisfaction significantly predicted noticing in the USA task \( (r = .315, p < .05) \), with every unit of satisfaction predicted to increase noticing by 10.7 units. That was not surprising since most participants who took part in the needs analysis indicated they were politics majors or minors, 81.7% \( (n = 49) \). Many participant comments also commingled interest in politics with interest in the L2 community. As one participant put it, “Perhaps more important than politics is understanding the people who are subject to them.” As this study found a significant relationship between integrativeness and noticing within the cognitive dimension of task-based interaction, it made perfect sense that task satisfaction in a task which catered to integrativeness was a predictor of noticing as well.

Lack of task difficulty, or task ease, significantly predicted noticing in the Journalism task \( (r = -.421-, p < .01) \), with every unit of task ease predicted to increase noticing by 22.4 units. This too was understandable. Journalism was a topic for which participants had a great deal of vocabulary. Unit three in their textbook is entitled “Together with Journalism.” Participants even noted in their comments that this topic was very familiar, “We talk about this issue in class a lot.” With difficulty not being an issue for participants in this task and speaking being a welcomed mode of interaction, participant state motivation was high. Recall that state motivation in the Journalism task was the only motivational component, other than Attitudes towards the L2 community, to correlate
significantly with overall noticing. Hence, the positive and significant interaction between task ease and noticing was explicable.

The meaningful correlations across cognition (noticing) and affect (task satisfaction and task ease) are testament to the convoluted nature of L2 learning. Such interrelations between seemingly separate notions emphasize the importance of researching language as a whole, rather than restricting analyses to discrete segments or aspects of language – which may provide valuable insights on matters under investigation, but offer narrow perspectives on how research findings fit into the bigger picture of L2 learning.

7.6. Implications

7.6.1. Theoretical Implications

7.6.1.1. SLA research

The research investigated the relationship between L2 motivation and noticing, task affect, and production in task-based interaction. Noticing of corrective feedback was found in previous interaction research to be influenced by variables such as salience, frequency, language instruction, language background, language learning aptitude, and working memory, to name a few (Alanen, 1995; N. Ellis, 2002a, 2002b; Lyster & Mori, 2006; Mackey, 2006b; Mackey et al., 2007; Mackey et al., 2000; Mackey & Philp, 1998; Mackey et al., 2010; Mackey et al., 2002; Mackey & Sachs, in press; Philp, 2003; Robinson, 1996; Schmidt & Frota, 1986; Skehan, 1998; Trofimovich et al., 2007). This research provided evidence that L2 motivation is another important mediator of noticing, particularly its integrative component of Attitudes towards the L2 community. Integrativeness has been linked in previous research to noticing of pragmatics (Schmidt, 1993; Takahashi, 2005). This research found that integrativeness is also linked to noticing of morphological, morphosyntactic, syntactic, phonological, and lexical errors in task-based interaction.

Furthermore, conducting research in the setting of Arabic as a foreign language highlighted the importance of considering how language-specific qualities may affect L2 noticing. Results confirmed the efficacy of recasts in
addressing errors of uni-dimensional language domains, i.e. those which involve one-step processing, such as morphology, phonology, lexis, and syntax. Recasts, however, did little to increase the salience of morphosyntax, a bi-dimensional language domain. Morphosyntactic decisions require more multi-level processing than other domains. Thus, limited benefits from recasts may not indicate lack of recast efficacy, as argued by recast skeptics (Lyster, 1998a, 1998b; Lyster & Ranta, 1997; Panova & Lyster, 2002); rather, they highlight the weight of processability of certain language domains when feedback is provided implicitly.

In regards to affect, results in this research underscored the utility of investigating the emotions rampant in L2 learning environments. Results showed that taking time to ensure task satisfaction and task relevance paid off in prolonged learner engagement with language learning materials. Even more importantly, analysis of the data from a dynamic systems approach revealed significant interactions between task affect and noticing. This means that language learning emotions are considerably more critical to L2 processing than previously thought, as noticing is pivotal to potential L2 learning. On the behavioral front of task-based interaction, the implication from this study is that, contrary to previous findings, basic L2 motivation stripped of affective determiners could impact the quality of L2 output. This implication however is gleaned cautiously because it was based on very little data.

7.6.1.2. Second language motivation research

Second language motivation was operationalized using measures from three distinct motivational conceptualizations: socio-educational components (Gardner, 1985, 2001, 2006), a state motivation measure (Gardner & Tremblay, 1998; Julkunen, 1989, 2001; Tennant & Gardner, 2004; Tremblay, Goldberg, & Gardner, 1995), and L2 motivational self-system constructs (Dörnyei, 2005, 2009a, 2010b). The only set of motivational measures which interacted significantly with noticing was that belonging to the “Integrative Motive” proposed by Gardner’s socio-educational model of SLA. The only set of motivational measures which interacted significantly with L2 production was also that belonging to the “Motivation” construct proposed by the socio-educational model. These findings attest to the relevance of the socio-educational framework in language learning contexts such as Arabic as a foreign language. They also point to the utility of comparing original frameworks with their
most recent counterparts in different language learning contexts, as various frameworks may be a better fit for some language learning contexts than others. The L2 motivational self-system was put forward as a solution to the phenomenon of Global English. It is important to note, that its advocates did not presume that the motivational self-system would be relevant to all language learning contexts. This research confirmed that it was not applicable to the context of teaching Arabic as a foreign language in the US. That is, the scales used in this research to measure ideal and ought-to selves did not interact significantly with indices of task-based interaction in learners of Arabic. This may be more an issue of item refinement on scales measuring possible selves than an issue of the viability of possible selves as motivating constructs. Moreover, this research coordinated L2 motivation with actual indices of task-based interaction, not L2 achievement as is the norm. L2 motivational self-system research found significant associations between the ideal self and language achievement. Dörnyei (2006) stated that it is still unclear how ideal and ought-to selves affect the actual learning process. This research revealed that the two types of selves – as currently measured in the field – played no role in the cognitive and productive language behavior of learners of Arabic in the US.

7.6.2. Practical Implications

Practical implications originating from the research primarily address the language learning context of Arabic. First, there is a need to establish error analysis taxonomies in Arabic SLA to achieve consistency in the coding and analysis of data from different Arabic language learning contexts. Second, a consensus on transliteration of Arabic data would be ideal, for the situation as it stands today is confusing. Several transliteration styles were encountered in preparation for this research, but for Arabic to take its rightful place in the investigative tradition of SLA, a norm of Arabic transliteration adhered to by researchers of Arabic is an absolute necessity. Third, morphosyntactic errors were found to prevail in oral Arabic interaction, and recasts succeeded in increasing the perceptibility of only half of those errors. Having isolated this problem area, tasks could be custom-designed to address these difficult-to-perceive morphosyntactic errors using a combination of explicit and implicit types of feedback. Fourth, it would behoove instructors of Arabic to set aside time for one-on-one speaking exercises. Since class time is taken up by lessons, instructors could consider scheduling learners for once-a-week speaking sessions
with teaching assistants in the Arabic department. Extra credit could also be offered to learners who record their spontaneous interactions with native speakers of Arabic on or off campus. In any case, diligent effort should be invested in identifying opportunities for learners to speak at length. Fifth, politics and culture would make good topics for speaking exercises. Although this research did not find a significant relationship between task preferences and motivation, it did find that integrativeness appreciably predicted noticing of feedback in oral task-based interaction. As a result, engaging learners of Arabic in discussions pertaining to politics or culture would maximize the developmental benefits of interaction. Since learners outside of this research’s sample may harbor other interests, a needs analysis and adoption of learner topic preferences would cater to learners’ integrativeness, similarly enhancing their chances of improvement through interaction. Finally, task satisfaction and task relevance were found to sustain situational motivation. So, when targeting language domains which are notoriously difficult for learners to process, such as negation and number phrase formation in Arabic, taking learner preferences into account would be useful in prolonging learner engagement.

7.7. Limitations

One limitation of the study was that the number of participants recruited for the needs analysis stage was too small. Tasks design in further research would do well to base task construction rationales on a broader base of learners of Arabic than the 60 involved here. Another limitation concerned the measure for state motivation. Analysis of comments on post-task reaction charts, which measured state motivation, revealed that participant were not clear about what to mark on the motivation thermometer. One participant understood that he was supposed to mark his “energy level” rather than his level of state motivation, while another understood that the thermometer ought to show a progression in motivation, which of course was not the case. Such misunderstandings were cleared up by the researcher immediately, but future research relying on similar post-task reaction charts ought to fine-tune the instructions. Refinement of instrument instructions would ensure the validity of participant responses and prevent researchers from eliminating hard-to-come-by participants. A third limitation was that a measure of state motivation was only obtained during the task-based interaction stage of the study. A prior measure of state
motivation taken during regular classroom interaction would have enabled a comparison of levels of motivation before and after catered task-based interaction. Had a prior measure of state motivation been obtained, conclusions could have been made regarding whether the incorporation of language learning needs increased L2 motivation or not. The way the experimental design was set up here allowed for claims to be made regarding correlation of state motivation with cognitive, affective, and behavioral indices of task-based interaction, but did not allow an investigation of changes in motivation across time. Finally, stimulated-recall sessions were conducted one day after task-based interaction. Sooner participation in stimulated-recall sessions would have circumvented any memory decay. Also, veridicality concerns pertaining to double-exposure to data inherent in stimulated-recall protocols, once during task-based interaction and again during stimulated-recall sessions, necessitates cautious interpretation of noticing findings.

7.8. Future Research

The research could be extended in a multitude of ways. First of all, a needs analysis of more intermediate-level learners of Arabic would provide practitioners and researchers with more generalizable language learning needs from which more tasks could be constructed. Needs analyses could also be conducted to identify the language learning needs of beginner and advanced-level learners of Arabic for a more holistic understanding of what learners would like to achieve from their Arabic language learning program. Secondly, participants were observed to notice feedback differentially and along a continuum of awareness akin to that specified by Schmidt (1990). Further exploration of which language structures were noticed at which levels of awareness (noticing or understanding) and the prosodic or emphatic circumstances pertaining to awareness at each level would provide valuable information on salience and processability. Thirdly, results indicated that speaking overrode task preferences because learners had appreciated the rare opportunity to speak. It would be very interesting to see whether learner preferences materialized as significant factors in L2 motivation in tasks using the modality of writing. Additionally, some learners indicated that they had visited an Arabic-speaking country in the past. A fruitful venue of research would be to investigate whether L2 motivation was related in any way to prior exposure
to Arabic from native speakers of the language in their own homelands. Another worthwhile direction for research would be to explore whether there was a relationship between L2 motivation and development of specific target forms in task-based interaction. Most L2 motivation research focused on end-of-the-semester achievement grades in correlations with motivation. An experiment designed to trace the acquisition of particular forms as it took account of L2 motivation would be most enlightening. It would also shed much needed light on how L2 motivation impacts L2 learning in process rather than simply in product. Also, within the context of task-based interaction, another direction would be an assessment of whether L2 motivation related to modified output. The research found that L2 motivation was related to noticing of feedback in oral task-based interaction. An exploration of whether motivation-related noticing subsequently leads to modified output would be a natural progression forward in this line of research.

7.9. Conclusions

Very limited SLA research has been conducted in AFL (Arabic as a foreign language) contexts. Careful and laborious effort was required to parse the labyrinthine Arabic interaction data, mostly because no comprehensive guides regarding error analysis were available in Arabic SLA. Such work is needed for any serious SLA research in AFL contexts to take place and expand. As this research has shown, the AFL context is an intriguing environment for L2 research, one which is increasingly gaining attention in today’s world of dissolving borders. The non-typical structure of Arabic offers researchers numerous opportunities to extend generally accepted concepts in SLA for tests of cross-linguistic applicability. Furthermore, Arabic is just as suitable a research language for SLA investigations as any other, provided that foundational work, such as error analysis taxonomies, high frequency word lists, and language development trajectories takes root and evolves on the basis of scientifically-sound research.

In a medium of Arabic task-based interaction, this research noted the predominance of morphologically-based errors in learner speech and made important distinctions among morphological categories in Arabic. The uni-dimensional category of morphology was the most amenable to noticing in Arabic, followed by syntax,
phonology, and then lexis. The bi-dimensional category of morphosyntax was most elusive, as its subcategories of agreement, negation, and definiteness were burdened by heavy cognitive processing.

Attitudes towards the L2 community, a component of Gardner’s notion of integrativeness, was found to significantly predict reported noticing in intermediate learners of Arabic, proving a long theorized link between L2 motivation and attention. At the more situated task level, this research found that task satisfaction and task relevance significantly maintained state motivation throughout individual language learning tasks, while task difficulty did not have much of an effect on state motivation. On the language performance front, basic motivation – that devoid of affective determiners – was found to strongly predict L2 accuracy, complexity and fluency. As to how different dimensions of task-based interaction interacted with one another in the larger scheme of L2 learning, this research found that, true to recent contentions about language being a dynamic system, affect – task satisfaction and task ease – interacted with cognition, meaningfully predicting reported noticing of corrective feedback in two tasks.

Finally, a word must be said about the deafening silence of the L2 motivational self-system in relation to noticing and production in oral task-based interaction. None of the major components of the self-system emerged as significant in any of the relationships investigated in the study. This in no way detracts from its legitimacy as a theoretically-motivated and empirically-validated motivational construct, yet it certainly restricts the self-system’s scope of relevance across language learning contexts. The L2 motivational self-system offers adequate explanations for the motivation of learners of Global English for whom the system was originally posited. Languages which are still quintessential symbols of their communities, like Arabic, do not fit the self-system mold. The traditional components of integrative motivation proved to be more representative of the affective orientations of learners of Arabic. They also emerged as the sole measures sensitive enough to be indicative of meaningful interactions within the fluid psycho-linguistic sphere of Arabic learning. Thus, to borrow MacIntyre et al.’s (2009a) analogy, care in current theoretical discussions of L2 motivation should be taken not to throw the integrativeness baby out with the socio-educational bath water.
Appendix A. Transliteration Key

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<tr>
<th>Consonants</th>
<th>Arabic Letter</th>
<th>IPA Symbol</th>
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Appendix B. Needs Analysis Consent Form

PROJECT TITLE
Motivation in second language communicative interaction

PROJECT DIRECTOR
Professor Heidi Hamilton
Linguistics Department, Georgetown University

PRINCIPAL INVESTIGATOR TELEPHONE
Maymona Khalil Al Khalil (310) 283-3076

INTRODUCTION
Psychological and socio-educational research has shown that higher levels of motivation increase the rate of learning, sustain it over prolonged periods of time, as well as make up for considerable deficiencies in learners’ language aptitude and learning conditions. Since previous research suggests that motivation is in a continuous state of flux, with motivational perspectives changing and evolving over time, this project will make significant contributions by (a) identifying the needs of Arabic language learners, and (b) investigating which types of tasks lead to motivational orientations that are most conducive to second language learning in a task-based interaction context.

You are invited to consider participating in a research study to investigate the role of language learning motivation in communicative Arabic interaction.

STUDY PLAN
This study is designed for intermediate learners of Arabic in American universities. About 100 learners of Arabic will take part in this study. Your suitability for this study will be determined by results of departmental placement exams.

If you decide to volunteer to participate in this study, we will ask you to fill out a needs analysis questionnaire. This questionnaire takes about 15-20 minutes to complete.

You can stop participating at any time. However, if you decide to stop participating in the study, we encourage you to talk to the researcher first.

RISKS & BENEFITS
There are no risks to participating in this study. There is no expected benefit other than the possibility that learners of Arabic may benefit in the future from the information we obtain in this study.
CONFIDENTIALITY

Your name will not be used when data from this study are published in conference records, journals, book chapters, or any other publications.

Every effort will be made to keep your research records and other personal information confidential. After collection of the data, we will immediately assign all your data a code and will never intentionally identify you. Hard-copy data, the questionnaires, will be safely locked in file cabinets. Furthermore, data in its entirety will be destroyed or deleted after six years. However, we cannot guarantee absolute confidentiality.

YOUR RIGHTS AS A RESEARCH PARTICIPANT

Participation in this study is entirely voluntary at all times. You have the right not to participate at all or to leave the study at any time. There will be no consequences for you or anyone in your class or your program if you decide to stop participating.

QUESTIONS OR PROBLEMS?

Call Maymona Al Khalil at 310-283-3076 day or night if you have questions about the study.

Call the Georgetown University IRB Office at 202-687-6553 with any questions about your rights as a research participant.

Statement of Person Obtaining Informed Consent

I have fully explained this study to the subject. I have discussed the study’s purpose, the possible risks and benefits, and the voluntary nature of participation. I have invited the subject to ask questions and have answered any questions that the subject has asked.

________________________________________ __________________________
Signature of Person Obtaining Informed Consent Date

Question

Would you be interested in participating in the second stage of research, which involves interaction in Arabic? If so, the researcher will contact you a few weeks later to arrange for interaction sessions.

☐ Yes E-mail address: ________________________________
☐ No

The subject will receive a copy of this form after the completion of the informed consent process.
Appendix C. Task-Based Interaction Consent Form

PROJECT TITLE
Motivation in second language communicative interaction

PROJECT DIRECTOR
Professor Heidi Hamilton
Linguistics Department, Georgetown University

PRINCIPAL INVESTIGATOR TELEPHONE
Maymona Khalil Al Khalil (310) 283-3076

INTRODUCTION
Psychological and socio-educational research has shown that higher levels of motivation increase the rate of learning, sustain it over prolonged periods of time, as well as make up for considerable deficiencies in learners’ language aptitude and learning conditions. Since previous research suggests that motivation is in a continuous state of flux, with motivational perspectives changing and evolving over time, this project will make significant contributions by (a) identifying the needs of Arabic language learners, and (b) investigating which types of tasks lead to motivational orientations that are most conducive to second language learning in a task-based interaction context.

You are invited to consider participating in a research study to investigate the role of language learning motivation in communicative Arabic interaction.

STUDY PLAN
This study is designed for intermediate learners of Arabic in American universities. About 50 learners of Arabic will take part in this study. Your suitability for this study will be determined by results of departmental placement exams.

If you decide to volunteer to participate in this study, we will ask you to do the following things:

1. On the first day of interaction:
   a. You will be asked to fill out a motivation questionnaire, which takes about 10 minutes to complete.
   b. Then you will interact with the researcher in Arabic, completing a series of oral tasks.
   c. After each task you will be asked to fill out a short reaction chart in which you evaluate tasks in terms of how personally interesting, relevant, satisfying, and motivating you have found them.

2. On the following day:
   a. You will meet the researcher again for more task interaction in Arabic and completion of reaction charts. Your interaction on both days will be video/audio-recorded for later reference (your name will not be associated with any of the recordings).
   b. Finally, you will take part in a stimulated-recall session, a method in which the researcher shows you video clips of your interactions in Arabic and asks you to recall what you were thinking during those clipped moments.
We expect that you will need to devote up to 6 hours of your time to this study. Questionnaires are expected to take from 20-30 minutes. Task-based interaction will take about 2 hours on the first day, and 3 hours on the second and final day.

However, if you decide to stop participating in the study, we encourage you to talk to the researcher first.

**RISKS & BENEFITS**

Possible risks include inadvertent disclosure of your name/personal information or accidental release of your audio- or video-recorded data. Strict measures, however, will be taken by the researcher to ensure that all participants’ identifiable information remains confidential to the fullest extent possible.

There is no expected benefit other than having the opportunity to practice your Arabic with a native speaker of the language through the use of communicative tasks. Other learners of Arabic may benefit in the future from the information we obtain in this study.

**CONFIDENTIALITY**

Your name will be replaced by an ID code (e.g., Participant 11) in all the data collected in this study. It will not be used when data from this study are published in conference records, journals, book chapters, or any other publications.

After collection of the data, we will immediately assign all your data a code and will never intentionally identify you. All hard-copy data, such as questionnaires, will be safely locked in file cabinets. All soft-copy data, such as video and audio files, will be saved in password encrypted files on the researcher’s personal computer. Furthermore, data in its entirety will be destroyed or deleted after six years.

Though every effort will be made to keep your research records and other personal information confidential, we cannot guarantee absolute confidentiality.

**WILL I BE PAID FOR PARTICIPATING?**

Study participants who complete all the steps in the study will be compensated for their participation.

Participants will receive 5 extra-credit points applicable to a quiz (if agreed to by their instructors). In the event that extra-credit is not offered, participants will be awarded a $10 gift card to Uncommon Grounds.

**YOUR RIGHTS AS A RESEARCH PARTICIPANT**

Participation in this study is entirely voluntary at all times. You have the right not to participate at all or to leave the study at any time. There will be no consequences for you or anyone in your class or your program if you decide to stop participating.

**QUESTIONS OR PROBLEMS?**

Call Maymona Al Khalil at 310-283-3076 day or night if you have questions about the study.

Call the Georgetown University IRB Office at 202-687-6553 with any questions about your rights as a research participant.
**Statement of Person Obtaining Informed Consent**

I have fully explained this study to the subject. I have discussed the study’s purpose, the possible risks and benefits, and the voluntary nature of participation. I have invited the subject to ask questions and have answered any questions that the subject has asked.

________________________________________  __________________________
Signature of Person Obtaining Informed Consent  Date

**Consent of Subject**

I have read the information provided in this Informed Consent Document.

My questions were answered to my satisfaction.

I voluntarily agree to participate in this study.

________________________________________  __________________________
Signature of Subject  Date

________________________________________
Printed Name of Subject

Upon signing, the subject will receive a copy of this form, and the original will become part of the participant’s record.
Appendix D. Structured Interview Protocol

Arabic as a foreign language student needs interview protocol and prompt questions

These questions are part of a research project into the current and future needs of students taking Arabic language classes. This project is being conducted by a graduate student as part of the requirements for a doctoral degree. The goal is to identify the reasons you have for studying Arabic. What uses do you have for Arabic now? What uses do you anticipate having for Arabic in the future? The information you provide is very important to the results of the study and for developing materials that best meet the needs of Arabic language learners like yourself. Therefore, it is important that you offer frank answers. Your personal responses will not be shared with your instructor or the Arabic department. To ensure your anonymity, participant responses will be reported in a collective manner. This interview will take about 30 minutes to complete. Information you provide during this interview will be used only for the purpose mentioned above. If you have any questions or comments regarding this interview or the study, please feel free to contact the researcher, Maymuna Al Khalil (mka26@georgetown.edu). Thank you very much for your participation.

Primary Question

According to the United States government, Arabic is categorized as one of the four most difficult languages for English speakers to learn. The other three are Chinese, Korean and Russian. Why did you choose to learn Arabic, and not an easier language like French or Spanish?

Note: This is a multi-dimensional question. The participant will not be interrupted as he/she list their reasons for enrolling in an Arabic class. Once the interviewer has heard the participant out, she will follow with prompts and probes –listed below – that are relevant to the content of participant responses.

The following questions will not necessarily be asked one by one, as some of them may not be relevant to participants or may have already been answered in responses to previous questions. The participants will be allowed to set the agenda in order to allow them to do most of the talking. The purpose of the probes is to get participants to be specific about their answers. Some questions include a list of optional answers. The interviewer will not lead participants by listing these possible answers, but will merely mark the areas equivalent to participant responses. Also, whenever participants ask questions like “What do you mean?” the interviewer will respond with a non-biased response such as, “You tell me”.

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Section A: Social Uses of, and Needs for, Arabic

1) *In the case of heritage learners*

Do you ever use Arabic at home, or when you are visiting family members, relatives or friends, or when they are visiting you? □ Yes □ No

If so, who do you use Arabic with, and how often? (Check all persons that apply and the frequency with which Arabic is used with them.)

<table>
<thead>
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<th>Relationship</th>
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<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
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<td>Grandfather</td>
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2) *All participants*

With whom is it important to you to use Arabic? (Check all persons that apply.)

□ Grandmother □ Grandfather □ Mother □ Father □ Brother
□ Sister □ Husband/wife/partner □ Roommates □ Relatives
□ Friends □ Work colleagues □ Arabs in public areas
□ Others (specify) ______________________________________

3) *If they have visited an Arab country*

- What did you find interesting in the Arab country you visited?
- What was your favorite experience in that Arab country, either in/out of class?
- What was your least favorite experience in that Arab country?
- Were you able to communicate with Arabs during your trip?
  - If so, what kind of tasks do you carry out in Arabic? Which tasks were too difficult?
  - If not, what kept you from communicating in Arabic?
- Did your Arabic improve as a result of your trip?
4) *All participants*
   - Do you think you will visit an Arab country soon (or again)? ☐ Yes ☐ No
   - Why did you and/or will you visit an Arab country? (Check all that apply)
     □ Born there                □ To visit friends or relatives □ For religious purposes
     □ Tourism/vacation         □ Military service                 □ As an escort for other visitors
     □ Sports events (specify)  □ To study there (if so, check the subject: □ Arabic language □ Other
     □ For business/work (specify: ________________________________ )
     □ For academic research (specify) ________________________________
     □ To attend a conference on ____ with papers presented in □ Arabic, □ English, □ Both
     □ Other reasons (specify)  □ ________________________________________

**Section B: Other Reasons for Studying Arabic**

5) Read the following reasons to learn Arabic. Mark how personally relevant each one is to you. It is perfectly acceptable for you to say that an aspect is not relevant to you personally. Rate the importance of each of the following reasons to you on a scale from 0-5, with 5 = great importance, 3 = average importance, 1 = minor importance, 0 = no importance to you.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate better with family members, relatives or friends.</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Satisfy a university language requirement.</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Satisfy your interest in some aspect(s) of Arabic culture</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Understand your own ethnic heritage</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Use in connection with religious activities of some kind (specify)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Use in present or future academic work (specify)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Use in present or future business or employment (specify)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Use in present or future professional/vocational training (specify)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Use when visiting an Arab country for tourism/vacation</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Other (specify) ........................................................................</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Other (specify) ........................................................................</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

6) Does the following statement apply to you? “I am studying Arabic for no particular reason.”
   □ Yes ☐ No
Section C: Changes you would like to see in your Arabic Language Classes

7) Current skills
   - Do you ever read in Arabic?
     o If yes, what kind of things do you like to read? What topics interest you? Why?
     o If no, why not?
   - Do you ever need to write anything in Arabic?
     o If yes, what kinds of things do you write about?
     o If no, why not?
   - Do you watch Arabic TV or listen to Arabic music?
     o If yes, what do you watch/listen to?
     o If no, why not?
   - What topics do you want to be able to speak about in Arabic?
   - What do you consider to be your strongest Arabic language ability, the one in which you have improved the most?
   - What do you consider to be your weakest Arabic language ability, the one you feel needs more work?

8) Current learning situation
   - How would you describe the basic format of your current Arabic class?
   - What activities do you spend a great deal of time on?
   - What do you use most in class: MSA or colloquial Arabic?
   - Which variety of Arabic do you feel is most relevant to your needs? Explain.
   - What are your favorite class activities? Why?
   - What are your least favorite class activities? Why?
   - What frustrates you in language learning?
   - When do you feel motivated to learn, and when do you feel demotivated?
   - When do you find yourself paying more attention in class?
   - When do you feel easily distracted in class?

9) Personal satisfaction
   - Are you satisfied with your Arabic classes so far? Why?
   - Can you understand speakers of Arabic? Arabic programs on TV?
   - Was there ever a situation in which you felt your knowledge of Arabic failed you in carrying out a certain task?
   - What is the most important skill to you: speaking, listening, reading, or writing? Do you feel that your program focuses on that skill as much as you would like it to?
• Overall, do you feel that your Arabic class meets your language needs? Why?
• What sort of advice would you give to a future learner of Arabic to help them get the most benefit from an Arabic program?

10) Changes
• Based on the past, current, or anticipated future uses you have for the language, are there any changes you would like to see in your Arabic classes?
• What in your opinion would be activities most useful for you?
• What in your opinion would be activities least useful for you?
• What else would you like to see included that would be relevant to your needs?

Section D: Future uses of Arabic

11) How do you think you will use Arabic in the future? (Academically or professionally?)
• What types of employment do you expect with your knowledge of Arabic?

12) How would you like your Arabic class to help you? Specifically, what real-life tasks do you wish to be able to perform by the end of your study of Arabic?

13) I will read to you a list of tasks. Let me know which of them you would like to be able to do in Arabic. Rate the personal importance of each task on a scale from 0-5, with 5 = great importance, 3 = average importance, 1 = minor importance, 0 = no importance to you.

<table>
<thead>
<tr>
<th>Task</th>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholarly reading in the field of Arabic religion and history</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Reading Arabic menus, notes and signs</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Writing e-mails and letters in Arabic</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Listening to song lyrics and radio or TV broadcasts</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Socializing with speakers of Arabic</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Calling and answering the phone</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Booking a hotel</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Selling, buying, and bargaining</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Making appointments</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Consulting medical personnel</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Interpreting and translating</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Making and confirming travel reservations</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Giving a description of a person</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>Buying a ticket at a theatre/cinema</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>
☐ Order food at a restaurant  5 4 3 2 1 0
☐ Check into a hotel  5 4 3 2 1 0
☐ Expressing an opinion  5 4 3 2 1 0
☐ Narrating a story or a personal experience  5 4 3 2 1 0
☐ Persuading/arguing orally (e.g., on talk shows and newscasts)  5 4 3 2 1 0
☐ Speaking in public (e.g., present a paper in a conference, give a speech)  5 4 3 2 1 0
☐ Clearing up misunderstandings  5 4 3 2 1 0
☐ Linguistically-focused uses, such as comparing Arabic and English structure and recognizing differences between speech patterns of men and women  5 4 3 2 1 0

14) Is there anything important that I missed and you would like to add?

THANK YOU VERY MUCH INDEED FOR YOUR COOPERATION!
Appendix E. Needs Analysis Questionnaire

Language needs for learners of Arabic

This questionnaire is part of a research project into the current and future needs of students taking Arabic language classes. The survey is being conducted by a graduate student as part of the requirements for a doctoral degree. The goal is to identify your reasons for studying Arabic. What uses do you have for Arabic now (e.g., to have conversations with Arabic-speaking students on campus)? What uses do you anticipate having for Arabic in the future (e.g., to work as a journalist in an Arabic-speaking country)? The information you provide is very important to us as we develop teaching materials that best meet the needs of Arabic language learners like yourself. The questionnaire will take about 20 minutes to complete. Information you provide on this questionnaire will be used only for the purpose mentioned above and will remain completely confidential. If you have any questions or comments regarding this questionnaire or the study, please feel free to contact Maymona Al Khalil (mka26@georgetown.edu). Thank you very much for your participation.
Section A: Background Information

1. Name ___________________________ Code ________________
2. Gender: [ ] Female [ ] Male
3. Nationality ___________________________ Net ID: ________@georgetown.edu
4. Parents’ nationality: Mother__________________________ Father__________________________
5. Parents’ level of education: Mother__________________________ Father__________________________
6. Parents’ profession: Mother__________________________ Father__________________________
7. Parents’ first language: Mother__________________________ Father__________________________
8. Academic status: [ ] Freshman [ ] Sophomore [ ] Junior [ ] senior [ ] Grad
9. If an undergraduate student, what are your areas of interest (or if undeclared, your anticipated areas of interest)?
   Major ___________________________ Minor ___________________________
10. If a graduate student, what degree and program are you enrolled in?
    Degree __________________________ Program ___________________________
11. Do you speak a language other than English at home? [ ] Yes [ ] No
    i. If yes, what language(s) do you speak? ___________________________
    ii. Are you literate in your home language(s)? [ ] Yes [ ] No
12. How many years have you been studying Arabic? ___________________________
13. What Arabic classes are you currently taking (level)? ___________________________
14. What Arabic classes have you taken before this one? ___________________________
15. How would you evaluate your proficiency in Arabic?
   Listening [ ] very poor [ ] poor [ ] neutral [ ] good [ ] very good
   Speaking [ ] very poor [ ] poor [ ] neutral [ ] good [ ] very good
   Reading [ ] very poor [ ] poor [ ] neutral [ ] good [ ] very good
   Writing [ ] very poor [ ] poor [ ] neutral [ ] good [ ] very good
16. How would you describe your experience of Arabic language learning so far?
    [ ] very difficult [ ] difficult [ ] reasonable [ ] easy [ ] very easy

Section B: Reasons for studying Arabic

17. Which of the following are reasons why you are studying Arabic, and how important is each of them for you?  
   5 = Great importance, 3 = Average importance, 1 = Minor importance, 0 = No importance to you
   PLEASE respond to EVERY item, INCLUDING those that are of no importance to you.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Communicate better with Arabic-speakers.</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>b) Satisfy a university language requirement.</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>c) Satisfy your personal interest in some aspect(s) of Arabic culture</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>
d) Understand your own ethnic heritage

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

e) Use in connection with religious activities of some kind

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

f) Use in present or future academic work (specify ..................)

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

g) Use in present or future business or employment (specify ............)

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

h) Use when visiting an Arabic-speaking country for tourism/vacation

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

i) Satisfy your intellectual curiosity about Arabic

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

j) Satisfy your wish to try something new

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

k) Other (specify ........................................................................)

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

Section C: Using Arabic

18. With whom is it important to you to speak Arabic, and how important is each to you?

5 = Great importance, 3 = Average importance, 1 = Minor importance, 0 = No importance to you

PLEASE respond to EVERY item, INCLUDING those that are of no importance to you.

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

a) Relatives

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

b) Roommates

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

c) Friends

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
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</tbody>
</table>

d) Classmates

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

e) Professors/instructors

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

f) Research participants

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

g) Professional acquaintances (e.g., colleagues, clients, or counterparts)

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

h) Arabs in the US (e.g., Arab students, neighbors, waiters, bus/taxi drivers)

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

i) Native speakers in Arabic-speaking countries

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

j) Other (specify: .................................................................)

<table>
<thead>
<tr>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

Section D: Experiencing Arabic-speaking countries

19. Have you ever visited an Arabic-speaking country?  □ Yes  □ No

If yes, which one(s)? ........................................................................................................

How many times? .............................................., and on average, for how long? .........................

20. If your answer to question 19 was ‘No’, skip to question 21. If your answer to the question was ‘Yes’:

i. How were you able to communicate with Arabic speakers during your trip(s)?

□ I was not able to communicate at all  □ I used Arabic to communicate

□ I mostly relied on gestures.  □ I used English or French to communicate

□ I used a combination of the above (specify  ........................................................................)

□ I did not try to communicate in Arabic
ii. Would you say your spoken Arabic improved as a result of your trip?

☐ Yes, mostly because of Arabic classes  ☐ Yes, mostly because of being with native speakers
☐ No, because I was not there long enough  ☐ Other (specify ..........................)

iii. Which of the following aspects did you find most interesting in the Arabic-speaking countries you have visited, and how interesting was each to you?

5= Great interest, 3= Average interest, 1= Minor interest, 0= No interest.

PLEASE respond to EVERY item, INCLUDING those that are of no interest to you.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Great interest</th>
<th>No interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Culture (e.g., food, music, hospitality)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>b) History</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>c) Politics</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>d) Social dynamics (e.g., relations among men, women, and children)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>e) Tourism</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>f) Similarities to the US (e.g., WiFi, Western stores, Western apparel)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>g) Interacting with Arabic speakers</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>h) Other (specify: ........................................)</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

21. Do you think you will visit an Arabic-speaking country soon (or again)? ☐ Yes ☐ No

22. If your answer to questions 21 was ‘No’, skip to question 23. If your answer to the question was ‘Yes’:

Why will you visit? Check all that apply:

☐ Born there  ☐ To visit (☐ friends, ☐ relatives)
☐ For religious purposes  ☐ Tourism/vacation
☐ Military service  ☐ As an escort for other visitors
☐ Sports events  ☐ To study there (☐ Arabic, ☐ Other ............................)
☐ For business/work (specify ............... )  ☐ For academic research (specify ................)
☐ To attend a conference (specify ............ )  ☐ Other reasons (specify ......................)

Section E: Arabic Skills

23. Which skills take up most of class time: Reading, Writing, Grammar, Listening, or Speaking?

Most time (1) ................................ (2) ............................ (3) ....................... (4) ..................... (5) ................. Least time ➔

24. Do you ever read in Arabic outside of class?

☐ Yes (e.g., ..........................................................) ☐ No, I only read Arabic for class

25. Do you ever write in Arabic outside of class?

☐ Yes (e.g., ..........................................................) ☐ No, I only write in Arabic for class

26. Do you watch Arabic TV, (online) news broadcasts, movies, or documentaries?

☐ Yes, and I can understand  ☐ very little  ☐ some of the words  ☐ most of the words  ☐ No

If you answered ‘Yes’, are there English subtitles? ☐ Yes ☐ No ☐ Other (..........................)
27. Do you listen to Arabic music?
☐ Yes, and I can understand ☐ very little ☐ some of the words ☐ most of the words
☐ No

28. How would you rank the strength of your Arabic skills: Reading, Writing, Grammar, Listening, and Speaking?

Weakest →

29. When do you feel motivated to learn Arabic?

**Rank the following conditions so that 1 = most motivating, 2 = next most motivating, and so on.**

☐ When I am working in a group ☐ When I produce Arabic (i.e., speak or write in Arabic)
☐ When I understand the lesson ☐ When the teacher encourages me
☐ When I feel that I am progressing ☐ When I am working on personally relevant activities
☐ When the activities are interesting ☐ Other (specify ..........................................................)

30. When do you feel your enthusiasm for learning Arabic waning?

**Rank the following conditions so that 1 = least motivating, 2 = next least motivating, and so on.**

☐ When we work on grammar drills ☐ When I feel like I am not making progress
☐ When I cannot follow what goes on in class ☐ When I cannot say what I want to say in Arabic
☐ When tests are long or difficult ☐ When my classmates are at a higher level than I am
☐ When the instructor lectures for a long time ☐ When my classmates are at a lower level than I am
☐ When the instructor does not engage me ☐ When I am constantly corrected by the instructor
☐ Other (specify ..........................................................)

31. When do you find yourself paying attention in class?

**Rank the following conditions so that 1 = paid most attention, 2 = paid less attention, and so on.**

☐ When the instructor calls on me/engages me ☐ When the instructor liven the class (e.g., adds humor)
☐ When the instructor cares about my progress ☐ When an activity is difficult
☐ When we read interesting or funny stories ☐ When we discuss the news
☐ When the instructor uses authentic materials outside the book/curriculum in class (e.g., Arabic videos)
☐ At the beginning of class ☐ Other (specify ..........................................................)

32. When do you find yourself distracted in class?

**Rank the following conditions so that 1 = most distracting, 2 = next most distracting, and so on.**

☐ When I know the instructor will not call on me ☐ When there is too much talking going on in class
☐ When I don’t understand what is going on ☐ When something is not interesting to me
☐ When something is not important to me ☐ When other students ask questions beyond my level
☐ At the end of class ☐ Other (specify ..........................................................)

33. Can you understand speakers of Arabic?

☐ I can understand my instructor ☐ I can understand nonnative speakers (e.g., classmates)
☐ I can understand native speakers ☐ I cannot understand speakers of Arabic

34. Do you feel that your Arabic class meets your language needs? Why?

☐ Yes, (because ......................................................................................)
☐ No, (because ..........................................................)
Section F: Personal preferences

35. What topics do you like to speak about in Arabic? You may check more than one.
   [ ] Religion                  [ ] Politics (e.g., current events, governing, law, history, abstract issues)
   [ ] Military topics          [ ] Everyday topics (e.g., family, talking about oneself, weather, health)
   [ ] Gossip                   [ ] Culture (e.g., movies, music, traditions)
   [ ] Travel (e.g., hotels, passports) [ ] Other (specify ..........................................................)

36. Rank the following skills from most important to least important TO YOU PERSONALLY.
   Reading, Writing, Grammar, Listening, and Speaking.

   Most Important (1)        (2)        (3)        (4)        (5)        Least important →

37. Most Arabic language classes primarily teach Modern Standard Arabic (MSA). How do you feel about that?
   [ ] I like that I am focusing on MSA (because ..................................................)
   [ ] I would rather focus on a particular dialect (because ..................................................)
   [ ] I would like my Arabic class to focus on both MSA and regional dialects (because ..................................)

38. Which variety of Arabic is most relevant to your personal language needs?
   [ ] Modern Standard Arabic (MSA, because .............................................................)
   [ ] Regional dialect (specify ............................................................., because .............................................................)
   [ ] I don’t know yet (because .................................................................................)

39. Rank the following class activities from most to least favorite: Reading texts (news, articles, and stories), Writing activities, Grammar drills, Listening activities, and Speaking activities.

   Favorite (1)        (2)        (3)        (4)        (5)        Least Favorite →

40. Which of the following tasks WOULD YOU LIKE TO BE ABLE TO DO in Arabic?

Rate the PERSONAL IMPORTANCE of each task on a scale from 0-5.

5 = great importance, 3 = average importance, 1 = minor importance, 0 = no importance to you.

<table>
<thead>
<tr>
<th>Class Activities</th>
<th>Great importance</th>
<th>No importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Reading stories, news, or books in Arabic</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>b) Reading Arabic menus, notes and signs</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>c) Writing e-mails or letters in Arabic</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>d) Listening to song lyrics and radio or TV broadcasts</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>e) Socializing with speakers of Arabic</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>f) Calling and answering the phone</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>g) Booking a hotel</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>h) Selling, buying, and bargaining</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>i) Making appointments</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
<tr>
<td>j) Consulting medical personnel</td>
<td>5 4 3 2 1 0</td>
<td></td>
</tr>
</tbody>
</table>
k) Interpreting and translating  
5  4  3  2  1  0

l) Making and confirming travel reservations  
5  4  3  2  1  0

m) Giving a description of a person  
5  4  3  2  1  0

n) Buying a ticket at a theatre/cinema  
5  4  3  2  1  0

o) Order food at a restaurant  
5  4  3  2  1  0

p) Check into a hotel  
5  4  3  2  1  0

q) Expressing an opinion  
5  4  3  2  1  0

r) Narrating a story or a personal experience  
5  4  3  2  1  0

s) Persuading/ arguing orally (e.g., on talk shows and newscasts)  
5  4  3  2  1  0

t) Speaking in public (e.g., present a paper in a conference, give a speech)  
5  4  3  2  1  0

u) Clearing up misunderstandings  
5  4  3  2  1  0

v) Linguistically-focused uses (e.g., comparing Arabic and English structures)  
5  4  3  2  1  0

Section G: Changes you would like to see in your Arabic Language Classes

41. Based on the past, current, or anticipated future uses you have for the Arabic, what are the MAIN changes you would like to see in your Arabic language classes? ...........................................................
............................................................................................................................
............................................................................................................................

Specifically, how do you feel about the current state of each of the following aspects in your Arabic classes?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Just right</th>
<th>Not enough</th>
<th>Too much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Grammar</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Speaking</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vocabulary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homework</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class Structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class size</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Textbook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media (e.g., newspaper articles)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language lab (or multimedia)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native speaker visitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion of abstract concepts</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Appendix F. Sources and Scales of Motivation Questionnaire Items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Scale</th>
<th>Item</th>
<th># in Ques.</th>
<th>Source¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrative Orientation</strong></td>
<td></td>
<td>1. Studying Arabic is important because it will allow me to make good friends among speakers of Arabic.</td>
<td>19</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Studying Arabic is important because it will allow me to meet and converse with more and varied people.</td>
<td>31</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Studying Arabic is important because it will enable me to better appreciate Arab life and culture.</td>
<td>44</td>
<td>G/TMP/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Studying Arabic is important because I will be able to participate in the activities of another cultural group.</td>
<td>57</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. In some ways, I would like to become more similar to native speakers of Arabic.</td>
<td>70</td>
<td>R/TMP/C&amp;K</td>
</tr>
<tr>
<td><strong>Interest in Foreign Languages</strong></td>
<td></td>
<td>1. If I were visiting a foreign country, I would like to be able to speak its language.</td>
<td>20</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Even though English has become the lingua franca, it is important to learn foreign languages.</td>
<td>32</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I wish I could speak another language perfectly.</td>
<td>45</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. I want to read the literature of a foreign language in the original language rather than a translation.</td>
<td>58</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. I often wish I could read newspapers and magazines in another language.</td>
<td>71</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. I would really like to learn many foreign languages.</td>
<td>81</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. If I plan to stay in another country, I would study the local language even though I could get by with English.</td>
<td>89</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. If a foreign language is offered in school or at work, I would study it even if it were not required.</td>
<td>96</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. I enjoy meeting and listening to people who speak other languages.</td>
<td>102</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. Studying a foreign language is an enjoyable experience.</td>
<td>108</td>
<td>G</td>
</tr>
<tr>
<td><strong>Integrativeness</strong></td>
<td></td>
<td>1. Do you like the music of Arabic-speaking countries?</td>
<td>1</td>
<td>R/TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do you like Arabic films/movies?</td>
<td>5</td>
<td>R/TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Do you like Arabic magazines, newspapers, or stories?</td>
<td>9</td>
<td>R/TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Do you like Arabic TV programs (e.g. news broadcasts)?</td>
<td>13</td>
<td>R/TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Do you like Arabic food/cuisine?</td>
<td>16</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td><strong>Attitudes towards L2 Community</strong></td>
<td></td>
<td>1. Do you like to travel to Arabic-speaking countries?</td>
<td>2</td>
<td>TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do you have favorable attitudes towards native speakers of Arabic?</td>
<td>6</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Do you like meeting people from Arabic-speaking countries?</td>
<td>10</td>
<td>R/TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Would you like to know more about people from Arabic-speaking countries?</td>
<td>14</td>
<td>G/G+/TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Do you think Arabic-speaking countries play an important role in the world?</td>
<td>17</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Do you think Arabic-speaking countries are culturally rich?</td>
<td>18</td>
<td>R/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. The more I get to know speakers of Arabic, the more I want to be fluent in their language.</td>
<td>21</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Speakers of Arabic are friendly and hospitable.</td>
<td>33</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. Speakers of Arabic are cheerful, agreeable and good humored.</td>
<td>46</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. The more I learn about speakers of Arabic, the more I like them.</td>
<td>59</td>
<td>G</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construct</th>
<th>Scale</th>
<th>Item</th>
<th># in Ques.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivational intensity</td>
<td>Intended Learning Effort</td>
<td>1. If an Arabic course is offered in the future, I would like to take it.</td>
<td>22</td>
<td>TMP/C&amp;K/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. I make a point of trying to understand all the Arabic I see and hear.</td>
<td>34</td>
<td>G+/C&amp;K/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I can honestly say that I'm really doing my best to learn Arabic.</td>
<td>47</td>
<td>C&amp;K/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. I am prepared to expend a lot of effort to learn Arabic.</td>
<td>60</td>
<td>TMP/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. I make time to create supplemental study materials (e.g., vocabulary flash cards, word charts, etc.)</td>
<td>72</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. I keep up with Arabic by working on it almost every day.</td>
<td>82</td>
<td>G+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. When I have a problem understanding something in Arabic class, I always ask the instructor for help.</td>
<td>90</td>
<td>G/S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. When it comes to Arabic homework, I work very carefully, making sure I understand everything.</td>
<td>97</td>
<td>G/S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. After I get my Arabic assignments back, I always rewrite them correcting my mistakes.</td>
<td>103</td>
<td>G/S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. When I am in Arabic class, I volunteer answers as much as possible.</td>
<td>109</td>
<td>G/S</td>
</tr>
<tr>
<td>Desire to Learn the L2</td>
<td></td>
<td>1. During Arabic class, I would like to have only Arabic spoken.</td>
<td>23</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. If I had the opportunity to speak Arabic outside of the classroom, I would do it as much as I can.</td>
<td>35</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Compared to my other courses, I like Arabic the most.</td>
<td>48</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. If there were an Arabic club in my program, I would be most interested in joining.</td>
<td>61</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. I have a very strong desire to learn Arabic.</td>
<td>73</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. I wish I had begun studying Arabic at an early age.</td>
<td>83</td>
<td>G+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. If it were up to me, I would spend all of my time learning Arabic.</td>
<td>91</td>
<td>G+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. I want to learn Arabic well enough that speaking it will become second nature to me.</td>
<td>98</td>
<td>G+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. If I had the opportunity to see an Arabic play, I would definitely go.</td>
<td>104</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. I wish I were fluent in Arabic.</td>
<td>110</td>
<td>G+</td>
</tr>
<tr>
<td>Attitudes towards learning the L2</td>
<td></td>
<td>1. Learning Arabic is really great.</td>
<td>24</td>
<td>G/C&amp;K/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. I really enjoy learning Arabic.</td>
<td>36</td>
<td>G/C&amp;K/TMP/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I always look forward to my Arabic class.</td>
<td>49</td>
<td>C&amp;K/TMP/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. I find learning Arabic really interesting.</td>
<td>62</td>
<td>C&amp;K/TMP/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Learning Arabic is one of the most important aspects of my personal development.</td>
<td>74</td>
<td>C&amp;K/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. I like the atmosphere of my Arabic class.</td>
<td>84</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. I plan to learn as much Arabic as possible.</td>
<td>92</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. How much do you like Arabic?</td>
<td>3</td>
<td>C&amp;K/TMP/R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. Would you like to have more Arabic lessons?</td>
<td>7</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. Do you think time passes quickly while you are studying Arabic?</td>
<td>11</td>
<td>TMP</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Construct</th>
<th>Scale</th>
<th>Item</th>
<th># in Ques.</th>
<th>Source</th>
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<tbody>
<tr>
<td></td>
<td><strong>Instrumentality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Promotion</strong></td>
<td>1. Do you think Arabic is important in the world these days?</td>
<td>4</td>
<td>R/C/K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do you think knowing Arabic would help you if you traveled abroad in the future?</td>
<td>8</td>
<td>R/C/K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Do you think knowing Arabic would help you become a more knowledgeable person?</td>
<td>12</td>
<td>R/C/K/G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Do you think Arabic would help your future career?</td>
<td>15</td>
<td>R/C/K/G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Achieving high proficiency in Arabic will enable me to make a lot of money.</td>
<td>25</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Studying Arabic is important because it will give me an edge in competing with others.</td>
<td>37</td>
<td>G+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Studying Arabic is important because I think I will need it for further graduate study.</td>
<td>50</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Arabic is important because I would like to spend a longer time in the Middle East (studying or working).</td>
<td>63</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. Studying Arabic is important to me because it offers a new challenge in my life.</td>
<td>75</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. Studying Arabic helps me stay updated and informed about the current news of the Arab/Muslim world.</td>
<td>85</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td><strong>Prevention</strong></td>
<td>1. I have to learn Arabic because without passing the Arabic course I cannot graduate.</td>
<td>38</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. I have to learn Arabic because I don’t want to fail the Arabic course.</td>
<td>51</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I have to study Arabic because I don’t want to get bad marks in it.</td>
<td>64</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. I have to study Arabic; otherwise, I think I cannot be successful in my future career.</td>
<td>76</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Studying Arabic is necessary because I don’t want to get a poor score on the Arabic proficiency test.</td>
<td>86</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Studying Arabic is important, because without knowledge of Arabic, I will be considered a weak student.</td>
<td>93</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Studying Arabic is important to me because I would feel ashamed if I got bad grades in Arabic.</td>
<td>99</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Studying Arabic is important to me because I don’t like to be considered a poorly cultured person.</td>
<td>105</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. I have to learn Arabic because I don’t want to be the one who missed out on the trend to study Arabic.</td>
<td>111</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. I have to study Arabic because, without it, I may not receive promotions in the future.</td>
<td>114</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td></td>
<td><strong>Arabic class anxiety</strong></td>
<td>It embarrasses me to volunteer answers in our Arabic class.</td>
<td>26</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. I never feel quite sure of myself when I am speaking in our Arabic class.</td>
<td>39</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I always feel that the other students speak Arabic better than I do.</td>
<td>52</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. I get nervous and confused when I am speaking in my Arabic class.</td>
<td>65</td>
<td>R/G/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. I am sometimes afraid the other students will laugh at me when I speak Arabic.</td>
<td>77</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td><strong>Arabic use anxiety</strong></td>
<td>1. I would feel nervous speaking Arabic with a native speaker.</td>
<td>27</td>
<td>R/G/C&amp;K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. It would bother me if I had to speak Arabic on the phone.</td>
<td>40</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I would feel uncomfortable speaking Arabic under any circumstances.</td>
<td>53</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. I feel anxious if someone asks me something in Arabic.</td>
<td>66</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. I am worried that native speakers of Arabic would find my Arabic strange.</td>
<td>78</td>
<td>R/C&amp;K</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>#</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal L2 Self</td>
<td>1. I can imagine myself living in the Middle East and having a discussion in Arabic with friends.</td>
<td>28</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>2. If my dreams come true, I will use Arabic effectively in the future.</td>
<td>41</td>
<td>R/C&amp;K</td>
</tr>
<tr>
<td></td>
<td>3. I can imagine a situation where I am speaking Arabic with Arabs from different countries.</td>
<td>54</td>
<td>TMP/C&amp;K</td>
</tr>
<tr>
<td></td>
<td>4. Whenever I think of my future career, I imagine myself using Arabic.</td>
<td>67</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>5. I can imagine myself studying/working in a situation where much of the reading material is in Arabic.</td>
<td>79</td>
<td>TMP/R</td>
</tr>
<tr>
<td></td>
<td>6. I can imagine myself writing Arabic e-mails easily.</td>
<td>87</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>7. I can imagine myself speaking Arabic with the comfort of a native speaker.</td>
<td>94</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>8. I often imagine myself as someone who is able to speak Arabic.</td>
<td>100</td>
<td>TMP/R/C&amp;K</td>
</tr>
<tr>
<td></td>
<td>9. I can imagine myself listening to Arabic TV or radio and following it easily.</td>
<td>106</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td></td>
<td>10. The things I want to do in the future require me to speak Arabic well.</td>
<td>112</td>
<td>R/C&amp;K</td>
</tr>
<tr>
<td>Ought-to L2 Self</td>
<td>1. I study Arabic because the people around me tend to think that it is a good thing.</td>
<td>29</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>2. I have to study Arabic because if I don’t, the people who are important to me will be disappointed with me.</td>
<td>42</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>3. Learning Arabic is necessary because people around me expect me to do so.</td>
<td>55</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>4. People around me believe that I must study Arabic to be an educated/cultured person.</td>
<td>68</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>5. I consider learning Arabic important because the people I respect think that I should do it.</td>
<td>80</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>6. Studying Arabic is important to me in order to gain the approval of my peers/teachers/family/boss.</td>
<td>88</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>7. Not learning Arabic will have a negative impact on my life.</td>
<td>95</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>8. A cultured person is supposed to be able to speak a language such as Arabic.</td>
<td>101</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>9. Studying Arabic is important because other people will respect me if I have knowledge of Arabic.</td>
<td>107</td>
<td>TMP</td>
</tr>
<tr>
<td></td>
<td>10. If I fail to learn Arabic, I’ll be letting other people down.</td>
<td>113</td>
<td>TMP/C&amp;K</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>1. I am sure I will be able to learn Arabic well.</td>
<td>30</td>
<td>R/C&amp;K</td>
</tr>
<tr>
<td></td>
<td>2. I worry that the other students will laugh at me when I speak Arabic.</td>
<td>43</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>3. Learning Arabic is a difficult task for me.</td>
<td>56</td>
<td>R/C&amp;K</td>
</tr>
<tr>
<td></td>
<td>4. I think I am the type who would feel anxious and ill at ease if I had to speak to someone in Arabic.</td>
<td>69</td>
<td>R/C&amp;K</td>
</tr>
<tr>
<td>Willingness to</td>
<td>1. Making a presentation in front of a large group in English/Arabic.</td>
<td>115/122</td>
<td>R</td>
</tr>
<tr>
<td>communicate</td>
<td>2. Talking with an acquaintance while standing in line in English/Arabic.</td>
<td>116/123</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>3. Talking with a salesperson in a store in English/Arabic.</td>
<td>117/124</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>4. Talking in a small group of strangers in English/Arabic.</td>
<td>118/125</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>5. Talking with a friend while standing in line in English/Arabic.</td>
<td>119/126</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>6. Talking in a small group of acquaintances in English/Arabic.</td>
<td>120/127</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>7. Talking in a small group of friends in English/Arabic.</td>
<td>121/128</td>
<td>R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construct</th>
<th>Scale</th>
<th>Item</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic Teacher</td>
<td>Efficient</td>
<td>Inefficient</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Cheerful</td>
<td>Cheerless</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Competent</td>
<td>Incompetent</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Approachable</td>
<td>Unapproachable</td>
<td>G</td>
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<tr>
<td></td>
<td>Pleasant</td>
<td>Unpleasant</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Capable</td>
<td>Incapable</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Friendly</td>
<td>Unfriendly</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Exciting</td>
<td>Dull</td>
<td>G</td>
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<tr>
<td></td>
<td>Organized</td>
<td>Disorganized</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Creative</td>
<td>Uncreative</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td></td>
<td>Patient</td>
<td>Impatient</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Polite</td>
<td>Impolite</td>
<td>G</td>
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<tr>
<td></td>
<td>Interesting</td>
<td>Boring</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Dependable</td>
<td>Undependable</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Considerate</td>
<td>Inconsiderate</td>
<td>G</td>
</tr>
<tr>
<td>Arabic Course</td>
<td>Meaningful</td>
<td>Meaningless</td>
<td>G</td>
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<tr>
<td></td>
<td>Enjoyable</td>
<td>Unenjoyable</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Absorbing</td>
<td>Monotonous</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Effortless</td>
<td>Hard</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Interesting</td>
<td>Boring</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Necessary</td>
<td>Unnecessary</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Appealing</td>
<td>Unappealing</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Pleasurable</td>
<td>Painful</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Rewarding</td>
<td>Unrewarding</td>
<td>G</td>
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<tr>
<td></td>
<td>Satisfying</td>
<td>Unsatisfying</td>
<td>G</td>
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<tr>
<td></td>
<td>Important</td>
<td>Unimportant</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Exciting</td>
<td>Dull</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Clear</td>
<td>Confusing</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>Structured</td>
<td>Unstructured</td>
<td>AL KHALIL</td>
</tr>
<tr>
<td></td>
<td>Nice</td>
<td>Awful</td>
<td>G</td>
</tr>
</tbody>
</table>

\(^5\) G = Gardner (1985)
Appendix G. Motivation Questionnaire

Thank you for providing answers to the following questions about Arabic language learning. This is not a test, so there are no ‘right’ or ‘wrong’ answers, and the questionnaire is completely anonymous. Please be frank in your answers, since this will impact the research outcomes. Thank you very much for your time and help.

Part 1

In the following section I would like you to answer some questions by simply giving marks from 1- 6.

1 = Not at all, 2 = Not so much, 3 = So-so, 4 = A little, 5 = Quite a lot, and 6 = Very much.

Please circle one (and only one) whole number in each box and don’t leave out any of the questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Very much</th>
<th>Quite a lot</th>
<th>A little</th>
<th>So-so</th>
<th>Not so much</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you like the music of Arabic-speaking countries?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Do you like to travel to Arabic-speaking countries?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. How much do you like Arabic?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Do you think Arabic is important in the world these days?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Do you like Arabic films/movies?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Do you have favorable attitudes towards native speakers of Arabic?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Would you like to have more Arabic classes?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. Do you think knowing Arabic would help you if you traveled abroad in the future?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. Do you like Arabic magazines, newspapers, or stories?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. Do you like meeting people from Arabic-speaking countries?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. Do you think time passes quickly while you are studying Arabic?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. Do you think knowing Arabic would help you become a more knowledgeable person?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. Do you like Arabic TV programs (e.g. news broadcasts)?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>14. Would you like to know more about people from Arabic-speaking countries?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15. Do you think knowing Arabic would help your future career?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16. Do you like Arabic food/cuisine?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17. Do you think Arabic-speaking countries play an important role in the world?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>18. Do you think Arabic-speaking countries are culturally rich?</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Part II

Now below are statements that some people agree with and some people disagree with, and to different degrees. We would like to know how you feel about these statements. After each statement you will find six boxes. Please put an ‘X’ in the box which best expresses how true that statement is in your case.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Absolutely True</th>
<th>Mostly True</th>
<th>Slightly True</th>
<th>Partly Untrue</th>
<th>Slightly False</th>
<th>Absolutely False</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Studying Arabic is important because it will allow me to make good</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>friends among speakers of Arabic.</td>
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<tr>
<td>20. If I were visiting a foreign country, I would like to be able to</td>
<td></td>
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<tr>
<td>speak its language.</td>
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<tr>
<td>21. The more I get to know speakers of Arabic, the more I want to be</td>
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<tr>
<td>fluent in their language.</td>
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<tr>
<td>22. If an Arabic course is offered in the future, I would like to take</td>
<td></td>
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<tr>
<td>it.</td>
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<tr>
<td>23. During Arabic class, I would like to have only Arabic spoken.</td>
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<tr>
<td>24. Learning Arabic is really great.</td>
<td></td>
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<tr>
<td>25. Achieving high proficiency in Arabic will enable me to make a lot of</td>
<td></td>
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<tr>
<td>money.</td>
<td></td>
<td></td>
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<tr>
<td>26. It embarrasses me to volunteer answers in our Arabic class.</td>
<td></td>
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<tr>
<td>27. I would feel nervous speaking Arabic with a native speaker.</td>
<td></td>
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<tr>
<td>28. I can imagine myself living in the Middle East and having a</td>
<td></td>
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<tr>
<td>discussion in Arabic with friends.</td>
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<tr>
<td>29. I study Arabic because the people around me tend to think that it is</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>a good thing.</td>
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<tr>
<td>30. I am sure I will be able to learn Arabic well.</td>
<td></td>
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<tr>
<td>31. Studying Arabic is Important because it will allow me to meet and</td>
<td></td>
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</tr>
<tr>
<td>converse with more &amp; varied people.</td>
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</tr>
<tr>
<td>32. Even though English has become the lingua franca, it is important to</td>
<td></td>
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<tr>
<td>learn foreign languages.</td>
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<tr>
<td>33. Speakers of Arabic are friendly and hospitable.</td>
<td></td>
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</tr>
<tr>
<td>34. I make a point of trying to understand all the Arabic I see and hear.</td>
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<tr>
<td>35. If I had the opportunity to speak Arabic outside of the classroom, I</td>
<td></td>
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<tr>
<td>would do it as much as I can.</td>
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<tr>
<td>36. I really enjoy learning Arabic.</td>
<td></td>
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<tr>
<td>37. Studying Arabic is important because it will give me an edge in</td>
<td></td>
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<tr>
<td>competing with others.</td>
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<tr>
<td>38. I have to learn Arabic because without passing the Arabic course I</td>
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<tr>
<td>cannot graduate.</td>
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<tr>
<td>39. I never feel quite sure of myself when I am speaking in our Arabic</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>class.</td>
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<tr>
<td>40. It would bother me if I had to speak Arabic on the phone.</td>
<td></td>
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</tr>
<tr>
<td>41. If my dreams come true, I will use Arabic effectively in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. I have to study Arabic because if I don’t, the people who are</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>important to me will be disappointed with me.</td>
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<td>43. I worry that the other students will laugh at me when I speak Arabic.</td>
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<tr>
<td>44. Studying Arabic is important because it will enable me to better</td>
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<td>appreciate Arab life and culture.</td>
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<tr>
<td>Statement</td>
<td>Absolutely True</td>
<td>Mostly True</td>
<td>Slightly True</td>
<td>Partly True</td>
<td>Not Really True</td>
<td>Not True at All</td>
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<tr>
<td>45. I wish I could speak another language perfectly.</td>
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<tr>
<td>46. Speakers of Arabic are good humored.</td>
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<tr>
<td>47. I can honestly say that I’m really doing my best to learn Arabic.</td>
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<td>48. Compared to my other courses, I like Arabic the most.</td>
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<td>49. I always look forward to my Arabic class.</td>
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<tr>
<td>50. Studying Arabic is important because I think I will need it for further graduate study.</td>
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<td>51. I have to learn Arabic because I don’t want to fail the Arabic course.</td>
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<td>52. I always feel that the other students speak Arabic better than I do.</td>
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<td>53. I would feel uncomfortable speaking Arabic under any circumstances.</td>
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<td>54. I can imagine a situation where I am speaking Arabic with Arabs from different countries.</td>
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<td>55. Learning Arabic is necessary because people around me expect me to do so.</td>
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<td>56. Learning Arabic is a difficult task for me.</td>
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<tr>
<td>57. Studying Arabic is important because I will be able to participate in the activities of another cultural group.</td>
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<td>58. I want to read the literature of a foreign language in the original language rather than a translation.</td>
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<tr>
<td>59. The more I learn about speakers of Arabic, the more I like them.</td>
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<tr>
<td>60. I am prepared to expend a lot of effort to learn Arabic.</td>
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<td>61. If there were an Arabic club in my program, I would be most interested in joining.</td>
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<td>62. I find learning Arabic really interesting.</td>
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<tr>
<td>63. Arabic is important because I would like to spend a longer time in the Middle East (studying or working)</td>
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<td>64. I have to study Arabic because I don’t want to get bad marks in it.</td>
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<td>65. I get nervous and confused when I am speaking in my Arabic class.</td>
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<td>66. I feel anxious if someone asks me something in Arabic.</td>
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<tr>
<td>67. Whenever I think of my future career, I imagine myself using Arabic.</td>
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<td>68. People around me believe that I must study Arabic to be an educated/cultured person.</td>
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<tr>
<td>69. I think I am the type who would feel anxious and ill at ease if I had to speak to someone in Arabic.</td>
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<tr>
<td>70. In some ways, I would like to become more similar to native speakers of Arabic.</td>
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<td>71. I often wish I could read newspapers and magazines in another language.</td>
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<tr>
<td>72. I make time to create supplemental study materials (e.g., vocabulary flash cards, word charts, etc.)</td>
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<td>73. I have a very strong desire to learn Arabic.</td>
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<tr>
<td>Statement</td>
<td>Absolutely true</td>
<td>Mostly true</td>
<td>Slightly true</td>
<td>Slightly false</td>
<td>Not really</td>
<td>Not true at all</td>
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<tr>
<td>74. Learning Arabic is one of the most important aspects of my personal development.</td>
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<td>75. Studying Arabic is important to me because it offers a new challenge in my life.</td>
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<td>76. I have to study Arabic; otherwise, I think I cannot be successful in my future career.</td>
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<td>77. I am sometimes afraid the other students will laugh at me when I speak Arabic.</td>
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<td>78. I am worried that native speakers of Arabic would find my Arabic strange.</td>
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<td>79. I can imagine myself studying/working in a situation where much of the reading material is in Arabic.</td>
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<td>80. I consider learning Arabic important because the people I respect think that I should do it.</td>
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<td>81. I would really like to learn many foreign languages.</td>
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<td>82. I keep up to date with Arabic by working on it almost every day.</td>
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<td>83. I wish I had begun studying Arabic at an early age.</td>
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<td>84. I like the atmosphere of my Arabic class.</td>
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<tr>
<td>85. Studying Arabic helps me stay informed about the current news of the Arab and Muslim world.</td>
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<td>86. Studying Arabic is necessary because I don’t want to get a poor score on the Arabic proficiency test.</td>
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<td>87. I can imagine myself writing Arabic e-mails easily.</td>
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<tr>
<td>88. Studying Arabic is important to me in order to gain the approval of my peers/teachers/family/boss.</td>
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<tr>
<td>89. If I plan to stay in another country, I would study the local language even though I could get by with English.</td>
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<tr>
<td>90. When I have a problem understanding something in Arabic class, I always ask the instructor for help.</td>
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<tr>
<td>91. If it were up to me, I would spend all of my time learning Arabic.</td>
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<tr>
<td>92. I plan to learn as much Arabic as possible.</td>
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<tr>
<td>93. Studying Arabic is important because without knowledge of Arabic I will be considered a weak student.</td>
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<tr>
<td>94. I can imagine myself speaking Arabic with the comfort of a native speaker.</td>
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<tr>
<td>95. Not learning Arabic will have a negative impact on my life.</td>
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<tr>
<td>96. If a foreign language is offered in school or at work, I would study it even if it were not required.</td>
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<tr>
<td>97. When it comes to Arabic homework, I work very carefully, making sure I understand everything.</td>
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<tr>
<td>98. I want to learn Arabic well enough that speaking it will become second nature to me.</td>
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<tr>
<td>99. Studying Arabic is important to me because I would feel ashamed if I got bad grades in Arabic.</td>
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<tr>
<td>100. I often imagine myself as someone who is able to speak Arabic.</td>
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<tr>
<td>101. A cultured person is supposed to be able to speak a language such as Arabic.</td>
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<tr>
<td>102. I enjoy meeting and listening to people who speak other languages.</td>
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</tbody>
</table>
Statement

103. After I get my Arabic assignments back, I always rewrite them correcting my mistakes.

104. If I had the opportunity to see an Arabic play, I would definitely go.

105. Studying Arabic is important to me because I don’t like to be considered a poorly cultured person.

106. I can imagine myself listening to Arabic TV or radio and following it easily.

107. Studying Arabic is important because other people will respect me if I have knowledge of Arabic.

108. Studying a foreign language is an enjoyable experience.

109. When I am in Arabic class, I volunteer answers as much as possible.

110. I wish I were fluent in Arabic.

111. I have to learn Arabic because I don’t want to be the one who missed out on the trend to study Arabic.

112. The things I want to do in the future require me to speak Arabic well.

113. If I fail to learn Arabic, I’ll be letting other people down.

114. I have to study Arabic because, without it, I may not receive promotions in the future.

Part III

How likely would you be to initiate communication in the following situations?

<table>
<thead>
<tr>
<th>Situation</th>
<th>Very likely</th>
<th>Not at all likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>115. Making a presentation in front of a large group in English</td>
<td>6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>116. Talking with an acquaintance while standing in line in English</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>117. Talking with a salesperson in a store in English</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>118. Talking in a small group of strangers in English</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>119. Talking with a friend while standing in line in English</td>
<td>6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>120. Talking in a small group of acquaintances in English</td>
<td>6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>121. Talking in a small group of friends in English</td>
<td>6 5 4 3 2 1</td>
<td></td>
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<tr>
<td>122. Making a presentation in front of a large group in Arabic</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>123. Talking with an acquaintance while standing in line in Arabic</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>124. Talking with a salesperson in a store in Arabic</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>125. Talking in a small group of strangers in Arabic</td>
<td>6 5 4 3 2 1</td>
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<tr>
<td>126. Talking with a friend while standing in line in Arabic</td>
<td>6 5 4 3 2 1</td>
<td></td>
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<tr>
<td>127. Talking in a small group of acquaintances in Arabic</td>
<td>6 5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>128. Talking in a small group of friends in Arabic</td>
<td>6 5 4 3 2 1</td>
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</tbody>
</table>
Part IV

The purpose of this part of the questionnaire is to better understand your ideas and impressions about your Arabic course and Arabic teacher. Below is a list of adjectives that may be used to describe each. Put an ‘X’ at the point which best matches your assessment. In answering this part, work quickly and don’t stop to think about each item. It is your immediate impression (your “knee-jerk” reaction) which interests us. Again, your responses will only be used for the purposes of this research. They will never be shared with your teacher or program, and will remain completely confidential.

<table>
<thead>
<tr>
<th>My Arabic Teacher</th>
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<tbody>
<tr>
<td>Efficient</td>
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<td>Cheerful</td>
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<td>Competent</td>
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<td>Approachable</td>
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<td>Pleasant</td>
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<td>Capable</td>
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<tr>
<td>Friendly</td>
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<td>Exciting</td>
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<td>Organized</td>
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<td>Creative</td>
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<td>Patient</td>
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<td>Polite</td>
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<td>Interesting</td>
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<td>Dependable</td>
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<td>Considerate</td>
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<thead>
<tr>
<th>My Arabic Course</th>
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<tbody>
<tr>
<td>Meaningful</td>
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<tr>
<td>Enjoyable</td>
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<td>Absorbing</td>
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<tr>
<td>Effortless</td>
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<tr>
<td>Interesting</td>
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<tr>
<td>Necessary</td>
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<td>Appealing</td>
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<tr>
<td>Pleasurable</td>
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<td>Rewarding</td>
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<td>Satisfying</td>
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<tr>
<td>Important</td>
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<td>Exciting</td>
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<td>Clear</td>
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<td>Structured</td>
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<td>Nice</td>
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Appendix H. Interaction Tasks

High Motivation Task (1)

"Visit to Saudi Arabia"

Through a cultural-exchange program, you have secured a place with a group of 10 Arabic language learners to spend one week in Saudi Arabia. Your background knowledge in regards to the Saudi Kingdom is limited. You have gone online and watched a few promotional videos, but you still feel the need to ask Saudi nationals in the U.S. some more questions to better plan your time there. Among the things you have been wondering about are the country’s customs, protocol for male-female interactions, any other religious restrictions you should know about, availability of tourist services, and interesting destinations. To help you prepare for the trip, your Arabic language instructor has set up a meeting for you with a student who has recently arrived from Saudi Arabia and has limited proficiency in English. What questions would you like to ask her?

Take a few moments to think about at least five questions.

Reasons for classifying task as ‘High’ in motivation

- Task is rated as highly important by participants
- Topic of the task matches participant topic preferences
- Task coincides with participants’ reasons for learning Arabic
- Task addresses aspects participants found interesting in Arabic-speaking countries

- ‘Socializing with speakers of Arabic’
  - (4.58/5.00) in importance
- ‘Culture’
  - 87.3%
- ‘Everyday topics’
  - 83.5%
- ‘Religion’
  - 56.4%
- ‘Travel’
  - 45.5%
- ‘Interest in Arabic Culture’
  - #1 Reason
  - (4.42/5.00)
- ‘Communicate with Arabic Speakers’
  - #2 Reason
  - (4.33/5.00)
- ‘Culture’
  - #1 Interesting Aspect
  - (4.49/5.00)
- ‘Social Dynamics’
  - #2 Interesting Aspect
  - (4.41/5.00)
- ‘Interactions with Arabic-speakers’
  - #3 Interesting Aspect
  - (4.11/5.00)
- ‘Tourism’
  - (3.24/5.00)
“The United States of America: The Officer of the World?”

As part of your study abroad experience, the program arranges for you to attend a politics class taught in Arabic at Cairo University. After a lecture on America’s foreign policy, you go to the cafeteria for lunch. There, two of your Egyptian classmates are still debating the role of the United States of America in the world today, but you don’t quite understand their viewpoints once you join them. You hear the words ‘superpower’, ‘nation-building’, and ‘spreading democracy’ as well as examples of times when the United States has stood idly by while many lives were lost through civil wars and acts of genocide. What questions would you ask them to better understand how they feel about America’s responsibility to the rest of the world?

Take a few moments to think about at least three questions.

End by sharing your own opinion about this topic. Should the United States utilize its strength and power to help those unable to help themselves ward off aggression from oppressive leaders? Or should it simply look after its own interests and address its domestic concerns, regardless of the consequences?
High Motivation Task (3)

"Scariest Moment Ever"

On vacation in Jordan, a middle-aged Arab woman is sitting close to you in the lobby of your hotel. You hear her say, "الحمد لله كنت خالدة بناء" many times into her cell phone. She hangs up and turns to look at you with a smile and obvious relief. Sensing her need for conversation, what questions would you ask her about the moment of fear she has just experienced?

Take a few moments to think about at least three questions.

End by telling her about a personal experience in which you have felt very scared. Explain the circumstances of that experience, how scared you were, and why you consider it the scariest moment of your life.

Reasons for classifying task as ‘High’ in motivation

- Task is rated as highly important by participants
  - 'Narrating a story or personal experience' (4.67/5.00) in importance
  - 'Socializing with speakers of Arabic' (4.58/5.00) in importance

- Topic of the task matches participant topic preferences
  - 'Everyday topics' 83.6%

- Task coincides with participants' reasons for learning Arabic
  - 'Communicate with Arabic Speakers' (4.33/5.00)

- Task addresses aspects participants found interesting in Arabic-speaking countries
  - 'Interactions with Arabic-speakers' #3 Interesting Aspect (4.11/5.00)

- Task provides condition for maintenance of motivation
  - 'When the activities are personally relevant' #6 Motivating Condition 14.5%
Low Motivation Task (1)

“Arabic Language Learning”

In a campus-wide announcement, you read that a prominent Arabic second language learning specialist will be visiting the university for one month. The announcement states that she will be available to all learners of Arabic during office hours. Your instructor strongly encourages everyone in your class to speak to her about any concerns or difficulties in learning the language. She requires all learners to use MSA during their interactions with her and is known for her long grammar-based corrections. What questions about your own learning experience with Arabic would you like to ask her?

Take a few moments to think of at least five questions.

Reasons for classifying task as ‘Low’ in motivation

- Task is rated as low in importance by participants
  - ‘Linguistically-focused Uses’ (2.16/5.00) in importance

- Topic of the task does not match participant topic preferences
  - ‘Language’ not mentioned by participants as a topic of interest

- Task does not incorporate any participant reasons for learning Arabic

- Task provides language-related conditions that participants feel cause their motivation to wane
  - “When the instructor lectures for a long time”
    - #6 Demotivating Condition
    - 20%
  - “When we work on grammar drills”
    - #8 Demotivating Condition
    - 21.8%
  - “When the instructor corrects me constantly”
    - #9 Demotivating Condition
    - 21.8%
Low Motivation Task (2)

“Consulting a Doctor”

On a five-week Arabic language instruction trip to Syria, where medicine is taught and practiced exclusively in Arabic, your roommate begins to complain of stomach unrest and headaches. Two days later, his condition worsens as a result of a rising fever. Because you are in Bloudan, which is an hour away from the capital, Damascus, you take him to the nearest clinic. The doctor tells you that your friend has food poisoning. What questions would you ask the doctor to better care for your friend?

Take a few moments to think of at least five questions.
Low Motivation Task (3)

“Journalism Today”

You have volunteered to teach English at a summer camp in Tunisia. You have just watched a documentary with your class about the ‘downward spiral’ of journalism. The report pointed to the shallow essence of twenty-four-hour news, the scarcity of objective perspectives, and the transformation of many news stations to profit-centers which pay entertainment salaries. It also alluded to the growing phenomenon of reporting attitudes instead of news through pundits and blogs. You wonder whether this state is unique to Western media or true of Arab journalism as well. Your Tunisian colleague who teaches art at the camp is a junior majoring in journalism at Tunis University. What questions would you ask her about the current state of journalism in the Arab world?

Take a few moments to think about at least five questions.

Reasons for classifying task as ‘Low’ in motivation

- Topic of the task does not match participant topic preferences
  - ‘Journalism’ (could be political) was specifically alluded to as a non-important topic in participant comments

- Task does not incorporate any participant reasons for learning Arabic

- Task provides conditions that participants feel cause their distraction
  - “When something is not interesting to me”
  - #2 Distracting Condition 20%
  - “When something is not important to me”
  - #3 Distracting Condition 25.5%
Appendix I. Sample Post-Task Reaction Chart

Front

Code __________ Date __________ Task Visit to Saudi Arabia

Below is a "motivation thermometer." Please think about how you are feeling now that you have completed the last interaction task. Consider the following: how hard you think you tried to interact, how much you wanted to learn from the task, and how much you enjoyed the interaction.

Then summarize your overall motivation by drawing a line marking the point which you think best describes your level of motivation.

Why did you choose this level?

Why did you choose this level?

Back

1. How carefully did you do the task? I paid
   - not much attention
   - some attention
   - much attention
   - very much attention

2. How difficult did you find this task?
   - not at all difficult
   - not so difficult
   - difficult
   - very difficult

3. How much effort did you put into this task?
   - very little
   - some
   - much
   - my very best

4. How well did you do this task?
   - not at all well
   - not so well
   - well
   - very well

5. How useful do you consider this kind of task?
   - not at all useful
   - not so useful
   - useful
   - very useful

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References


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