Testing interactional competence: Patterned yet dynamic aspects of L2 interaction

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Scholarship in language testing is increasingly embracing sociologically defined notions of language. This includes the notion of interactional competence (IC) which encompasses the various sequential, temporal, and embodied resources language learners utilize when interacting in the L2. This paper makes a contribution to scholarship that seeks to connect terminological and conceptual aspects of interaction research and research in language testing. To that end, this paper focuses on what is regular and structural about human talk-in-interaction, what it is that differentiates human interaction from prescriptively normative notions language professionals often apply to sentence-level lexis and grammar, and why including notions of interactional competencies is desirable in language testing. If language testing is to systematically target actual interactional abilities of L2 learners, then it is useful to examine what it is that makes interaction highly structured yet also dynamic to establish a conceptual basis for testing goals and practices.

Key words (up to 5): Interactional competence, testing, conversation analysis, language proficiency

Introduction

This paper aims to highlight structured yet dynamic aspects of L2 interaction vis-à-vis the goals and procedures of language testing. Applying systematic language testing practices to video-recorded interaction produced by L2 learners requires a conceptual discussion of what human language is and how it works. Sampling and rating L2 learner language always applies tacit or explicit ideas about the nature of that which is to be sampled and rated. When interaction among L2 learners becomes an object of language testing, understanding what makes interaction systematic is critical. This includes

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understanding human language primarily as a resource to do action with, realizing that actions proceed in sequences, and realizing that the doing of interaction involves socially distributed knowledge that reaches across speakers and across turns at talk. Similarly, it is useful to appreciate what makes human interaction inherently dynamic. Interaction is in part a matter of ambiguity, trouble sources occur routinely in interaction, and misattribution of meaning and the notion of choice comprise fundamental aspects human interaction, for native speakers and L2 learners alike. Basic views of human language, its purpose, and its inner workings are at stake when we tie language testing practices to notions of language use in interaction.

Testing L2 learner language beyond the range of vocabulary, fluency, or grammatical control basically targets pragmatic ability, i.e., that which an L2 learner can *do* with their language proficiency when they use the L2 to pursue real-life communicative goals. Testing L2 pragmatics is a relatively recent phenomenon but has made significant progress in the past 20 years (Taguchi & Roever, 2017, p. 238), providing the conceptual umbrella for a variety of action-based views of human language that have been applied to L2 testing (Alcón Soler & Martínez-Flor, 2005; Levinson, 1983; Kasper & Rose, 2003; Rose & Kasper, 2001). Recently, this work has resulted in conceptually linking sociological and cognitive definitions of language and language learning (Block, 2003; Douglas Fir Group, 2016; Eskildsen & Markee, 2018; hall & Kasper, 2019; Firth & Wagner, 1997).

It is this cross-disciplinary discourse from which the term interactional competence (IC) has emerged (Eskildsen, 2018; Hall, 2018; Hall et al., 2011; Pekarek Doehler, 2018; Pekarek Doehler & Berger, 2016 Young, 2011). IC as a notion equally encapsulates cognitive, embodied, and social-interactional dimensions of human language and language learning (Goodwin & Salomon, 2019). IC-oriented inquiry is currently applied to a variety of subfields in second language studies, including the analysis of situated classroom interaction (e.g., Seedhouse, 2004; Sert, 2015), research on the teaching and pedagogy of L2 interaction (e.g., Barraja-Rohan, 2011; Betz & Huth, 2014; Waring, 2018; Wong & Waring, 2010) and SLA work on L2 language development over time as it can be observed in situated interaction, both in institutional settings and in "the wild" (e.g., Al-Gahtani & Roever, 2015, 2018; Markee, 2008; Theodórsdóttir, 2011; Wagner, 1996, 2010, 2015).

IC goes beyond sentence-level lexis, morphology, and syntax by including L2 learner's knowledge and abilities that are situated in, and negotiate, the sequentiality of interaction (Sacks et al., 1974; Schegloff, 2007), the temporality of talk-in-interaction (Deppermann & Günthner, 2015), and the realities and consequences of embodied resources for meaning-making (Streeck et al., 2011). Concerning the sequentiality of interaction, IC enables

participants in interaction to recognize a given utterance as an action and to meet that action with a relevant next action. This happens when, for example, speakers recognize a turn containing a question as a request for information and subsequently meet that question with an appropriately informative answer (Schegloff, 2007). Concerning temporality in interaction, IC enables speakers to ascribe meaning to the notable delay of a forthcoming turn, say, of a response. A delayed response to an invitation would relevantly project the potentially incipient declining of that invitation (Davidson, 1984; Sacks, 1987. Similarly, the notable increase of both the rate of speech and volume during a turn by a speaker can be utilized as a turn-holding device as interactants negotiate, competitively, the conversational floor in real-time (Zhang, 2012). Finally, IC enables competent speakers to understand embodied resources, such as body stance, facial expressions, and gestures as meaningful contributions to the production or understanding of social conduct in interaction (Streeck, 2013).

Thus, in addition to lexical and grammatical constructions, the notion of IC conceptualizes sequential, temporal, and embodied resources as a complex multimodal yet highly structured repertoire for expression that produces meaning as action (Mondada & Traverso, 2015). All of these in concert are deployed systematically by competent interactants in order to put human language towards its primary purpose: achieving social action, coordinating adjacent turns, establishing intersubjectivity, and the enchronic building of social relationships with others, a process that is ultimately accountable to, and sanctioned by, others (Enfield & Sidnell, 2017). This view of human language is fundamentally dynamic while at the same time positing the consequentiality of systematic resources that drive and organize social interaction not only for native speakers, but also for L2 learners. Fundamentally, IC goes beyond individual language users and language learners, relying fundamentally on recipiency in talk which reaches across speakers and across turns (Drew, 2013).

Language testing as a research field is currently investigating the consequences of these insights. In part, this effort is driven by research that shows unambiguously that the doing of interaction (Kecskes et al., 2018) is a function of relative language proficiency (Al-Gahtani & Roever, 2015, 2018; Eskildsen, 2012; Galaczi, 2014; Pekarek Doehler & Berger, 2016; Pekarek Doehler & Pochon-Berger, 2015; Pekarek Doehler et al., 2015). In other words, how L2 learners do interaction varies on different levels of proficiency. IC in an L2 learner changes as the language learning process progresses.

Language testing has acknowledged that the social dimension of language usage is historically underrepresented in assessment and testing procedures (McNamara 1997; McNamara & Roever, 2006; Young, 2012). While research in language testing includes

studies inquiring into the testing of sociolinguistic and pragmatic competencies of L2 learners (e.g., Roever et al., 2014; Ross & Kasper, 2013; Taguchi & Roever, 2017; Timpe-Laughlin & Choi, 2017), research on testing L2 learner interaction is gaining increasing attention. *Language Testing* featured special issues on pair work and assessment (Taylor & Wigglesworth, 2009) and on interactional competence most recently (Plough et al., 2018). Work in this vein seeks to address basic questions surrounding the feasibility of eliciting ratable samples of L2 learner interaction, the validity of IC as a testing construct, and what kind of testing procedures offer viable contexts for systematic testing (e.g., Galaczi, 2014; Kasper & Youn, 2017; Youn, 2015).

What connects these efforts is the increasing awareness that, for testing purposes, it may be insufficient to elicit ratable language samples from L2 learners that focus on individual language production while not including the back-and-forth of talk with others. As Roever and Kasper (2018) argue:

> Foregrounding a psycholinguistic-individualist perspective requires tasks that can elicit a ratable amount of language but does not require language use to be embedded in social interaction or situational contexts, thereby enabling computer-based testing of monologic speaking as implemented in TOEFL and PTE Academic. Even where face-to-face speaking tasks are administered, such as in IELTS Speaking or the ACTFL OPI, this perspective does not emphasize the measurement of interactional abilities but uses the interaction primarily as an elicitation tool to obtain a ratable sample of spoken language. (p. 332)

Roever and Kasper consider the constraints of this practice as significant and propose an alternative:

> Under this perspective, inferences regarding test takers' ability to use language in social interaction are difficult to support since social interaction is not part of the rating. This is a serious concern for the real-world use of test scores where speaking scores are usually interpreted by end users as indicating test takers' ability to interact in a variety of settings and with a variety of interlocutors and not just to produce context-free fluent, accurate and complex language…By contrast, foregrounding a sociolinguistic-interactional perspective requires tasks that can elicit purposeful, interactive language use to provide evidence about test takers' ability to tailor their talk to their interlocutor and the situation… and participate in interaction. (p. 332)

Building testing procedures that address these contingencies presupposes awareness of what it is that is being tested and its nature. Much of the foundational research that

provides insights on the matter draws from work in conversation analysis (CA). CA can be studied via comprehensive introductions to the field (see for example Clift, 2017; Liddicoat, 2007; Richards & Seedhouse, 2005; Schegloff, 2007; Sidnell, 2010; Sidnell & Stivers, 2012; Ten Have 2007). This paper cannot replace such treatments in scope and depth. However, I aim to discuss some key concepts vis-à-vis the goals and practices of language testing to show what it means when we look at L2 interaction as a testable construct that reaches across speakers and across turns at talk.

Structural aspects of interaction

In this section, I illustrate that interaction is highly systematic by discussing the kinds of structured phenomena and mechanisms that serve as evidence of IC in spoken interaction. These are central to defining IC as a test construct. I focus on key regularities that have been empirically established, illustrating that (a) human language is a resource to do action with, (b) turns are consequential units in interaction, (c) connected turns form sequences, and (d) such paired action and the forward projection it affords are key mechanisms in engaging in interaction, including L2 interaction. I then proceed to characterize these key aspects of interaction as structural and patterned but as not to be conflated with the kinds of patterns and rules that apply to sentence-level lexis or morphosyntax.

Drawing from foundational research in CA and almost 50 years of pioneering work in that field (Sacks et al., 1974; Schegloff, 2007; Sidnell & Stivers, 2012), Clift (2017) condenses the key insights required for understanding interaction, which is recognizing the centrality of "action and sequence". First, participants in interaction understand (and orient to) talk as action. Only when we posit that humans treat language usage as action are we able to understand that a simple "Hello" may achieve a greeting. A greeting is a social action which is produced by a human being, and it is directed at another human being, not a reference to (or description of) the world. Similarly, "I'm sorry" can be understood as an apology, which is a type of social action. A seemingly mundane "Huh?!" achieves a social action as well, i.e., indicating mishearing or misunderstanding on part of the hearer (Drew, 1997).

Thus, whatever we say, we rarely just describe the world. Rather, we achieve something, some kind of action as we tailor our talk to other people. In that sense, interaction research proceeds on the assumption that "words and grammar" strung together are not ends in and of themselves, but rather a means to a larger (social) end, namely, to achieve some action. "Grammar" in the classic sense and social interaction share a reflexive relationship

(Schegloff et al., 1996). Lexical and morpho-syntactic principles are thus understood as vehicles for achieving salient conduct with and for others, and always as items that are embedded in, and shaped in their meaning by, the sequential flow of turns in interaction.

Second, interaction does not consist of isolated utterances. Rather, interaction involves connected discourse that reaches across speakers and across the turns in talk. With each turn that is taken in interaction, action emerges, making relevant subsequent action in its wake. Clearly, an isolated "I'm sorry" cannot produce an effective apology just in and of itself – it has to be encountered, it has to be received by others, and it has to be responded to in order to do its work. Thus, participants in interaction, including L2 learners, do not simply send message packages that are automatically received and therefore understood by others. Rather, interactants focus on producing temporally adjacent turns that relate to one another. For example, questions make relevant answers, and if a question is not met with an answer, then this carries meaning in terms of doing some action as well, such as the notable withholding of information, or active non-engagement, with all its attendant and very real consequences. Imagine someone saying "I love you" to someone else and no verbal response is forthcoming subsequently, and no non-verbal action (such as a hug or kiss or a unilateral, physical departure) either. Recipiency is a key aspect of interaction, and it is a matter of regular patterns and procedures that have been empirically described.

The back-and-forth of talk is thus organized across speakers and across turns. Turns engender actions, and some of these are specific inasmuch as they relate to one another structurally so as to form discernable pairs. Consider the following data example, the beginning of a telephone conversation.

Example 1 (Levinson, 1983, p. 312)
```
01      (ring)
02      A:      hello
03      B:      hello rob. this is laurie.
04              how's everything
05      A:      pretty good.
06              how 'bout you.
07      B:      jus' fine. the reason I called was . . .
```

Here, we see a number of pairs. In lines 02/03, Laurie and Rob produce greetings (line 02, hello, line 03, hello rob). A common pair at the beginning of talk is greetings, and once a greeting is produced, it regularly prompts counter-greetings to occur. In lines 05-07, we see more actions that are produced via turns or parts of turns, initiating connected sequences of turns that are initiated by one interactant and completed by another. In line 04, we find a question by Laurie (line 04, how's everything), which is answered in the

directly adjacent turn by Rob (line 05, pretty good). Question and answer thus build a sequence of connected and adjacent turns. They build what is called an "adjacency pair". Since both form requisite pairs to a sequence, we speak of first and second pair parts of which the sequence is built.

This is how interaction fundamentally works. Across speakers, and across turns, action and next action proceed in systematic ways. Some turns achieve specific actions (e.g., a question, or a greeting) and also make relevant a specific "next" action to follow (e.g., an answer, a counter-greeting). Other such pairs include request-response (acceptance/rejection), invitation-response (acceptance/rejection), or compliment-response (accept/reject). Therefore, in interaction, interlocutors constantly face the challenge of saying (and thereby doing) the next "thing", of producing a relevantly connected action to that which was just said prior. Paired action is one of the principles that underlies some of the calculations we make as we monitor, in real-time, what was just said, what is being said currently, and what may relevantly come next (for the principle of "progressivity" in interaction, refer to Stivers & Robinson, 2006).

How strong is the connection of paired action? An interesting exercise in introductory CA classes is having students try to produce a conversation with each other in which no "next" turn relevantly or saliently connects to the previous one. That's challenging, because speakers constantly project forward what the turn-in-progress is currently doing and that is must be relevant for the further proceedings of the conversation-in-progress. The presence of discernable actions in turns is critical for anyone to ascribe meaning to that which is being said (for the concept of "action ascription", see Levinson, 2012). It clearly matters that whatever is initiated by us will set in motion relevantly connected actions by others.

Consider the following example which illustrates what happens when a clearly projectable, relevant "next" is *not* forthcoming:

Example 2 (Atkinson & Drew, 1979, p. 52)
```
01      A:      Is there something bothering you or not?
02              (1.0)
03              Yes or no
04              (1.5)
05              Eh?
06      B:      No.
```

We see in line 01 how speaker A produces a question (Is there something bothering you or not?). We can tell by the design of the turn (see Clayman, 2012 on turn constructional units/TCUs) by way of its lexical, grammatical, and intonational aspects. This includes

the semantic content of the words used in this turn, the first position of the verb, and rising intonation at the end of the turn. Based on the principle of typed turns, paired action, and the sequences that pair parts form, a response in terms of an answer is now projectable for speaker B. However, no response is forthcoming, at least not immediately. We see two rather long pauses of 1 and 1.5 seconds respectively, and we also see repeated (and increasingly short) prompts by speaker A that indicate that speaker A considers a response in the form of an answer as "due" next. Eventually, B provides that second pair part, a response and answer, in line 06.

Example 2 also illustrates that, even if we don't talk, we still communicate, we still achieve actions, because "not talking" always fills a precise sequential slot in the back-and-forth of talk and thus happens in a specific context that provides conceptual framing. In other words, what we say or don't say (and thereby achieve) will be understood in terms of its precise placement, i.e., in terms of what the immediately preceding and following configuration of turns did. Thus, in interaction, speakers and hearers (or better: interactants) are constantly anticipating, interpreting, and producing adjacent turns, in order to do action, in order to make their conduct salient to each other. And they do so not randomly, but systematically. Without knowing what to say (and thereby do) next, we cannot have a workable conversation. Each turn must connect, somehow, to that which was just said prior.

In sum, saying things does things, talk accomplishes actions (Austin, 1962; Searle, 1969). Social action is achieved collaboratively by two or more speakers who produce language and embodied conduct (a) across at least two turns, (b) in the context of larger courses of action, and (c) in a specific setting and within a history of interaction, thus relying on common ground (Clark, 1996; Enfield, 2006). When researchers who study interaction speak of "co-construction", this is what they mean. When research shows that interaction is built on recipiency, that it is indeed actively designed with and for others, then these are the basic insights which are operationalized. When humans interact, they do so across turns and across speakers, and they try to make what they say and do salient and understandable for others so they can respond fittingly and relevantly with something "next". The resources for doing this go far beyond words and grammar. Rather, they include the full array of lexical, grammatical, intonational, temporal, sequential, and embodied resources that humans have at their disposal.

These basic, empirical findings are the basis for a reconceptualization of L2 learner talk as L2 learner interaction. Action formation, sequential positioning, recipiency, and collaborative co-construction are the basic principles, mechanisms, practices and procedures that are in focus when the interactional competencies of L2 learners are

considered as targets for language testing. Interactional structures are empirically manifest and are thus testable and ratable.

Dynamic aspects of interaction

When first initiated to some of these basic, structural regularities in interaction, it is tempting to leap to the conclusion that structures that reach across turns and speakers may, in essence, be comparable to the kind of obligatory rules we find in human language on the sentence level. The standard variety of a given language that is taught (and learned) exhibits normatively binding rules on the levels of phonology, lexis, and morphosyntax. As Huth and Betz (2019) note, small scale language assessment in the context of institutional education relies on applying standardized notions to them for rating purposes:

> Prefixes belong at the beginning of a word (not in the middle), and English unmarked word order is SVO (not the other way around). Sounds, words and grammar can be and are relevantly viewed in terms of overall correctness (or 'grammaticality,' a categorical notion), and language testing ascertains to what extent the language production of one individual L2 learner conforms to the normative-prescriptive notions of the L2. Clearly, language testing on the level of pronunciation, vocabulary and grammar, relevantly and suitably, knows right vs. wrong, correct vs. incorrect. (p. 327)

It is worth noting that interactional structures should not be conflated with notions of in/-correctness in prescriptive terms. A number of insights require us to view the structures that reach across turns and speakers in interaction as highly systematic, but with some important caveats. These are the notions of ambiguity, trouble sources in talk, misattribution of meaning, and finally choice and volition. This section illustrates how these four caveats matter and concludes with a characterization of human interaction as orderly and thereby testable while relying on a fundamentally dynamic view of human language.

From the outset, it is useful to note that human interaction is always culturally grounded. To which extent structures in interaction are universal across all languages and to which extent they may be specifically realized in particular language communities is a matter of empirical research (Evans & Levinson, 2009; Sidnell & Enfield, 2012). Studies suggest that certain fundamentals, such as aspects of turn-taking and repair (Dingemanse et al., 2013; Stivers et al., 2009) are universal, but studies also show that actions and larger sequences of actions may be realized differently in similar social contexts across linguistic

communities (see for example Flöck, 2016; Golato, 2005; Taleghani-Nikazm, 2005; Zinken, 2016). In concert, the mix of partly universal and partly culturally specific interaction structures around the globe provides the source for miscommunication. This equally applies to communication across linguistic and cultural boundaries as it does to communication within linguistic and cultural boundaries.

In fact, a key insight about human interaction is that people regularly, indeed frequently, misunderstand one another. While human interaction exists to make mutual understanding possible, the process is neither automatic, nor is it guaranteed to work. Rather, the process of producing salient conduct with and for others in situated interaction is inherently collaborative, and thus often creates difficulties. If that were not the case, there would be no misunderstanding in the world. However, human misunderstanding is a routine occurrence. In essence, misunderstanding is a function of misattributing meaning to an action produced by others in the back-and-forth of talk.

Note that above, we established that some turns are typed in the sense that they may produce a given action (such as a greeting, a question). We also established that some turns project other turns to follow in response (such as counter greetings, or answers). However, human social action can also be ambiguous. A common joke goes like this: A man asks a passer-by in the street "Do you happen to know what time it is?" and the passer-by answers "Yes" and walks on. This illustrates one of the fundamentals of how we know what someone does (in terms of an action) by saying something. Here, asking for the time in the context of a busy street in public clearly sets up the question as a request for being told what the time is, not the circumstance of whether or not the passer-by has the requisite knowledge to tell it. However, given the lexical formatting of the question, both trajectories are theoretically possible (if not equally contextually *likely*), thus enabling the joke. Whoever understands it realizes that some turns are imbued with multiple possible actions at once, resulting in ambiguity. It is then the interlocutor's charge to choose an available and likely forward trajectory, to actively ascribe action (request to report on state of knowledge vs. request for telling the time) to expression (Do you happen to know what time it is?). And this is something that can, and often does, go wrong in interaction.

Misattribution of action is a common, indeed frequent occasion in interaction, including in interaction of L2 learners. It may be due to ambiguity inherent in the conduct of an interactant, or it can be a function of plain mishearing or misunderstanding as turns fly back and forth at considerable speed. Consider example 3 in which a trouble source occurs, is realized, pinpointed, and resolved collaboratively by the interactants involved:

Example 3 (Schegloff, 2007, p. 111)
```
01      Anna:           Was last night the first time you met Missiz Kelly?
02                      (1.0)
03      Bea:            Met whom?
04      Anna:           Missiz Kelly.
05      Bea:            Yes.
```

Here, Bea does not provide an immediate answer to Anna's question. In line 2, we see a pause of a full second, and with that delay, Bea proceeds to initiate what is called repair. Repair is a method or procedure that interactants resort to when trouble occurs because of mishearing or misunderstanding. Here, repair is initiated in line 3 (Met whom?) and completed in line 4 (Missiz Kelly.). It is only then in line 5 that Bea finally provides the answer, the second pair part of the sequence set in motion in line 1 via Anna's question. Thus, we see that lines 1 and 5 initiate and complete the adjacency pair question-answer, but that other business is wedged in between, is inserted in order to address evident trouble sources in talk. This is why adjacency here does not mean directly adjacent, invariably, turn after turn, each time. Interaction negotiates mutual understanding, and therefore it would be misguided to conceive of adjacency pairs as units that invariably and categorically must occur side by side. The dependencies and connections sometimes span many lines of transcript, and we all know that sometimes, a simple adjacency pair (such as the granting of a request on the telephone when we ask others to give us a ride somewhere) can take half an hour to accomplish. Thus, interaction is highly structured, and yet it is inherently dynamic as the participants are attending to local contingencies as needed, such as resolving trouble sources via repair. And while the adjacency pair remains active and open for completion once it is initiated, the question is where and in what precise position it will eventually find its completion. This is where interactional structures and sentence-level grammar differ notably in nature.

Which brings us to the notion of choice or volition. When interactants engage with one another, they negotiate their relative agency as they cooperate with, or resists, various possible constraints in talk (Heritage & Raymond, 2012). Sentence-level grammar does not afford that freedom, as morphosyntactic structures are governed by categorical rules. If I violate SVO in English, or when I attempt to conjugate prepositions in English, ungrammaticality is the result. In contrast, in interaction, normatively expectable actions can be ambiguous, action ascription can miss the mark (and potentially be repaired subsequently), and finally, each participant to an interaction has the power and burden of choice. This choice concerns the anticipation, the interpretation, and the production of relevant next turns. Choice includes the power and burden of conforming to, bending, or breaking normative expectations in interaction.

Interactants are thus constantly burdened with the choice to make use of the sequential, temporal, and embodied resources for meaning-making vis-à-vis their psychological and volitional worlds. Speakers may choose to be uncooperative and withhold answers. Speakers may choose to repair a trouble source or not as they see fit and as they deem appropriate. Speakers may also choose not to conform to the normative expectations that make cooperative, successful interaction possible. For example, speakers may decide to be deliberately rude or confrontational. Similarly, speakers may choose to circumvent or altogether defy the normative expectations for cooperative social conduct. However, this too is a choice that is only possible based on shared knowledge and competencies that rely on structure in interaction to begin with.

Ambiguity, misattribution of meaning as action, trouble in hearing or understanding, and the burden of choice - in concert, these fundamentals differentiate interactional structures clearly from grammatical rules by their dynamic elements. It is thus useful to view turns and the actions they achieve not as static and monolithic structures per se, but rather as structured resources or procedures. As Pekarek Doehler (2019) notes, the competencies to systematically engage with others in interaction are best viewed as practices, as "methods for action" (Garfinkel, 1967), or, alternatively, as shared procedures (Hall et al., 2011).

For the purposes of language testing, we may ask to which extent interactional "methods" or "procedures" as characterized above might be viewed not only as shared, but also as normative. This question would likely apply a prescriptive, standardized, or standardizing frame to an object that does not answer to such a frame per se. An answer to this question requires an epistemological and terminological shift away from "what should interaction be like so it is testable" in normatively prescriptive terms to "what do we know about how interaction works within and across languages and in language learners so we can test them". This question can be answered, as we know that some interactional structures and procedures seem to be universal, such as turn-taking or repair (see above). That notwithstanding, if we feel strongly moved to answer a question if posed to us ("What's for dinner?"), then we feel the tug of normative expectation. And if we don't provide an answer, which is a possible choice that we have, there will be consequences, and that, too, would be in keeping with the very same normative expectations. Ultimately, the answer may lie in how others receive that which we say and do, how they hold us to account in response to whatever we say and do. As Enfield and Sidnell (2017) note from an anthropological perspective, the notion and nature of social action itself relies on, and is sensitive to, the considerable power (indeed, to the "tyranny", as they posit) of social accountability: "Accountability is a definitive element of social action. We can only know what a person has done when we know what a person

can be rightly held to account by others for having done" (p. ix).

This is why we hold politicians accountable for what they say (and thereby do) at precise points in time, and our children, our partners, our friends. We can only hold others to account for that which anyone can reasonably be held to account for, which is a matter of shared, socially distributed knowledge. There is indeed "common ground" in some basic assumptions and expectations about interaction which are deeply rooted in human sociality (Enfield, 2006). This common ground includes structural aspects of how interaction proceeds from individual turns to sequences of turns, and these structural aspects are rooted in normativity. As we will see below, they can be sampled, pinpointed, and rated in L2 learner interaction via testing procedures.

Interaction, proficiency, and language testing

For the purposes of language testing, the insights reviewed above provide robust conceptual and terminological grounds to examine ratable samples of L2 interaction to ascertain an L2 learners' interactional abilities. Interactional abilities are a matter of learning. Language acquisition research has begun to investigate the gradual emergence of interactional abilities in children over time (e.g., Cekaite, 2007; Stivers et al., 2018; Wootton, 1997). A number of studies have started to collect samples of L2 learner interaction at different proficiency levels and found, across studies, across proficiency levels, and across the languages that were involved, that L2 interaction between language learners exhibits systematic differences (Al-Gahtani & Roever, 2015, 2018; Pekarek Doehler & Pochon-Berger, 2015). In short, individual interactional abilities exhibit change over time alongside a temporal learning trajectory, which provides relevant grounds for systematic testing.

To provide two examples, Al-Gahtani and Roever (2015, 2018) show compellingly how, over time spans and contexts, L2 learners realize request sequences in different ways relative to their language proficiency. In other words, requests of L2 learners of markedly different proficiency levels exhibit different levels of complexity, local adaptivity, and sequential organization alongside the lexical and grammatical material that is being used. The number of conversational moves, i.e., how many turns are involved, and how requests are being prepared, carried out, and concluded in interaction, differ considerably across proficiency levels. These insights can be used as the basis for doing language testing that samples L2 interaction at different proficiency levels and aligns manifest performance with varying levels of "doing things" across turns and speakers in L2 interaction.

Similarly, Pekarek Doehler and Pochon-Berger (2015) show how disagreement sequences are realized in markedly different ways by learners of French of markedly different proficiency levels. While longitudinal CA-based studies of L2 learners' IC are a complex undertaking (Pekarek Doehler, 2010; Pekarek Doehler et al., 2015), they are emerging and have shown change over time in language learners' IC. These findings have prompted SLA researchers to take stock of what is thus far known about developmental aspects of L2 learners' IC vis a vis language proficiency. Figure 1 below outlines the summary:

1. Interactional competence is not simply transferred from the L1 to the L2 but is recalibrated, allowing the L2 speaker to increase the local efficacy of her conduct.

2. Less proficient L2 speakers tend to start off with a highly limited set of techniques for accomplishing a given action (such as taking a turn, initiating repair, proffering a disagreement), and these techniques are used as standardized "pass-partout" resources for a given interactional purpose, independently of the circumstantial details of the interaction.

3. Over time, these techniques become diversified, allowing participants to deploy more locally adapted and interactionally accepted conduct.

4. This diversification implies both the sequential organization of actions and the linguistic resources put to use.

5. The diversification of "methods" for accomplishing social interaction essentially involves a growing ability to recipient design talk and to deploy context-sensitive conduct, i.e., conduct that is better tailored to the local circumstantial details of the interaction.

Figure 1. Interactional competence and language development
(Pekarek Doehler & Pochon-Berger, 2015, p. 262)

Thus, L2 learners' IC is structured and can therefore be sampled via interactional data that is (ideally) video recorded. L2 learners' IC is a function of relative proficiency, indicating that testing can ascertain language proficiency levels based on the relative "diversification of methods" for doing L2 interaction with others. The focus of such tests must be on how specific action types and their formatting emerge from samples collected in institutional or otherwise systematic testing contexts.

How does testing for IC in L2 learners work? How can ratable samples of L2 interaction be elicited in order to yield desirable results? As Taguchi and Roever (2017) note, the

what and how of language testing that operationalizes action-oriented views of human language generally (and of L2 language usage specifically) have undergone significant developments in the past 20 years (see also Ross & Kasper, 2013). At first, tests targeting L2 pragmatics focused on the recognition of grammatically and socially acceptable action types of particular speech acts such as refusals, request, or apologies (e.g. Hudson et al., 1995). These early tests targeted constructs such as social distance, relative power differential between interlocutors, or perceived degree of imposition of a given action, and often utilized role play formats and also written multiple-choice instruments. Later studies widened the scope of the targeted constructs by including notions of implicature, a wider repertoire of speech acts, and moved towards emphasizing the interactive nature of real-life discourse by including some aspects of recipiency and recipient-design, such as afforded by rejoinders (Roever, 2005). Sandlund et al. (2016) survey articles between 2004 and 2014 that feature empirical studies of oral proficiency testing with a specific focus on discourse and social interaction, many of them with conversation analytic approaches. This includes investigations into the intricacies of testing pair work, the nature of interlocutor effects, or studies on group testing.

What remains is the continued need for practicality in testing L2 learner interaction. If it is to be successful, testing IC must allow for going beyond relatively small sample sizes, and venture into the sampling of extended discourse across multiple turns and extended sequences of action. That said, such samples cannot be too long or too numerous for a rater. In language testing, scale matters. This concerns scale in terms of how large a given sample is, and also scale in terms of sample volume. In instructed language learning environments, sampling and rating short passages of monologic or dialogic L2 learner talk has become increasingly feasible via the increasing ubiquity of audiovisual technology. Clearly defined tasks can be set up on digital course management platforms (e.g., Moodle, Blackboard, Canvas, etc.), where they can also be uploaded, and then rated by instructors. For example, a simple monologic task could be "leave a voice mail at Business X requesting information about a specific product". Such monologic tasks would involve an L2 speaker's orientation to audience, purpose, and conversational structure, in short: an orientation to a number of social actions their voice message would have to accomplish. Dialogic, i.e., interactive tasks could utilize role play, in real time, for a similar scenario, but with two interlocutors role playing this situation. For L2 teachers, sampling and rating 1-2 minute video recordings such as these is feasible given a class size of 20-30 students. In larger scale commercial language testing, scale would have to be adjusted in terms of how many samples can be processed by a rater in a given time increment, and in terms of the length of the sample. This is particularly the case if testing and rating L2 IC involve transcription.

However, empirical studies on test design are beginning to address the logistics of sampling and rating extended discourse (i.e., the sampling and rating of talk that spans multiple turns and sequences of talk at once). Youn's work shows how monologic tasks (Youn, 2013) or role-plays (Youn, 2015) can be utilized to sample and rate interactional aspects of individual L2 speakers' talk, respectively. If monologic L2 data are coupled with samples of the same L2 learner interacting with others in real-time talk (in role-plays or otherwise), then interactional abilities of individual language learners can be rated not only in light of their individual language production that does not involve interlocutor input. Rather, the same L2 learner's interactional abilities can be viewed and rated via their manifest engagement with real social actors speaking the L2. A mixed methods approach to testing L2 IC would capture the notions of recipiency, co-construction, and negotiating meaning with others in the data. These would then be rated by testing professionals against whatever criteria a given language test operationalizes.

Tests involving real-time interaction of L2 learners with others should preferably be based on video recordings, and then be rated according to prespecified criteria. As Majlesi and Markee (2018) and Eskildsen and Markee (2018) show and emphasize, it is insufficient to rely on audio recordings only. This is because embodied and/or multimodal resources are critical for L2 learner interaction and therefore need to be visually captured. Youn (2015) suggests rating criteria such as how smoothly L2 learners would initiate turns or transition from one to the next, how L2 learners would display their understanding of prior turns through their own conduct, how L2 learners would recipient-design (i.e., tailor) their utterances to a given situation and/or interlocutor, or whether or not adjacency pairs are recognized and completed across turns and speakers. Others have shown that focusing on how L2 learners manage interaction is insightful when sampled at different proficiency levels, as this ability does change over time in L2 learners (Galaczi, 2014). In short, interactional competencies can be sampled and rated, and the results offer a window into language learners' relative proficiency not only in terms of the monologues they are capable of in response to a prompt, but also in terms of how well language learners negotiate spontaneous talk across speakers and turns.

Conclusion

Basic familiarity with how interaction works is a necessity for language testers to sample and rate aspects of L2 learners' IC. This paper approached IC by drawing primarily from conversation analytic research, thus emphasizing the sequential dimension of talk-in-interaction, locating the essence of human language in the doing of (social) actions across speakers and turns. The structured yet dynamic nature of interaction was introduced

based on basic concepts such as turns, adjacency pairs, sequences, action ascription, forward projection and progressivity in talk. The central contextual domain for IC (and its testing) in this approach is the sequential embedding of anything that is said and done. Thus, testing IC must include L2 learner production that can be viewed in its sequential context. Testing IC may of course also target aspects in L2 interaction that, while produced in sequential context, are also sensitive to other social contexts (such as knowledge of register or specific participation frameworks, see Young, 2011).

The immediate challenge in the field is furnishing sampling and rating procedures that are both suitable for the task and practical in their use (Kasper & Youn, 2017). Nonetheless, and as the studies in this issue show, this effort is well underway. Overall, we note alongside Roever and Kasper (2018) that language usage, including that of L2 learners, proceeds in turns and sequences. This insight would call for testing procedures that target the interactional conduct of L2 learners as it proceeds in turns and sequences. Interactants draw from resources for meaning-making that are situated in the local contingencies of talk. Talking to and with others involves an understanding of how "talk" works, how we say what we say, when precisely we say what we say, and what it was said in response to. Whether we have a dinner table conversation, an information exchange via email or text message at work, or a salary negotiation with a superior – using language in interaction means paying attention to what has just been said, and to what is going to happen next, relevantly, suitably, and fittingly. Interaction is built on recipiency and co-construction, all of which comprise principles and mechanisms that serve the overall purpose of human language: to produce salient social conduct with others and for others. Since the ability to do so is a central measure of how "proficient" or "functional" a native speaker or an L2 learner may be, it is positioned to add value to language testing efforts. The theoretical and conceptual foundations for testing IC are certainly in place. While still in its infancy, the development of viable and practical tests and test procedures is underway.

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