Patient-Provider Health Interactions:
A Communication Accommodation Theory Perspective

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Abstract

This paper critically reviews studies that have interpretively invoked communication accommodation theory (CAT) for the study of patient-provider interaction. CAT's sociolinguistic strategies—approximation, interpretability, interpersonal control, discourse management, and emotional expression—are succinctly introduced and their use in studies of patient-provider interaction discussed. The major findings of this analytical review are five-fold: (1) Both parties have problems approximating each other; (2) Both parties attempt to account for the other's knowledge and disposition; (3) A struggle for control is evident, mainly from the provider's side of the interaction; (4) Providers are better managers of discourse than patients; and (5) How or when providers express emotions has been the primary research focus, and not those of patients. This narrative review of the literature concludes that CAT is a productive approach to understanding linguistic as well as socio-psychological aspects of patient-provider health interactions. Noting providers' and patients' communicative behaviors, accounting for underlying motives and motivations, and attending to the sociolinguistic strategies guiding their behaviors may shed further light on the darker side of patient-provider interaction.

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1. Introduction

"Health communication is germane to all aspects of disease prevention, health promotion, and health education" (Sparks & Nussbaum, 2008, p. 346; see also Sparks, 2014; Sparks & Villigran, 2010; Thompson, 2000). This obviously societally-important topic emphasizes the roles of language in (a) assessing patients' mental and physical health, and (b) healthcarers' support of the recovery process (Nussbaum, Pecchioni, Robinson, & Thompson, 2000; Pecchioni, Ota, & Sparks, 2004). Importantly, research of this genre indicates how the cultures and identities of different kinds of healthcare professionals are integral to effective diagnosis and treatment (Watson, Hewett, & Gallois, 2012). Necessitating a reciprocal obligation and mutual action, on interpersonal as well as intergroup dimensions (see Dragojevic & Giles, 2014), effective communication in healthcare requires patient and provider to willingly and positively cooperate in promoting a climate replete with shared meanings and understandings (Stewart, 1995; Street, 2001; Travaline, Ruchinskas, & D'Alonzo, 2005). Throughout, the term *provider* is used to embrace a wide range of healthcare professionals (e.g., specialists, physicians, nurses, medical students, and the like).

In keeping with the significant roles played by language and communication, research on health communication has rightfully been criticized on two major grounds. The first points out the conspicuous absence of theoretical frameworks (for discussions of this, see Street, 1991; Thompson, 1994). In their review of the literature, Beck et al. (2004), for example, found that 75% of health communication studies have been *a*-theoretical. This is, of course, changing, and health communication studies have begun to incorporate language approaches and theories to expound on the dynamics of patient-provider interaction (see Bylund, Peterson, & Cameron, 2012). The second criticism raised is that studies of patient-provider interaction have viewed the nature of these encounters more in terms of their interpersonal (Lipkin, Putnam, & Lazare, 1995; Makoul, 1998), rather than intergroup (Giles, 2012), dynamics. For us, the conduct of healthcare provider and patient interaction is governed by a set of norms, roles, dynamics, beliefs, and stereotypes that signify, overtly or otherwise, the *intergroup* nature of a relationship, affecting, or at times, dominating the interaction (Watson et al., 2012). For this reason, and in pursuit of an interpersonal-intergroup paradigm, Gallois, Giles, Jones, Cargile, and Ota (1995) argued that intergroup and interpersonal behaviors cannot be placed on a continuum because they represent different, albeit connected, dimensions. That is, patient-provider interaction can sway between high and low degrees of interpersonal and intergroup salience (Dragojevic & Giles, 2014).

Acknowledging the above, we review and organize the body of research and practice that has employed a communication accommodation theory perspective for the specific study of *patient-provider interaction*; such a critical synthesis has not hitherto been engaged. Before that, the theory that is the foundation for the narrative literature review to follow is briefly introduced.

2. Theoretical Framework

As an interface between linguistics, communication, and social psychology, communication accommodation theory (CAT) is a framework for understanding the interpersonal and intergroup dynamics of speakers (and communicators) adjusting their language and nonverbal patterns to each other (for historical reviews of its development, see Gallois, Ogay, & Giles, 2005; McGlone & Giles, 2011). CAT highlights individuals' beliefs and motivations underlying their communicative behavior in the immediate situation, either oriented convergently toward or divergently away from others present. Highlighting a distinction between subjective and objective features of accommodation, Thakerar, Giles, and Cheshire (1982) defined psychological accommodation as "individuals' beliefs that they are integrating with and differentiating from others respectively, while [objective] linguistic convergence and divergence can be defined as individuals' speech shifts towards and away from others respectively" (p. 222). Put another way, a unique feature of CAT is its position that speakers accommodate (or not) where they *believe* or expect their interactants to be linguistically.

CAT focuses upon how, when, and why speakers attune their messages to match that of

their interlocutors (accommodation) or not (non-accommodation) and the ways in which conflict can be managed (Gasiorek & Giles, 2013). The theory (see Giles & Soliz, 2014) contends that communicators accommodate those they admire, like, respect, and trust and, in this way, social and communicative differences are attenuated. Interactants may accommodate each other either partially or to the fullest extent possible. Nonaccommodation can be manifest in *under-* and *over-*accommodating another (Gasiorek, in press; Gasiorek & Giles, 2012, in press; Hewett, Watson, & Gallois, 2015). Sometimes, only one interactant accommodates their conversational partner (unidirectional or asymmetrical accommodation) whereas, on other occasions, accommodation can be mutual and symmetrical (Gallois & Giles, 1998). Communicators do not accommodate and may even diverge away from those whom they dislike or disdain, thereby accentuating social distance - and especially when valued social identities are on the line.

CAT proposes accommodation-nonaccommodation can be enacted by means of at least five sociolinguistic strategies: approximation, interpretability, interpersonal control, discourse management, and emotional expression (see Coupland, Coupland, Giles, & Henwood, 1988; Giles, Gasiorek, & Soliz, 2015). Approximation strategies refer to making one's language and communication patterns more similar or dissimilar from another (as above). Interpretability strategies relate to accommodating another's perceived or expressed ability to understand what is going on in the conversation. Interpersonal control strategies refer to how individuals adapt communication based on role relations, relative power, and status. Discourse management strategies pertain to the adjustment of communication based on the perceived or stated conversational needs of the other interlocutor. Emotional expression strategies have to do with responding to the other's cognized or reported emotional and relational needs. With important contextual caveats acknowledged, it has been found that accommodation is more positively evaluated than non-accommodation (see Gasiorek & Giles, 2012; Giles & Gasiorek, 2013).

As an interdisciplinary theory of language and communication (Coupland & Jaworski, 1997), and being an essay entry in numerous Encyclopedias, CAT has been favorably critiqued in the literature with, for example, Griffin (2009) arguing that "…communication accommodation theory has morphed into a communication theory of enormous scope... [it]…can be beneficially applied to *any situation* where people from different groups or cultures come into contact (pp. 397-398). Similarly, Littlejohn and Foss (2005) also considered CAT to be "one of the most influential behavioral theories of communication" (p. 147). Such evaluations are based, in part, on the widespread empirical support CAT's propositions have received (for statistical meta-analyses of prior studies, see Soliz, in press; Soliz & Giles, 2014), for its ability to appeal to a wide array of qualitative analyses (Gallois & Giles, in press; Gallois, Weatherall, & Giles, in press), and for its incisive appeal to furthering our understanding of a broad range of language and healthcare issues (Watson, Hewett, & Jones, in press).

3. Methodology

We conducted a literature search in the following databases: PubMed/Medline, Science Direct, Sage Journals Online, Springer Link, and Wiley-Blackwell. No review protocol was specified in advance. To locate studies of patient-provider interaction invoking CAT, we chose "communication accommodation theory" as our primary keyword search string. The search results were edited by introducing secondary keywords indicating health (care) communication (e.g., health, medicine, medical practice, medical communication), combined with those indicating patient-provider interaction (e.g., medical encounter, patient, health professionals). The retrieved works fell between 2006 and 2014; twenty-one studies are reviewed in this manuscript (Table 1) and no further studies have emerged in the literature since.

The majority of the selected studies were conducted in the United States and Australia (71% and 19%, respectively); only one study was found in Europe. Of these 21 studies, thirteen used a non-experimental design (6 qualitative, 6 quantitative, and 1 mixed). The studies were analyzed using deductive thematic analysis based on the works of Boyatzis (1998), Braun and Clarke (2006), and Patton (1990). The five sociolinguistic strategies of CAT described above constitute a template for exploring the selected studies in the following section.

Table 1

Description of Studies

Study	Year	Use of Theory	Design	Data Collection Method	Data Analysis	Sampling				
						Size	Participants	Technique	Setting	Country
Qualitative non-experimental studies										
Janssen MacLeod	2010	CAT SCT	Descriptive	Semi-structured interviews	IPA	13	Terminally-ill cancer patients	Judgment sampling	Hospice care	New Zealand
Jain Krieger	2011	CAT	Descriptive	Semi-structured narrative interviews	Thematic analysis Principles of grounded theory	12	International internal medical residents	Snowball sampling	Public location	United States
Hemsley Balandin Worrall	2012	CAT	Descriptive	In-depth free-style interviews	Narrative analysis	15	Nurses	Purposive sampling	Hospital	Australia
Baker Gallois Driedger Santesso	2011	CAT SIT	Descriptive	Convergent interviews	Thematic analysis	51	Patients & providers	Grab sampling	Hospital	Australia Canada
Scholl Wilson Hughes	2011	CAT CTI	Descriptive	Open-ended paper-and-pencil survey	Constant comparative analysis	58	Patients & providers	Accidental sampling	Medical teaching institution	United States
Cretchley Gallois Chenery Smith	2010	CAT	Descriptive	Interviews with un-prearranged questions	Principles of grounded theory Thematic analysis	34	People with chronic Schizophrenia & care providers	Judgment sampling	Psychiatric facility	Australia
Quantitative non-experimental studies										
Hehl McDonald	2014	CAT	Descriptive	Secondary data (parent study: McDonal, Gifford, & Walsh, 2011)	Content analysis	22	Older patients with Osteoarthritis	Criterion sampling	Personal health care visits	United States
D'Agostino	2011	CAT	Descriptive	Video-	Content analysis	45	Medical	Purposive	Simulated new-	United States

Bylund				recording of medical visits (Secondary data from Bylund et al. 2010)	Correlation analysis		consultations	sampling	patient visits	
Puia McDonald	2014	CAT	Descriptive	Secondary data (parent study: McDonald etal., 2009)	Content analysis	74	Community dwelling adults	Criterion sampling	Community	United States
Jorge McDonald	2011	CAT	Descriptive	Secondary data (parent study: McDonald et al., 2009)	Content analysis	22	Community dwelling adults	Criterion sampling	Community	United States
Jones Woodhouse Rowe	2007	CAT	Descriptive	Semi-structured interviews	Content analysis	33	Parents of prematurely born babies (20 mothers, 13 fathers)	Accidental sampling	Neonatal intensive care unit (NICU)	Australia
Hannawa	2011	CAT	Descriptive	Video-audio recordings	Content analysis	30	Physicians	Grab sampling	Providers' interactions with simulated patients	Switzerland
Mixed non-experimental studies										
Lagacé Tanguay Lavallée Laplante Robichaud	2012	CAT	Descriptive	In-depth semi-structured interviews with open-ended items	Thematic analysis Content analysis	33	Cognitively intact seniors with chronic diseases	Judgment sampling	Long-term care facility	Canada
Experimental studies										
Williams	2006	CAT CPAM	Pre-post test	Naturalistic talk Original self-report scale	Content analysis Correlation analysis	60	Certified nursing assistants & paraprofessional	Grab sampling	Long-term care facility	United States
Shue Arnold	2009	CAT SAM	Posttest only	Structured interviews Existing self-	Correlation analysis	41	Medical students	Criterion sampling	Medical school	United States

				report measures						
Hesson Sarinopoulos Frankel Smith	2012	CAT	Randomized comparative two-group	Video-recording of patient-centered & clinician-centered visits	Interactional sociolinguistic analysis	8	Female MRI patients	Accidental sampling	Simulated patients	United States
McDonald LaPorta Meadows-Oliver	2007	CAT	Posttest only	Open survey	Content analysis	122	Registered medical surgical nurses	Accidental sampling	Hospital & school of nursing	United States
McDonald Shea Rose Fedo	2009	CAT	Randomized post-test only double-blind	Existing Self-report measures Audio-recording of pain responses	Inferential statistics	312	Community dwelling adults	Criterion sampling	Community	United States
McDonald Gifford Walsh	2011	CAT	Randomized post-test only double-blind	Existing self-report measures Audio-recording of pain responses	Content analysis	30	Community dwelling adults	Criterion sampling	Community	United States
McDonald Fedo	2009	CAT	Nonrandom two-group	Secondary data (parent study: McDonald et al., 2009)	Content analysis	312	Community dwelling adults	Criterion sampling	Community	United States
McDonald Shea Fedo Rose Bacon Noble Stewart	2008	CAT	Randomized control group	Audio-recording of pain open responses Existing self-repot measure	Content analysis	106	Community dwelling adults	Criterion sampling	Community	United States

4. Results

4.1. Approximation Strategies in Patient-Provider Interaction

Approximation is one of the strategies of CAT that has been a core part of the theory since its inception. As above, approximation strategies pertain to the ways an interlocutor adjusts their messages in response to the other and can found in convergence across a range of lexical, phonetic, and morphological features, amongst many others (Giles, Coupland, & Coupland, 1991). The studies of patient-provider interaction in our purview that have accounted for approximation strategies focus on geriatrics, communication disability, and intercultural/ language-discordant settings. Studies of this genre generally point to the fact that *both* parties have problems approximating each other.

With respect to geriatrics, it has been reported that providers use exaggerated intonation, high pitch and raised volume, reduced rate of speech, inappropriate terms of endearment (diminutives), simplified syntax and lexis, and collective first person plural pronouns in speech (see Giles & Gasiorek, 2011; Williams, Kemper, & Hummert, 2003). Such an approximation strategy, known also as elderspeak, is deemed an over-accommodative behavior used by providers in an attempt to be overly polite and cordial toward their older conversational partners yet, all the while, 'linguistically depersonalizing' them (Coupland, Coupland, J., Giles, H., & Henwood, K., 1988; Ryan, Hummert, & Boich, 1995).

The findings of an intervention-based study indicate that there is a negative linear correlation between providers' use of elderspeak and the participation rate of institutionalized physically-impaired elders in interactions (Williams, 2006). The reason for providers' use of this over-accommodative behavior may simply be filling the silences that oftentimes dominate conversations, especially with less conversant seniors. However, findings of qualitative interviews indicate that cognitively-active seniors living in geriatric residences perceive such over-accommodative behavior as demeaning, thus viewing the facility as a depersonalizing structure, and often comparing it to a hospital or even prison (Lagacé,

Tanguay, Lavallée, Laplante, & Robichaud, 2012). Hence, it is likely that this kind of over-accommodative stance may create and deepen a sense of dependence in seniors, causing a decrease in the quality of their long-term care.

Such over-accommodations in the use of approximation strategies have also been found in interactions with patients with developmental disorders and complex communication needs where providers reduce their rate of speech and use very basic words with patients (Balandin, Hemsley, Sigafoos, & Green, 2007; Hemsley, Balandin, & Worrall, 2012; Worrall & Hickson, 2003). Hemsley et al. (2012) maintain that such an over-accommodative stance toward patients who understand, but are unable to communicate that they understand, may engender feelings of discomfort, depression, and helplessness.

In intercultural settings where patient and provider represent different ethnic, national, or religious categories, a non-accommodative stance in the use of approximation strategies appears to be very evident. Jain and Krieger (2011) state that a plausible reason for this may rest on the potential for intergroup parameters of intercultural interactions to be salient (see Giles, 2012). Based on findings of a self-report survey, both providers and patients appear to address language discordance as a primary source of difficulty in intercultural settings (mostly rate of speech, pronunciation, and accent) and de-emphasize non-linguistic discrepancies such as ethnicity, religion, and nationality (Scholl, Wilson, & Hughes, 2011). Further, findings of qualitative interviews showed that international medical graduates use approximation strategies to overcome the more subtle language barriers verbally—by building a colloquial vocabulary, and modifying accent—or nonverbally through deliberate and conscious use of gestures, increased gaze and smiling, and so forth (Jain & Krieger, 2011). An interesting observation in this study (2011) is that providers may perceive their foreign accent as a facilitator rather than a hindrance in communication with patients. In other words, providers' maintaining their cultural identity (i.e., under-accommodation) may serve the pragmatic purpose of building rapport.

Clearly, an approximation strategy can be used in either a positive or a negative way, giving

interlocutors the choice to diverge if they want to maintain or accentuate their differences (Jones, Gallois, Callan, & Barker, 1999). However, optimistically speaking, the instances of providers' over-accommodation in the use approximation strategies, as with geriatric house residents and patients with communication disability, may bear the intent of creating proximity in interaction and appearing similar to the interactant (i.e., psychological convergence), yet the behavior is linguistically assessed as non-accommodative by the other. In addition, the case with international medical graduates offers hindsight in that foreign-born providers' under-accommodation in the use of approximation strategies may be psychologically assessed as accommodative behavior by patients.

A critical point that remains *un*addressed in these studies (Hemsley et al., 2012; Jain & Krieger, 2011; Lagacé et al., 2012; Williams, 2006) is the extent to which CAT-based health communication research accounts sufficiently for the distinction between linguistic *and* psychological accommodation in patient-provider interaction. Furthermore, as Giles and Coupland (1991) argue, approximation is only concerned with the interlocutor's response to the linguistic performance of the other and, thus, may not be a salient or an invariably appropriate criterion for explaining and assessing communicative behaviors. Put another way, provider's and patient's communicative behaviors toward each other may go beyond the mere matching, approximation (or not) of each other's productive performances, and include other strategies to be discussed in subsequent sections.

4.2. Interpretability Strategies in Patient-Provider Interaction

The interactional strategy of interpretive competence refers to the interlocutor's attuning to the other's ability to understand. Giles et al. (1991) postulate that interpretive competence can change during the course of interaction as interactants continuously reassess each other's ability to understand. Interpretability includes strategies such as modifying the complexity of speech, increasing clarity, and attending to topic familiarity (see Hewett et al., 2015). Interpretability strategies are manifested and

applied in studies of patient-provider interaction involved with pain communication, neonatal care, and palliative care. Generally, studies in this category show that both patients and providers make some attempt at taking into account the other's knowledge and disposition.

Pain communication is replete with complex and multi-dimensional opportunities for patient and provider that, if executed adequately, effective symptom management is warranted (Ryan, Giles, Bartolucci, & Henwood, 1986). Nonetheless, findings from convergent interviews show that providers under-accommodate patients by not accounting for their interpretive competence (e.g., using technical medical jargon) and, reciprocally, patients under-accommodate providers by failing to give an amply interpretable description of their symptoms (Baker, Gallois, Driedger, & Santesso, 2011). Ironically, however, both patients and providers emphasized the importance of presenting understandable information and expressed mutual expectations for clarity of talk in medical encounters (Baker et al., 2011; Scholl, Wilson, & Hughes, 2011). A potential strength of these studies is that the researchers sought the perceptions/expectations of *both* providers and patients. Probably, if such expectations are met, the avowed linguistic and communicative gaps may be filled by symmetrical accommodation with the view to invoking sociolinguistic closeness to engender more satisfaction and better health outcomes.

One way to ensure that patients' description of pain symptoms is sufficiently interpretable is to use so-called interventions. Findings from a series of intervention-based studies indicate that CAT-based interventions can enhance patients' pain description by helping them avoid general non-specific words and use more explicit medical terminology and syntax when interacting with providers (Hehl & McDonald, 2014; Jorge & McDonald, 2011; McDonald, Gifford, & Walsh, 2011; Puia & McDonald, 2014). Nevertheless, it is also documented that providers still may present only very limited pain management relief, even if patients' description of their pain symptoms is suitably interpreted (McDonald, LaPorta, & Meadows-Oliver, 2007). This may point to a lack of bidirectional accommodation,

which may be a serious issue in pain discussion settings and may give rise to non-accommodative behaviors. As Street (1991, 2001) argues, it may lead patients to become passive both in seeking information about their ailment and participating in decisions about their health. Therefore, this issue may call for further research as to why it happens and what education programs are needed to ensure that more appropriately-crafted care -pain management in this case- is delivered. Unfortunately, in none of these studies did McDonald et al. (Hehl & McDonald, 2014; Jorge & McDonald, 2011; McDonald et al., 2007, 2011; Puia & McDonald, 2014) account for both sides of the interaction: patients and providers.

In other medical encounters, such as in neonatal and palliative care, providers' non-accommodation to patients' interpretive competence can be frustrating and stressful. A good case in point is a study by Jones, Woodhouse, and Rowe (2007) where parents of prematurely-born babies were interviewed. Here, parents expressed concerns regarding the quality and quantity of information they receive from providers and assessed the latter's communicative behavior as under-accommodative when providers fail to provide clear, direct, consistent, and sufficient information regarding the health of their baby. Similarly, in a New Zealand study, findings of qualitative interviews with terminally-ill patients highlight the need for providers to accommodate their content and style to patients' interpretive competence, especially when discussing tests results, diagnoses and prognoses, and breaking bad news (Janssen & MacLeod, 2010).

It is likely that provider's (or patient's) non-accommodative stance may be based on preconceived biases and negative implicit stereotypes regarding roles, communicative needs, or relative power, which can get in the way of a satisfactory therapeutic relationship (see Watson & Gallois, 1999). Such notions driving communicative behaviors are explicated by CAT's next sociolinguistic strategy: interpersonal control.

4.3. Interpersonal Control Strategies in Patient-Provider Interaction

Interpersonal control strategies attend to how individuals attune their communicative behaviors based on preconceived beliefs and stereotypes, roles, and status and how they are enacted in interaction. An interlocutor deploying this sociolinguistic strategy would opt or not opt to exert power, control the discretion of the other, and direct the communication (Gallois, Franklyn-Stokes, Giles, & Coupland, 1988; Giles et al., 1991). In studies of patient-provider interaction (see below), interpersonal control strategies have been addressed in palliative care, neonatal care, and geriatrics. These studies clearly suggest a struggle for *control* is evident, and mainly from the carer's side of the interaction.

In palliative care, it is reported that terminally-ill patients expect providers to free themselves from the role-bound communicative behaviors and to accommodate patients by respecting their individuality and level of autonomy in collaboratively making decisions (Janssen & MacLeod, 2010). More or less similarly, in neonatal care, it has been found that providers impose interpersonal control in their interactions with parents (Jones et al., 2007). The findings of this qualitative study indicate a gender-based difference in interpretations of accommodation and non-accommodation. That is, providers' communicative behaviors such as emphasizing professional status, role, formality, inequality are judged as under-accommodative more by mothers than by fathers (Jones et al., 2007). These researchers speculate that fathers perceive the interaction to be more intergroup-oriented and seem to be willing to delegate care to providers, whereas mothers regard efficient communication (i.e., accommodative) as collaborative, emphasizing the interpersonal aspects of the interaction rather than the intergroup.

It appears that in interactions where feelings of tension and anxiety seem to be overwhelming, as in palliative care (Janssen & MacLeod, 2010) and neonatal care (Jones et al., 2007), equilibrating interpersonal control may influence patients' image of a caring provider and, thus, affect health outcomes. These studies raise questions about how attempts to equilibrate interpersonal control are explained, interpreted, or assessed by patients and providers of different genders. In addition, the question of how (or why) negative stereotypes

and preconceptions guide patient-provider interactions seems to be a critically missing component in the descriptive studies of Jones et al. (2007) and Janssen and MacLeod (2010). In the intergenerational context, it has been found that providers over-accommodate to their stereotypes of patients rather than converging to patients' individuality, and view them as people with non-realistic hopes who cannot make decisions independently (Baker et al., 2011). Such non-accommodation may result from providers' overemphasis on the assumptions of their professional role and status; however, if downplayed, providers' interaction with patients will be more effective and appropriate (Scholl, Wilson, & Hughes, 2011). This may call for educational programs to ensure that providers do not give into negative assumptions about patients but, instead, account for patients' autonomy and individuality (see Ryan, Meredith, MacLean, & Orange, 1995).

Clearly, as Coupland and Coupland (1994) maintain, providers have a choice as to either reinforce old patients' preconceived biases about their health or help reconstruct their hopes. Two studies sought to investigate the impact of CAT-based educational programs in intergenerational context: one used a CAT-based intervention as a way of improving providers' communication with institutionalized patients (Williams, 2006), and the other used a CAT-based geriatrics/gerontology curriculum as a means of assessing and evaluating medical students' intergenerational interviewing performance (Shue & Arnold, 2009).

The former study reports the immediate impact of an intervention in that (para-professional) providers created a better balanced sense of interpersonal control and behaved more accommodatively in their interactions with older patients after the training (Williams, 2006). However, the study further shows that upon reassessing the interactions after a short (two month) interval, the interpersonal control resumed its former levels. The latter study showed that interpersonal control strategies were among the most optimized intergenerational interviewing skills (Shue & Arnold, 2009), (e.g., expressing interest in patients, showing respect for patients' individuality, and balancing the power dynamics) Nonetheless,

Shue and Arnold (2009) also maintain that certain interviewing skills related to interpersonal control needed to be strengthened, such as directing the communication (e.g., setting communication agenda and maintaining the logical flow of the communication). These studies suggest the need for having constant and consistent education and training with a view to reducing ageist, and downplaying power play, episodes in intergenerational contexts.

In fact, ageist episodes appear to prevail and control patient-provider interaction more than one would like to think and may point to the contrastive interpretations of interpersonal control. For example, older patients, who seem to be cognizant of the asymmetrical nature of their interactions, are more inclined to behave more accommodatively than counter-accommodatively toward their providers (Williams, 2006). And, as Lagacé et al. (2012) speculate, older patients may perceive accommodating to providers' ageist behavior as a way, paradoxically, of equalizing the power dynamics of the encounter. This invites questions about how accurately and critically researchers in patient-provider studies can address the unequivocal perceptions of exerting interpersonal control and how, or to what extent, such perceptions are driven by ageist stereotypes and other preconceived biases.

Additionally, the role-boundedness of patient-provider interactions, regardless of the encounter setting, often creates power differentials that, if not harnessed, can be problematic. Such power differentials may stand out even more in intercultural encounters, especially if patient-centeredness is uncommon in either of the parties' home country. This may raise questions regarding role responsibility and how, or to what extent, it drives foreign-born providers (Van de Poel, Vanagt, Schrimpf, & Gasiorek, 2013), for example, to accommodatively communicate with patients (e.g., allowing shared decision-making and disclosing the appropriate amount of medical information). It can be argued that the extent to which communicative control is supposed to be regulated (e.g., by expressing power or role relations) can demonstrate providers' role responsibility in interactions, which is one of the serious constituents of

interpersonal control (see Gasiorek, Van de Poel, & Blockmans, 2015).

Whatever, unraveling the constituents of interpersonal control in patient-provider interaction (e.g., role, status, power), regardless of which domain of health care is targeted (itself a variable for future work), will require more critical, in-depth sociolinguistic analyses of medical discourse.

4.3. Discourse Management Strategies in Patient-Provider Interaction

Working closely with interpretability and interpersonal control, discourse management is described as the broadest and most central sociolinguistic strategy whereby interlocutors assess, judge, and respond to the conversational needs of their communication partners (Coupland et al., 1988). Within studies of patient-provider interaction (see below), discourse management strategies have been addressed in pain communication, geriatrics, and psychiatry. Generally, these studies signal, though not expressedly state, that providers are better managers of discourse than patients.

In pain communication, a series of experimental studies indicate that patients need providers' support in learning how to manage discourse to communicate their symptoms effectively and that interventions (e.g., a virtual practitioner coach) help patients manage discourse more efficiently (Hehl & McDonald, 2014; Jorge & McDonald, 2011; McDonald et al., 2008; Puia & McDonald, 2014). Further, it has been found that the accommodative use of subtle linguistic features (e.g., question phrasing) or paralinguistic features (e.g., pauses and interruptions) in providers' talk may convey a sense of collaboration and, thereby, enable more patient contributions (McDonald & Fedo, 2009; McDonald, Shea, Rose, & Fedo, 2009).

Linguistic and paralinguistic features of providers' talk may be especially accommodative when they serve a discursive function (e.g., managing the coherence of content) in patient-centered interactions (Hehl & McDonald, 2014). However, in provider-centered discourse, as McDonald and Fedo

(2009) speculate, seemingly innocuous linguistic features (e.g., close-ended questions) or paralinguistic features (e.g., untimely interruptions) may disrupt the process of inquiring medical information.

In pursuit of investigating discursive differences in patient-centered and provider-centered interactions, Hesson, Sarinopoulos, Frankel, and Smith (2012) conducted an interactional sociolinguistic analysis of interviews with simulated new patients (or trained actors). According to their findings, patient-centered discourse facilitates patient contribution (i.e., accommodative) and is considerably different from its provider-centered counterpart in terms of discourse variables, such as silences, turn-allocation, backchannel modulation, speech quality, discourse marker salience, and topic maintenance and topic shift. These researchers maintain that patient-centered discourse permits patients to maintain the conversational floor while, in provider-centered discourse, patients' attempts at the floor may face hinderant interruptions. The results of this study bolster Street's (1991) position that accommodative communicative behavior is more aligned with perceptions of patient-centered care than that of (the more non-accommodative) provider-centered care. However, one important issue that has gone unnoticed in the study by Hesson et al. (2012) is a provider's ability to attend to the needs of patients oftentimes depends largely on the latter's own communication skills.

In psychiatry, one study was found that has highlighted the use of discourse management strategies in providers' interactions with schizophrenics and has as well accounted for their communication profile. The qualitative findings show that, in interactions with less conversant schizophrenics, providers' attempts at accommodative discourse management strategies (e.g., maintaining topics and topic sharing) induced no shared discourse, mainly due to a lack of shared experience with the patients (Cretchley, Gallois, Chenery, & Smith, 2010). Patients' minimal content contribution was characterized by face-concerns (i.e., politeness) and overt silence filling and/or tension-dissipating backchannels (e.g., laughter). The more conversant patients, however, did not seem to attempt

accommodative discourse management strategies (e.g., introducing new topics frequently and shifting topics rapidly). Cretchley et al. (2010) argue that schizophrenics' non-accommodative behaviors in managing discourse may be a form of self-assertion.

4.4. Emotional Expression Strategies in Patient-Provider Interaction

Emotional expression strategies attend to the emotional or relational needs of one's communication partner (Williams, Giles, Coupland, Dalby, & Manasse, 1990). In patient-provider interaction, emotional expression strategies can be manifest in communicative behaviors that indicate providers' attempts at reassuring patients, reducing their tension, anxiety, and despair, and expressing liking, warmth, and care for them (see Watson & Gallois, 1998, 2007). Studies of patient-provider interaction have addressed emotional expression strategies of CAT only infrequently, and have focused merely on how (or when) *providers* express emotions and not patients (see Watson, Angus, Gore, & Farmer, 2015).

Qualitative findings indicate that providers use verbal as well as nonverbal behaviors to reduce patients' negative emotions through empathetic gestures, such as supportive touch, respectful silence, and eye contact. Emotional expression strategies may be used more often when providers disclose unpleasant medical information (Jain & Krieger, 2011). Intriguingly, as with disclosing medical errors, Hannawa (2011) found that providers reduce their emotional expression to a simple statement of sympathy rather than empathy, whereas elsewhere the expression of sympathy has been equated with non-accommodation and ineffective communication (Jones et al., 2007). Further, emotional expression strategies are carried out more through nonverbal behaviors (e.g., smile, touch, and facial pleasantness) with the intent of building affiliative rapport, and may be more intensely expressed toward the end of the encounter, potentially with the additional intent of preventing patient's negative post-interaction rumination (Hannawa, 2011).

Given the importance of, yet inattention to, nonverbal communication in patient-provider interactions (Finset, 2007; Giles & Wadleigh, 2008; Mast, 2007), D'Agostino and Bylund (2011) sought to apply and evaluate their CAT-based Nonverbal Accommodation Analysis System (NAAS). Although valuable, their NAAS item content appears to disregard behavior categories that connect with emotional expression strategies, and merely include those of approximation, interpretability, interpersonal control, and discourse management. The reason for this may lie in their drawing the initial item content from an earlier CAT coding system (see Jones et al., 1999). Clearly, further CAT-based research on the strategic impacts of verbal and nonverbal emotional expression on patient-provider interaction are warranted as are their influence on shaping the 'cycle of care' over the entire life of it (Pendleton, 1983).

5. Concluding Remarks

The major findings of this analytical review are five-fold: (1) Both parties have problems approximating each other; (2) Both parties attempt to account for the other's knowledge and disposition; (3) A struggle for control is evident, mainly from the provider's side of the interaction; (4) Providers are better managers of discourse than patients; and (5) How or when providers express emotions has been the primary research focus, and not those of patients.

Thus far, CAT-driven studies of patient-provider interaction have focused mostly on intergenerational contexts. Accommodating to elderly populations, with an assurance of effective health care delivery (Sparks & Balazs, 1997; Williams et al., 1990), commences with directing providers' attention to intergenerational differences. In fact, in intergenerational contexts, patients need "an especially supportive and stimulating interpersonal environment" (Ryan et al., 1995, p. 69). In that spirit, awareness of existing intergroup differences and the use of sociolinguistic strategies to accommodate older patients —psychologically and linguistically— may be raised to conscious awareness, at the very core of which is the creation of an equilibrium in role relations.

In stressful and distressing medical settings - either for provider or patient - such as oncology, neonatal care, communication disabilities, and hospice care, CAT's sociolinguistic strategies can come into play by: conveying a sense of collaboration (e.g., shared decision-making); respecting the other's communication style, level of autonomy, and individuality; creating a filled-with-trust atmosphere (e.g., equality, role responsibility etc.); and downplaying tension, anxiety, and other negative emotions; in sum, they prepare the foundations for efficient communication to materialize.

We contend that the sociolinguistic strategies of CAT, together with its social psychological parameters, can provide insightful clues for providers (*and* patients) regarding what to 'do' communicatively when, why, and where. In patient-provider interaction, it is very important for providers to attentively appeal to patients' needs, desires, and wishes in order to build rapport and support the latter's health narrative (see Angus, Watson, Smith, Gallois, & Wiles, 2012). This requires providers to actively listen to patients, give them proper immediate feedback, and use harmonized verbal and nonverbal channels of communication.

It is also important to note that patients do not merely go to doctors with their symptoms, but with ideas, concerns, and expectations about them (Pendleton, 1983). Thus, there is a need for providers to make their technical expertise commensurate with their communicative competence. Indeed, this skilled-based trait is not a predetermined or fixed component of personality and can be learned through training courses and practice (see Pitts & Harwood, 2015). However, accommodating to patients' individuality, communication style, and personal preferences in patient-centered discourse may be challenging, especially when the patient-provider interaction is set in intercultural or language-discordant settings (see Watson et al., 2012, 2015).

CAT is a productive approach to understanding the linguistic as well as socio-psychological aspects of patient-provider interactions in that it: (1) addresses current criticisms of the *a*-theoretical nature of patient-provider research in that it provides a dynamic theoretical framework that helps determine and unpack the interpersonal *and* intergroup aspects of patient-provider interaction; (2) respects the mutuality of the interaction flow and accounts for both providers' and patients' contributions—verbal and nonverbal—to the interaction; and (3) reflects the basic assumption that in patient-provider interactions communication serves the dual function of serving instrumental (i.e., information exchange) as well as relational functions of interactions.

Further questions, as ever, abound. Are providers in certain medical fields better accommodators than colleagues in other different fields? Or are providers better accommodators than patients? Further, are patients with certain health issues better accommodators than other patients? In general, when are patients and providers non-accommodators? Programmatically tackling these vistas will, in turn, further highlight the translational nature of CAT and, doubtless, will help refine its principles and parameters yet further (see Giles, 2008). Lastly, we hope that this position-piece enthuses scholars and readers in this respectable arena to look upon CAT as an important framework for practitioners already as well as useful in guiding research in the Middle East and elsewhere.

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