

Research Article

Incorporating ‘Effort’ into Communication Models: An Exploratory Study

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This paper proposes that *effort* must be taken into account in both theorization and assessments of communication and, accordingly, offers an exploratory consideration of effort in communication encounters. As a subjective element of communication, operationalizing effort in communication encounters is very difficult. As a result, there has been very little research taking up effort as a factor in communication. The present research proposes that effort be viewed in communication as one element to be contrasted with others. In this research, effort is cast as one of four communication encounter success factors, along with topic knowledge, communication skill and comfortable communication. As a means of preliminarily testing the proposition, research participants were asked to assess these four factors—effort, knowledge, skill and cordiality—both for themselves and for the other in their communication interaction and as reflective of success in a professional communication encounter (or not) or satisfaction with a personal communication encounter (or not). The research tentatively points toward effort as a meaningful construct in interpersonal communication studies, with indication of several identifiable patterns. However, as preliminary research, the paper concludes by noting that the concepts must be more clearly delineated and the methodology and tools more robustly designed.

Introduction

This paper asserts that *effort* must be taken into account in both theorization and assessments of communication and reports on an exploratory study of participant assessment of Communicative Effort in communication encounters. Effort, despite its apparent intuitiveness and the fact that most people are readily able to subjectively perceive, assess, and articulate effort either when they

themselves are employing it or when others do the same, is quite difficult to objectively define, much less critically assess (Steele, 2020). Defining effort, Oxford and Cambridge English dictionaries offer dimensions such as *vigor* and *determination*, along with references to *trying to* and *attempting at*, as well as and in the best case, ultimately *achieving something*. Massin (2017) outlined a general definition for effort, including such plainly self-evident details as *efforts are actions*, *efforts are made with an intention to reach some goal*, *efforts can succeed as well as fail*, and *efforts are in some cases exerted against some resistance*. And while there are objective, if not quantitative as well as quantifiable measures of manifest effort required or exerted as in the case of scientific and numerical measurements, the concern here, in the perception of human effort that is brought to task performance and both on the part of oneself as a communicator as well as the other as a mutual communicator, makes the task of assessment highly subjective.

While communication research has generated much in the way of analyzing communicative interaction, little research has been undertaken regarding specific assessment by participating communicators of Communicative Effort, furthermore when considered in relation to communication encounter success or satisfaction. To this end, the present research outlines and offers an exploratory exercise to develop and test participant self-reports on communication encounters which subjectively assess both their own communicative effort and the communicative effort they perceive being brought by the other, in relation to both other communicative encounter factors and encounter satisfaction/success or disappointment/failure. The objectives of this research are first, to introduce the idea of Communicative Effort as a construct in communication research and contextualize its potential explanatory value. The second objective is accordingly to develop a means of assessing Communicative Effort in communication encounters.

Theoretical Starting Points to Study Effort in Communication

An initial difficulty in undertaking the present research on Communicative Effort in communication encounters is lack of a theoretical starting point. While there is no guiding research, major streams of Communication Studies do provide conceptual hints and organizing guideposts. In terms of positioning Communicative Effort within a reasonably transparent model that is amenable to assessment by participants, it is necessary both to capture the essential elements of communication's theoretical anchors while also operationalizing their complexity and ensuring coverage and compatibility in some form of a self-assessment tool.

As a starting point, communication scholars have identified six dimensions of a Communication Styles Inventory (CSI): expressiveness, preciseness, verbal aggressiveness, questioningness, emotionality and impression manipulateness (de Vries et al., 2011). Although several of these dimensions relate to communicative effort in some indirect way (e.g. there is effort inherent in being expressive, precise, and questioning), with its focus on 'communication style' as a personality-type construct as opposed to an operational, action-based check-list, the CSI does little to capture specific behaviors that emerge within a communication encounter, much less participant effort in an actual communication encounter. Furthermore, the CSI dimensions also do little to effectively capture the positive or negative implications of the 'effort' that they might illuminate: all the dimensions require effort, but expressiveness, preciseness and questioningness would usually be viewed positively, as contributing to a successful outcome, whereas verbal aggressiveness, emotionality and impression manipulateness, while also requiring 'effort,' would largely be viewed negatively. The point begin that measures of effort must extend beyond recognition of simply an effort being made that is manifest in any one of these dimensions, but in addition must capture the endpoint of effort in communication; recognition of effort's contribution to either communication encounter success or, in some aspect, failure.

Taking up another example from general communication research, the collaborative model of dialogue, seen as one of the most important approaches to modeling communication (Healey, 2000), uses the notion of 'common ground' in accounting for interactive communicative processes. The collaborative model is based on the assumption that parties to an interaction only consider an utterance (or other communicative act) to have been added to the mutual common ground when some evidence for the contribution has been obtained. Implicit in this assumption is a more self-serving attitudinal intentionality that parties to an interaction only make such utterances or acts when they assume the acts will both contribute to the mutual common ground and be perceived by the other as contributing to the common ground. The forms and patterns of such contributions are, first, generally characterized by acts which seek to reduce the joint (as opposed to individual) effort necessary to ground and proceed in a communicative act and, second, guided by an understanding that the specific criteria by which such contributions will be judged are subject to the circumstances of the communicative interaction (Clark, 1996). In an ideal case, this creates both the attitude and incentive to collaborate and provides ongoing evidence of the positive effect of such collaborative effort within the encounter. As a research model, the collaborative model (and its conceptual, if not operational

partner, conversation analysis, which includes elements of failure and repair) also provide potential indices that can contribute to research on communication effort: the relative difficulty of the interaction, and, defining the common ground, the collaborative effort invested in sustaining mutual-intelligibility, the transparency of the interaction and the degree of communicative coherence. Thus, although communication style, attitude and intentionality are fundamental factors leading to Communicative Effort, an operational definition for Communicative Effort for the purposes of the research herein must translate these to a recognizable attribute, such as a determination to try to communicate toward mutual satisfaction or objective success. Thus, as will be outlined in the following section, between these models, one can develop a suitable set of ‘effort in communication’ criteria for the present research purposes.

While there is little previous research relating directly to assessments of effort in communicative interactions, recent research does indirectly reflect recognition of a behavioral, and to some degree justifiable, explanation for effort and lack thereof on the part of some interlocutors. Craycraft et al. (2016) focused research on lack of effort as a response behavior in miscommunication. Starting from the premise that a listener has two options when encountering ambiguous speech—increase effort toward comprehension or dismiss the communication encounter on the basis of assumed speaker laziness—the research found that if the speaker is perceived to be lazy, the listener will reciprocate, by being lazy themselves. While focused in particular on speaker reliability and various effects of communicative feedback in response to problematic aspects of ambiguity, the research clearly concludes that, in the realm of communication, effort is rewarded with effort and laziness (or lack of effort) with laziness.

Research on natural language use also contributes to our understanding of effort in communication. Fedzechkina, Newport and Jaeger (2016) outlined research that sought to explain why some grammatical patterns are used more commonly than others to a degree more than can be explained by chance, concluding that there is a bias by speakers to balance informativity in the form of specific grammatical formulations and the effort required of such language production. Based on analysis of post-instructional use of an artificial language, the research showed that learners’ language use preferences suggest that there is a calculated balance at work between producing robust information and the effort required in doing so during language use. This means speakers are aware of the effort profile that accompanies different patterns of language. Confirming this even at the word level, Piantadosi, Tily and Gibson (2011) and Koplenig, et al. (2017) demonstrated across languages

that vocabulary and its efficiency in conveying information direct the ways in which words are selected and word orders are structured, thereby broadly confirming rationalization theories of communication strategy. While not a primary objective of either set of research, these two examples do show that effort is a relevant element in communication research, particularly in terms of success or failure of the communicative encounter.

Given that the research herein originates in a strictly Asian setting, the notion of ‘mindfulness’ may be seen as relevant. The idea is taken from Buddhism, with mindfulness defined as relating to the qualities of reflexivity, openness, multi-perspectivity, analytical empathy and creativity in intercultural communication (Ting-Toomey & Kurogi, 1998). Mindfulness may be the Asian notion of common ground outlined above, as both reflect an assumption that acts that contribute to a mutual common will reduce effort and enhance communication. As for Japanese communication specifically, Markova (2011) summarizes the social dimension of communication as highly dependent on social and situational contexts, where the speaker communicates in such a way as to take the expectations of the partner into consideration through relation-oriented communication rather than adopting a purpose orientation. Suffice it to say, the particular characteristics of Japanese communication should be assumed to be a given between Japanese communicators, with the question at hand specifically relating to one’s assessment of one’s own effort and the effort of the other in operationalizing these dimensions and patterns in real time communication encounters.

The lack of both explicit theorization of effort in communication in general communication encounters as well as lack of a tool by which to account for it has been noted. Research on adult cochlear implant users does, however, provide justification for such general research as well as further hints for how to proceed. Hughes et al. (2018) noted both that individuals with hearing loss often report a need for increased effort when listening and that there were at the time of the research no standardized clinical measures for assessing listening effort. In an effort to address both the need for such a tool, the qualitative study explored the perceptions, understanding, and experiences of listening effort in adults with sensorineural hearing loss. Based on the data, in the form of verbatim transcripts of focus group proceedings and qualitative analysis using constructivist grounded theory methodology, the research identified listening effort as a multidimensional phenomenon for which the core constructs important to participants’ experience and understanding were social connectedness and effort-reward balance.

While the research above is wide-ranging, multi-dimensional and in some ways relevant to the present research aims, there is little that contributes directly to an operational and self-analytical set of parameters that will allow a participant to assess the degree or character of effort—both their own and that of the other and incorporating success or failure—that is brought to a communicative encounter. As will be outlined below, the present research therefore views this background literature as contributing to the larger context of the research, while the specific elements of the assessment tool developed originally herein.

A Preliminary Assessment Tool

The present research represents an attempt to develop a preliminary assessment tool, an approach to capturing Communicative Effort through a self-assessment instrument which allows participants to self-assess effort in combination with other relevant factors, implying a combinative view of effort that includes in total: effort, knowledge, skill and cordiality. As participants were required, the research was presented and described as research on these four factors related to personal and professional communication satisfaction/success, with no emphasis specifically on effort. Participants were provided the self-report survey sheets and given three weeks in which to consider communication encounters—both personal and professional—and to judge the success/satisfaction of these encounters.

An example provided of a personal communication encounter was talking with friends or parents about school life or plans for the future; there would be some level of information exchange, if only in offering and responding to individual opinions, and there could be some element of anticipation or expectation, as in parents inquiring about grades or successful completion of study, for example. The outcome assessment for such a communication encounter would likely be judged less by an outcome than on some 'satisfactory' nature of the overall event, hence the assessment as satisfactory or not. The description of a professional communication encounter that was provided highlighted the idea of success, as there would likely be some discernable objective and outcome in a professional communication encounter. Assessment was obtained through a figure-format reporting sheet on which respondents could indicate the specific nature of the communication encounter along with their subjective evaluation of the contributions of Topic Knowledge, Communication Skill, Comfortable Communication, and Communication Effort, both on the part of the respondent (*myself*) and the co-communicator (*the other*), to the positive or negative assessment of the encounter and depict these

relationships on a four-level scaled figure. The four factors were explained on equal terms, each with examples and in Japanese and the instrument was in Japanese (see Appendix for an English sample of the Assessment Sheet).

As outlined in the previous section, there is little previous research to work from and the theoretical models, while useful in indicating potentially meaningful parameters, neither capture communicative effort specifically nor position it as one element among others in an appropriate yet participant accessible form. With that in mind, the somewhat cumbersome six-element Communication Styles Inventory (CSI), the abstract nature of common ground in the collaborative model of dialogue/ conversation analysis, the recognition of calculated effort versus perceived laziness in the research on natural language use, and the applied, but qualitative approach by the hearing loss research group were combinatively recast in a comprehensive, but accessible four-criteria self-assessment survey based on Topic Knowledge (TK), Communication Skill (CS), Comfortable Communication (CC), and Communication Effort (CE) as outlined below (Table 1):

Theoretical Background: CSI / Collaborative Model / Calculated Effort / Hearing Loss factors	Recast relative <i>To communicative effort</i>	Present research criteria
interaction difficulty: preciseness: effort- reward balance	knowledge or information inequality: an outcome	Topic Knowledge
coherence & transparency: expressiveness, questioning	communication skill for both self and other	Communication Skill
transparency vs. aggressiveness: impression manipulation: social connectedness	being cordial versus being adversarial	Comfortable Communication
collaborative effort toward mutual-intelligibility; effort-reward balance	the <i>effort</i> applied to understanding and being understood	Communication Effort

Table 1. Communication Models in the Present Research

Topic Knowledge, as the term implies, concerns knowledge of the topic or information levels relevant to the communication encounter, thus reflecting the relative, if not inherent difficulty of the interaction. There is an assumption that in many communication acts, but particularly so in professional communication, the level of topic knowledge and/or information between participants is not equal. The inherent difficulty of professional interaction, along with an inequality in topic knowledge or information, thus demand preciseness in the communication. Communication Skill as a factor represents the degree to which participants reflect or use effective communication practices. The theoretical models introduced herein include such elements as expressiveness, effective use of questions, and creating a communication structure, aspects of communication that reflect an intuitive understanding of communication for the uninitiated on the one hand, but also reflect skills training that can come with some professions on the other. The Comfortable Communication assessment

concerns the cordiality of the communication, asking the informant to indicate whether the communication encounter was generally relaxed and cordial or, on the other hand, tense and adversarial. Here as well transparency is important, as both must agree on the objective and 'rules' of the interaction, together with such other factors as verbal aggressiveness, impression manipulation and (either excessive or insufficient) emotional characteristics. And finally, the focus of the research, Communication Effort, is a measure of the collaborative effort that the informant perceives is being applied to the communication, effort toward mutual-intelligibility that is brought by the respondent as well as the other.

As for how these different dimensions are judged by the informant, there are many particular, but highly relevant points to note. First of all, as above, it may be the case that personal communication is viewed in terms of being an experience rather than an outcome, and therefore personal communication is judged on the basis of being satisfactory or unsatisfactory rather than as successful or unsuccessful, in contrast to concrete outcomes usually associated with professional communication. Furthermore, it can also be assumed that personal communication will be relatively 'soft,' with both participants usually seeking cordiality through transparency and positive emotionality, resulting in mutually high levels indicated on the Comfortable Communication scale for both partners of the communication, regardless of differences in Topic Knowledge and Communication Skill. Conversely, it can be assumed that professional communication—generally with concrete and objective outcomes that can be judged as successful or not—will be 'hard,' with participants indicating simultaneously differing levels of Topic Knowledge on the part of both participants (*myself and the other*) and lower levels of Comfortable Communication for each. It can also be assumed that the respondent's assessment on his or her own Communication Skill will be consistent across both personal and professional encounters and across multiple reports, whether high or low, with assessment of the Communication Skill of the other participant possibly quite variable. Finally, it can be assumed that assessment of Communication Effort on the part of the respondent will be based in an honest reflection of their effort, a reflection of how important a successful outcome was to them. Similarly, it can be assumed that with the admonition to judge neutrally, the respondent assessment of the Communication Effort on the part of the other participant will reflect their effort towards a successful outcome of the communication encounter.

In such a four-component assessment, successful and satisfactory communication encounters, and the opposites, can be anticipated as *Ideal Types*, with either all four factors judged for both

participants as 'high' or 'low,' accordingly. Which is to say, there is a safe assumption that if all four factors are judged 'high' for both oneself and the other, the communication encounter will likely to be successful or satisfactory. This is predicated on the idea that it is the communication that is being assessed as successful or satisfactory versus not, rather than the outcome. Of course, a professional encounter can be viewed as successful solely on the basis of an objective outcome, whether relating to information or some tangible outcome, despite a communicative assessment reflecting less than ideal topical knowledge mutuality, use of communication skills, a feeling of mutual cordiality, or the level of effort apparent in the encounter. On the other hand, if all four factors are judged 'low' for both oneself and the other, the communication encounter will likely be viewed neither successful nor satisfactory. If the assessment, although subjective both for self and the other, yields a sense of low mutual topic knowledge as outcome, low evidence of communication skill in use, an uncomfortable environment or communicative effort, then the encounter will likely be viewed negatively and assessed as unsuccessful or unsatisfactory. However, it is in the various combinations of 'effort' with the other factors that characterizations of Communicative Effort and its relationship both with other factors as well as with success or failure should emerge. Communication Effort can be logically seen as contributing positively, or conversely negatively, to Topic Knowledge and Communication Skill. In a positive outcome (success or satisfaction), high effort can be assumed as either contributing to better knowledge exchange and better communication on the positive side or overcoming a lack of topic knowledge or communication skill if these are viewed negatively. The latter case would result in a combination of success or satisfaction, countered by moderate or low knowledge and communication, which is then countered by high effort. Countering this, in a negative outcome (no success or satisfaction), lack of effort can be assumed as either contributing to lack of knowledge transfer and less-than-ideal communication skill or not overcoming a lack in either. The combination here would be low success or satisfaction, low knowledge and skill, with a low effort assessment indicating that no effort was made to address these dimensions. Similarly, effort can be viewed as contributing either positively or negatively to Comfortable Communication, as effort (or lack of) is likely to contribute to a more friendly (or less friendly) encounter. The final point to note is that the assessment ideally will reflect the levels of effort for both participants; low effort on the part of the other indicates that they are neither contributing to building on a competency, skill base, and a congenial interaction nor working to recognize and address deficiencies in competency, communication skill or a tense encounter. Likewise, but for one's self, assessment of one's own effort as lacking indicates admission that you did not extend effort in any one of the combinations.

My profile	The other's profile	Probable Outcome
All high	All high	Success: mutual effort
All low	All low	Failure: mutual lack
All high	All low	Failure: other's lack
All low	All high	Failure: my lack
Variation: Focus on Effort		
CE high	CE high	Probable success
CE low	CE low	Probable failure
CE high	CE low	Variable outcome
CE low	CE high	Variable outcome

Table 2. Communication Effort: Ideal Types for TK, CS, CC, CE*

* TK: Topic Knowledge; CS: Communication Skill;

CC: Comfortable Communication; CE: Communication Effort

Preliminary Results

A total of 24 respondents voluntarily participated in the research. The participants were university students, second to fourth year, at a national university in Japan. Explanation of the research was provided in Japanese, after which survey sheets in Japanese were distributed with instructions on how to use them and advice on how to identify communication encounters and examples of the researcher's assessments. Use of the survey sheets is relatively transparent: the appropriate survey sheet—whether PROFESSIONAL or PERSONAL is selected for the communication encounter, with a

space for descriptive details provided. A four-level success-failure report is provided, after which the participant indicates the degree to which the four components—topic knowledge, communication skill, communication effort and comfortable communication—contributed to that success or failure, indicating it as a point on the appropriate axis for oneself and the other. As shown in Table 3, 42 communication encounters were identified and analyzed by the respondents, of which 18 were ‘personal,’ with 12 deemed satisfactory and six not satisfactory, and 24 were ‘professional,’ with 14 deemed successful and 10 not successful. The most common personal communication encounters were about information sharing and/or persuasion with either a family member (parent) or friends. The most common professional communication encounters were either a part-time job-related negotiation or information-related communication in a purchase encounter.

Respondents: 24	Surveys Total: 42
Personal – Satisfied	12
Personal – Not satisfied	6
Professional- Successful	14
Professional – Not successful	10

Table 3. Respondent Data

Communication Encounter Profiles

Tables 4-1 to 4-4 show the combinations of responses for the four ideal patterns (*personal-satisfied*, *personal-not satisfied*, *professional-successful*, and *professional-not successful*). The patterns reflect the assessments for *myself* (My Profile) and *the other* (The Other’s Profile) as specific to each case. Note that for the positive outcomes, the patterns shown are indicative of what respondents saw as positively contributing factors, thus the data highlights ‘high-rated’ factors: judged as two high ratings out of the four for the factor. Conversely, for the negative outcomes, the responses were aimed at identifying what respondents assessed as negatively contributing factors, and thus the data highlights ‘low-rated’ factors. The factors are provided as CE: Communication Effort; TK: Topic Knowledge; CS: Communication Skill; and CC: Comfortable Communication. Thus, for any category of

communication encounter (personal-satisfied), the data indicate what the respondent considered to be a positive (or negative) determinant on his or her part as well as by the other in the combined pattern shown for the specific case.

For the *Personal-Satisfied* cases, Communicative Effort is cited as a contributing factor for 17 out of 24 cases (12 each for My Profile and The Other's Profile), equally spread between 'myself' and 'the other.' The other notable factor is Comfortable Communication, particularly for 'the other,' where it is cited for ten out of 12 cases.

	My Profile	The Other's Profile
1.	CE	CE
2.	CE	CE + TK + CS + CC
3.	CE + CS	CE + TK
4.	CE + CC	CE + CC
5.	CE + CS + CC	CE + TK + CS + CC
6.	TK + CS	CE + CC
7.	TK + CC	CE + CC
8.	CE + CS + CC	TK + CS + CC
9.	CE + TK + CS + CC	TK + CS + CC
10.	CE + TK + CS + CC	CE + CS + CC
11.	No HIGH (all MED/LOW)	CE + CS + CC
12.	No HIGH (all MED/LOW)	CE + TK + CS + CC

Table 4-1. Personal-Satisfied: Factors Rated High (N=12)

Note: High = top two points indicated out of 4

For the *Personal-Unsatisfied* cases, the two factors that seem to stand out are, first, a self-assessed lack of Communicative Effort by 'myself,' in four out of six cases, and second, lack of Comfortable

Communication as a part of the communication encounter, on the part of ‘the other,’ also in four out of six cases.

	My Profile	The Other’s Profile
1.	CE + TK	TK + CC
2.	TK	No LOW (all MED/HIGH)
3.	No LOW (all MED/HIGH)	CC
4.	CE + TK + CS + CC	No LOW (all MED/HIGH)
5.	CE + CS	CC
6.	CE + CC	CE + CC

Table 4-2. Personal–Unsatisfied: Factors Rated Low (N=6)

Note: Low = bottom two points indicated out of 4

For the *Professional–Successful* cases, Communicative Effort is cited as a contributing factor for 23 out of 28 cases, equally spread between ‘myself’ and ‘the other.’ The other notable factor is Topic Knowledge, particularly for ‘the other,’ where it is cited for 12 out of 14 cases. The assessments also show that Communication Skill and Comfortable Communication were factors seen as influencing the communication by informants.

	My Profile	The Other's Profile
1.	CE	CE + TK + CS + CC
2.	CE	CE + TK + CS
3.	CE + CC	CE + TK + CS + CC
4.	CS + CC	CE + TK
5.	CS + CC	CE + TK + CC
6.	CS + CC	CE + TK + CC
7.	CE + CS	CE + TK + CC
8.	CE + CS + CC	CE + TK
9.	CE + TK + CS	CE + TK + CS
10.	TK	CE
11.	CE + TK + CS + CC	CE + TK
12.	CE + TK + CS + CC	TK + CS + CC
13.	CE + TK + CS + CC	CE + CS + CC
14.	CE + TK + CS + CC	CE + TK + CS + CC

Table 4-3. Professional-Successful: Factors Rated High

Note: High = top two points indicated out of 4

For the *Professional-Unsuccessful* cases, the two factors that seem to stand out are a self-assessed lack of Topic Knowledge for 'myself,' in eight out of ten cases, and a lack of Comfortable Communication, assessed on both sides.

	My Profile	The Other's Profile
1.	TK + CC	CE + CC
2.	TK + CC	CE + CS + CC
3.	CE + TK + CC	No LOW (all MED/HIGH)
4.	TK + CC	No LOW (all MED/HIGH)
5.	CE + CS + CC	CE + TK + CS + CC
6.	TK + CS + CC	No LOW (all MED/HIGH)
7.	CE + TK + CC	TK + CS + CC
8.	No LOW (all MED/HIGH)	CE
9.	CE + TK + CC	CC
10.	TK + CS	CE + CC

Table 4-4. Professional -Unsuccessful: Factors Rated Low

Note: Low = bottom two points indicated out of 4

Communication Encounter Patterns

As shown in Table 5, there were three dominant patterns in which Communicative Effort can be analyzed: *Personal + Satisfied*; *Professional + Successful*; *Professional + Not Successful*. For the *satisfied / successful* encounters, the Effort characterizations were deemed high for both participants, with Topic Knowledge also high for the professional encounter and with other variables distributed across levels high to low. For the *non-successful professional* encounters, Communication Effort was viewed for oneself as variable, with Topic Knowledge and Communication Comfort being deemed mid to low, and Effort on the part of the communication encounter partner as mid to low.

	CE Self-Assessment	CE Assessment of Other	Other Variables
Pattern 1: Personal + Satisfied	High	High	CC important for both
Pattern 2: Professional + Successful	High	High	CS, CC for Self TK for Other
Pattern 3: Professional + Not Successful	Variable	Variable	Low TK + CC for Self

Table 5. Pattern Types

Pattern 1 and Pattern 2 represent the Ideal Type patterns as outlined in the discussion above. In each encounter, one based on a personal basis and one on a professional basis, with high Communication Effort assessments for both self and the other, the outcomes are positive, as satisfied and successful. Noteworthy is the addition of a high assessment for Topic Knowledge on the part of the other, understandably a contributing factor in a professional encounter. The third pattern also fit an Ideal Type, in that in a professional encounter, a mid to low Communication Effort assessment for the other will likely lead to a less than completely successful outcome, particularly but not exclusively when one's own effort may not be high. The contributing factors in this case are Topic Knowledge and Comfortable Communication on the part of self.

Remarks by informants

Although not a part of the research methodology by design, the close proximity of informants allowed for feedback after completion of the assessments. As the research introduced in the opening of the paper noted, Ting-Toomey & Kurogi (1998) and Markova (2011) identified notable patterns in Japanese communication: reflexivity, openness, multi-perspectivity, analytical empathy and

creativity in the broader notion of mindfulness, and high dependence on social and situational contexts, where speakers communicate in such a way as to take the expectations of the partner into consideration through relation-oriented communication as a take-for-granted premise of communicative interaction. It was also noted that these characteristics match and align to some degree with the positive dimensions of the Communication Styles Inventory and the collaborative model of dialogue. Comments by the informants seem to indirectly confirm these communicative generalizations on the one hand, and while in so doing, highlighting a fundamental difficulty in research on Communicative Effort on the other. Effort was initially viewed as a given by the informants, with many of the comments offered opening through articulation of notions of effort in communication as obvious, a priori, something that did not need to be recognized as distinct in the fundamentals of communication—the objectives and directions of the research notwithstanding. This may account for the high degree to which Communicative Effort was cited in successful and satisfactory communication encounters: most communication is relatively successful and, as such, effort was viewed as a given in such encounters. However, and with that side of the argument in mind, the fact that Communication Effort was then also cited in unsuccessful professional encounters can only be explained by omission; that a lack of effort was recognized and noted by informants as a dimension in the unsuccessful communication. As will be further discussed in the next section, this may point to the fact that Communication Effort may be a dimension of communication that is most apparent only when it is absent.

Concluding Remarks

The research herein is exploratory in nature and thus aims for preliminary objectives. Exploratory research investigates a subject which is not clearly defined by an existing literature nor for which there exists an established research methodology. While primary research constitutes an essential element of exploratory research, often in an effort to begin to develop the foundational base, such research is often initially limited in thematic scope and quantifiable extent. With this background in mind, a primary objective at this first stage of the present research was to establish Communicative Effort as an explanatory construct in analyzing communication encounters. As such, a primary focus is on whether communicators recognize communicative effort and the degree to which a participant in a communicative encounter can assess such effort in a meaningful manner. A second, and obviously related objective, is development of a research tool by which Communicative Effort can be assessed.

However, rather than assessing Communicative Effort in isolation, the present approach to assessment includes the associated communicative factors that can contribute to or take away from success and satisfaction in both personal and professional encounters. To this end, topic knowledge, communication skill and a setting of comfortable communication are considered in the assessment tool as well.

The research points tentatively to a recognition on the part of participants in communicative interactions that effort is a salient element of that communication, particularly when assessing why a communication encounter was satisfying or successful, and in some cases, why it wasn't. In addition, the research suggests that there is recognition of the influence of topic knowledge and having a comfortable communicative exchange, in ways both positive as well as negative. In looking at the assessment responses, it became clear that there are certain combinations of the four factors that emerge with either success or failure. Perhaps the most notable of such combinations is the *Communication Effort–Topic Knowledge* combination in professional-successful communication, pointing to what can be seen as a responsibility factor on the part of professionals (as opposed to presumably uniformed participants) in professional encounters. Certainly, this is not the first time such a notion regarding professional communication has been offered; but the inclusion of effort in combination with specialized knowledge is a notable contribution. Another notable combination is the *Communication Effort–Comfortable Communication* combination, specifically for the other, in satisfactory personal communication. This also seems to point toward the respondents in this preliminary research as seeing the other as having more responsibility for successful and satisfactory outcomes, which however may be a pattern exhibited by university students as opposed to adults.

However, positive assessments are often less telling than negative ones. Even at this exploratory level of research, it may appear to be the case in this research as well. While the number of unsatisfactory and unsuccessful cases examined was fewer than for those satisfactory and successful, in the case for unsuccessful professional communication encounters, assessments of a negative influence of Communication Effort could be discerned. While expectations regarding effort as an essential, if not pre-determined dimension in interpersonal communication, whether personal or professional, may be highly characteristic of Asian/Japanese communication consciousness, if not for all communicators, offers an explanation for why it was highly noted in the positive encounters, the fact it was also noted by omission in the negative cases may be telling. Communicative Effort, while possibly notable when it is a clear dimension in overcoming some limitation in the encounter and

leading to a positive outcome, may be more of a factor in negative encounters, where the lack of effort taints the communication and contributes to subverting the outcome. In other words, Communication Effort as a communication construct may be notable only in its absence in communication encounters. It may be that communication effort is a fundamental and assumed dimension of communication, one that no one has thought to isolate and examine extensively precisely because of that reality. However, when offered as an explanatory variable in communication that is not successful, or possibly not satisfactory, Communicative Effort becomes more apparent as a dimension of that failure.

The limitations of the present research are clear: the concepts are preliminary, the assessment tool simplistic and the conclusions general. As the research in this paper is exploratory both in its objective as well as methodology, further research in this area must seek to refine both assessment concepts as well as the assessment tool. As noted, effort is a difficult concept to define, much less operationalize for this type of research. Further conceptual refinements that are needed would be to more consider and more concretely define the three additional factors that the survey sought to view in combination with effort and to better isolate effort both from other constructs but also with regard to communication encounter outcome as either positive or negative. In terms of the survey instrument, refinement needs to yield better assessment of the overlap and interaction between the factors, communicative effort and comfortable communication in particular, and communication skill more generally. As this represents one of the first academic endeavors to attempt to isolate effort in communication encounters, the contents, findings and conclusions represent the starting points of this research.

References

- Clark, H. H. (1996). *Using Language*. Cambridge: Cambridge University Press.
- Craycraft, N., Kriegel, Z., Tanenhaus, M. K., & Roche, J. (2016). Tit-for-Tat: Effects of Feedback and Speaker Reliability on Listener Comprehension Effort. *Annual Meeting of the Cognitive Science Society 2016*. Retrieved on 17 March 2021 from <https://oaks.kent.edu/ugresearch/2016/2016all/37>.
- de Vries, R. E., Bakker-Pieper, A., Konings, F. E., & Schouten, B., (2011). The Communication Styles Inventory (CSI): A Six-Dimensional Behavioral Model of Communication Styles and Its Relation to Personality. *Communication Research*, 40(4), 506-532.
- Fedzechkina, M., Newport, E. L., & Jaeger, T. F. (2016). Balancing Effort and Information Transmission During Language Acquisition: Evidence from Word Order and Case Marking.

- Cognitive Science*, 41, 416–446. Retrieved on 17 March 2021 from <https://onlinelibrary.wiley.com/doi/full/10.1111/cogs.12346>
- Healey, P. (1999). Accounting for Communication: Estimating Effort, Transparency and Coherence. AAAI Technical Report FS-99-03. Retrieved on 17 March 2021 from <https://www.aaai.org/Papers/Symposia/Fall/1999/FS-99-03/FS99-03-008.pdf>
 - Hughes, S.E., Hutchings, H., Rapport, F.L., McMahon, C., & Boisvert, I. (2018). Social connectedness and perceived listening effort in adult cochlear implant users: A grounded theory to establish content validity for a new patient-reported outcome measure. *Ear and Hearing*, 39(5), 922–934.
 - Koplenig, A., Meyer, P., Wolfer, S., & Muller-Spitzer, C. (2017). The statistical trade-off between word order and word structure: Large-scale evidence for the principle of least effort. *PLoS ONE*, 12(3), e0173614. <https://doi.org/10.1371/journal.pone.0173614>.
 - Markova, V. (2011). A Japanese Communication Style: A Review of Research Literature. *Studia Orientalia Slovaca*, 10(1), 213–221. Retrieved on 17 March 2021 from https://fphil.uniba.sk/fileadmin/fif/katedry_pracoviska/kvas/SOS_10_1/11_40markova-form120131_Kopie.pdf
 - Massin, O. (2017). Towards a definition of efforts. *Motivation Science* 3(3), 230–259. Retrieved on 17 March 2021 from <https://philpapers.org/rec/MASTAD-2>
 - Piantadosi, S.T., Tily, H. & Gibson, E. (2011). Word lengths are optimized for efficient communication. *Proceedings of the National Academy of Sciences of the United States of America*, 108(9), 3526–3529. <https://doi.org/10.1073/pnas.1012551108>
 - Steele, J. (2020). What is (perception of) effort? Objective and subjective effort during task performance. *PsyArXiv* 6th June 2020. Retrieved on 17 March 2021 from <https://psyarxiv.com/kbyhm>
 - Ting-Toomey, S. & Kurogi, A. (1998). Facework competence in intercultural conflict: An updated face-negotiation theory. *International Journal of Intercultural Relations*, 22(2), 187–225. Retrieved on 17 March 2021 from <https://www.sciencedirect.com/science/article/pii/S0147176798000042>

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