Introducing 'Pragmatic Intelligence' as a Prerequisite for Pragmatic Competence in Communication

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Abstract— **There have been various approaches to the definition of the elusive term 'intelligence' from the perspectives of psychologists, computer language experts, natural scientists, linguists, philosophers, and others. However, no unanimous definition has so far been made for the term. On the contrary, new readings and understandings arise as the outcome of theoretical and experimental studies. This paper is an attempt to introduce the term 'pragmatic intelligence' as a prerequisite and a basic requirement for pragmatic competence to avoid pragmatic failure and secure a felicitous communication among interlocutors. The paper hypothesizes that 'pragmatic intelligence' is a prerequisite for 'pragmatic competence'. In order to verify the hypothesis, the researcher theoretically analyzed the necessity of associating pragmatic competence with a mother concept of the same origin rather than connecting it to either Chomsky's grammatical competence or Hymes' communicative competence. The paper concluded that 'pragmatic intelligence' encompasses innate factors that human beings are born with, which could be shaped in the form of pragmatic competence depending on the quantity and quality of the obtained knowledge. Nonetheless, the paper also proposes for researchers to study the universal characteristics of 'pragmatic intelligence' and its pedagogical implications on first and second language acquisition.**

Index Terms— **Pragmatic intelligence, pragmatic competence, intelligence, communication, pragmatic failure.**

I. INTRODUCTION

Exploring human beings' innate capacities has been partially achievable due to the abstract nature of the concept and the quest for their application in real life based on the available research and experimental resources. 'Intelligence' has been a subject of mutual interest and demand by philosophers and scientists. Philosophers, mainly in the field of psychology, focus on the conceptual and abstract aspect of intelligence, whereas scientists and mathematicians have been seeking for the empirical application of the reflection of intelligence in technological advancements. In this paper, the researcher initiates, introduces and defines a new type of intelligence, namely 'pragmatic intelligence' to complete our understanding of 'pragmatic competence' and where it comes from. Throughout the paper, the terms intelligence, intelligence categories, knowledge, pragmatic competence, pragmatic failure and other major concepts are identified and discussed, but only to the extent they serve the specific objective of this research. Hence, unnecessary and irrelevant elaborations and analyses are spared.

II. WHAT IS INTELLIGENCE?

Legg and Hutter (2007) survey seventy definitions made for the term 'intelligence' which were categorized into three major groups: *collective definitions* made by groups or organizations, definitions *from psychologists*, and definitions from *artificial intelligence researchers*.

Referring to definitions of 'intelligence' from groups and organizations, the first of two definitions of 'intelligence' by Merriam-Webster Dictionary states that intelligence is 'the ability to learn or understand or to deal with new or trying situations'. Additionally, the first of two definitions of 'intelligence' by Oxford Learner's Dictionary defines intelligence as 'the ability to learn, understand and think in a logical way about things; the ability to do this well'.

Intelligence has always been a significant and essential concept for psychologists. In their survey, Legg and Hutter (2007) state thirty-five definitions for 'intelligence' by psychologists, for example, Gardner's definition which states that "An intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural settings". They also refer to Wechler's definition for intelligence as, "A global concept that involves an individual's ability to act purposefully, think rationally, and deal effectively with the environment". They also mention Boring's definition which

seems to be noticeably weasel as he states that "Intelligence is what is measured by intelligence tests." (ibid)

The third group of definitions surveyed by Legg and Hutter (2007) contains eighteen definitions for intelligence from artificial intelligence researchers. Albus, for example, defines 'intelligence' as ". . . the ability of a system to act appropriately in an uncertain environment, where appropriate action is that which increases the probability of success, and success is the achievement of behavioral subgoals that support the system's ultimate goal." Additionally, McCarthy points out that "Intelligence is the computational part of the ability to achieve goals in the world. Varying kinds and degrees of intelligence occur in people, many animals and some machines" (ibid).
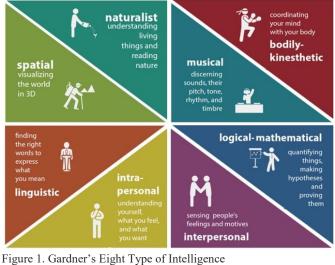
This huge number of definitions for a seemingly simple single word projects the fact that explaining what 'intelligence' means is outstandingly controversial. However, none of the definitions deny the significance of being intelligent as a foundation of knowledge acquisition.

Figure 1. Gardner's Eight Type of Intelligence
The Credit goes to 'Thrive Global, 2019' (https://fairborndigital.us/2020/03/11/8-types-of-intelligence-howard-gardners-theory-of-multiple-intelligences/)

III. MAJOR INTELLIGENCE CATEGORIES

1) Theory of Multiple Intelligences and Linguistic Intelligence

In 1983, Howard Gardner introduced the Theory of Multiple Intelligences. Inspired by his belief that people have different kinds of intelligences, he identifies eight main types of intelligence, namely linguistic-verbal intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalist intelligence. One of the eight types of intelligence is 'Linguistic-Verbal Intelligence' which refers to the ability of using written and spoken words. This means that the interlocutors have a lot in common depending on the types and modes of communication they might be involved in. They may adapt the use of certain types of intelligences, but still find it difficult to communicate. Gardner's use of the term 'linguistic-verbal intelligence' mainly refers to the selection of using words by interlocutors, authors, journalists, lawyers, educators in their field of work, and everyday communication. Gardner (2011, p. 103) revisits his theory of multiple intelligences, and states that poets' language may represent an excellent level of linguistic intelligence.

Linguistic-verbal intelligence cannot be an identical representative of the initiated concept of 'pragmatic intelligence' in this paper, since the former is restricted to the selection of words based on the interlocutors' occupational background, whereas the latter stands for the overall capacity people have as their main innate tool for pragmatic competence.

2) Emotional Intelligence

Watson (2016, p.16) defines 'emotional intelligence' as our ability to determine and manage our emotions properly. It also includes managing the emotions of others around us. The term 'emotional intelligence' was first introduced by Peter Salovey and John Mayer (ibid, p.17). Golerman (2009, p. 80ff) expands those abilities into five main domains, as follow:

- Knowing one's emotions (Self-awareness)
- Managing emotions
- Motivating oneself
- Recognizing emotions in others
- Handling relationships

Though a very versatile area of study and research, emotional intelligence remains an umbrella term for lots of social and applied sciences, including the study of language. However, the linguistic aspect of communication may be located within the periphery of emotional intelligence and its five domains.

3) Artificial Intelligence

Russell and Norvig (2016, p.1f) state that the term 'artificial intelligence' was first coined in 1956. They refer to the four approaches that have been historically followed to define 'artificial intelligence', as follows:

- Thinking humanly
- Acting humanly
- Thinking rationally
- Acting rationally

Linguistics is considered the eighth of the total of eight foundations of artificial intelligence, preceded by philosophy, mathematics, economics, neuroscience, psychology, computer engineering, and control theory and cybernetics (2016, p.15f). Russell and Norvig refer to the connection between language

and thought, and denounce Skinner's behavioristic approach to language in favor of Chomsky's idea of creativity in language, particularly child language acquisition. This represents the birth of 'Modern Linguistics' at approximately the same time 'Artificial Intelligence' was coined. The resulting interdisciplinary field of both concepts was 'Computational Linguistics' or 'Natural Language Processing' (ibid: 15f).

A possible connection between computational linguistics and pragmatics could be in the form of the changes that occur in pragmatic competence during the child language development process. There is no explicit or even implicit reference under artificial intelligence to the source of knowledge that constitutes pragmatic competence.

IV. INTELLIGENCE AND PRAGMATIC COMPETENCE

Intelligence describes the status of mental and cognitive capacity. It describes a good thinker. Perumal (2015) finds out that intelligence is related to knowledge, whereas competence refers to the ability to put that knowledge into practice. Competence refers to the possession of adequate skill, knowledge, experience, and capacity, which describes a good doer.

Nonaka and Takeuchi (1995, p.87), cited in Bolisani and Bratianu (2018), define 'knowledge' as 'justified true belief'. Therefore, intelligence requires having knowledge. Knowledge comes first to shape someone's intelligence which represents their competence.

Pragmatic Competence was introduced by Chomsky to refer to the "knowledge of how language is related to the situation in which it is used" (Cook and Newson, 2007; p.16). Chomsky (1980, p.225) says, "Pragmatic competence places language in the institutional setting of its use, relating intentions and purposes to the linguistic means at hand". Taguchi (2014, p.1) defines pragmatic competence as "the ability to use language appropriately in a social context". She refers to the interdisciplinary nature of pragmatic competence with various other disciplines, namely 'linguistics, applied linguistics, anthropology, sociology, psychology, communication research, and cross-cultural studies' (ibid).

Concerning the distinction between grammatical competence and pragmatic competence, Chomsky (1980, p.224) points out that 'grammatical competence' is restricted to the knowledge of form and meaning, whereas 'pragmatic competence' is manifested in the knowledge of conditions and manner of appropriate use in accordance with the various purposes behind the communication process. Ifantidou (2014, p.1ff) studies the interrelation between pragmatic competence and linguistic competence/performance. She states that linguistic competence is required for pragmatic competence during communication, but linguistic performance requires both linguistic competence and pragmatic competence.

From the sociolinguistic perspective, pragmatic competence was seen as a component of 'communicative competence' (ibid).

V. V. PRAGMATIC FAILURE

The term 'pragmatic failure' was originally introduced by Thomas to refer to the mismatch between what is meant (the speaker's conversational implicature) and what is said (the hearer's originated inferences) in cross-cultural communication. Thomas (1983), cited in Shen (2013, p. 132), defines pragmatic failure as "the inability to understand what is meant by what is said". Shen thinks that the term pragmatic failure is used instead of pragmatic error, because one cannot judge over the truthfulness or falsehood of the pragmatic force of an utterance. The pragmatic force may not help the speaker achieve the intended purpose behind his/her utterance. Pragmatic Failure can be categorized into two types of failure: pragmalinguistic failure and sociopragmatic failure (ibid).

As a case in point, here is a real situation that the researcher has experienced, which may explain what is meant by pragmatic failure, specifically sociopragmatic failure.

I had a friend. He was from the UK, but was living in Slemani, Kurdistan Region of Iraq. One day he said, "I have a big problem. Whenever I pay visits to places, and they offer me water to drink, I say 'supas' (Kurdish word for 'Thank you'), and the person immediately leaves without waiting for me to pick the glass of water. Why does that happen to me? What is wrong with the word 'supas'? In the UK, we say 'thank you' and drink the water." I told him that the problem was indeed in saying the word 'supas' alone, because that means 'Thank you, I am not thirsty.'. "Instead, you should say 'Ay supasisht akam', which means 'Oh, I do thank you' or say 'Ay dastxosh', which means 'Oh, well-done', and then the person will wait until you pick the glass." When I saw him months later, he thanked me and said that he was happy with 'Ay supasisht akam'.

In order to avoid pragmatic failure, a high level of pragmatic competence led by pragmatic intelligence is necessary. In cross-cultural communication, which is not the subject matter of this paper, pragmatic intelligence might be considered the foundation of pragmatic competence in L1 and L2. This may also encourage researchers to explore the existence of a universal pragmatic intelligence, i.e. human beings are born with pragmatic intelligence, and they only acquire pragmatic competence alongside language acquisition process, which may exceed the territory of first language, and trespass to the domain of bilingualism and multilingualism. The evident existence of pragmatic failure could support that hypothesis.

VI. VI. INTRODUCING 'PRAGMATIC INTELLIGENCE'

The word 'ability' is repeated in almost all the definitions for 'intelligence'. The definition of pragmatics, on the other hand, is equated with 'the language use in context' (Birner, 2013, p. 2), and 'speaker's meaning' and 'utterance interpretation' (Thomas, 1995, p. 2). Blending both terms 'pragmatics' and 'intelligence' generates the new term 'pragmatic intelligence'. As a term, 'Pragmatic Intelligence' does not sound less resonant than 'linguistic intelligence' or 'emotional intelligence'. However, it needs to be placed in its appropriate position in the entire communication process.

The term 'Pragmatic Intelligence' is introduced in this paper, since neither Goleman's 'Emotional Intelligence' nor Gardner's 'Linguistic-Verbal Intelligence' explicitly and meticulously elaborates the connection between pragmatic For communication to be felicitous, it requires to have pragmatically-competent interlocutors, i.e. interlocutors who possess the ability to use language appropriately in a given context, based on the knowledge (justified true belief) they have.

As mentioned earlier, Ifantidou (2014, p.1) postulates that pragmatic competence is a prerequisite for linguistic performance, which, to Chomsky, refers to the actual use of language in concrete situations (Cook and Newson, 2007, p. 19). In other words, performance could stand for 'communication' in its more explicit and generalized reading. Pragmatic Competence, however, represents accumulated knowledge of using language in actual situations, which requires a more substantiated and robust base for that knowledge, which the researcher names 'pragmatic intelligence'.

Figure 2: From *Pragmatic Intelligence* to *Communication*

Initially, 'pragmatic intelligence' is defined by the researcher as '*a set of innate factors that shape pragmatic competence for communication*'. This definition could be a primitive attempt for a newly coined term. Researchers, interested in interdisciplinary studies particularly linguistics, psychology, communication and sociology, may develop the definition and give it a more robust and inclusive shape.

VII.   WHO IS 'PRAGMATICALLY INTELLIGENT'?

Every individual is assumed to be pragmatically intelligent, that's enjoying certain factors that shape their pragmatic competence. However, there could be a huge difference among people regarding the actual size of their pragmatic intelligence. The term is new and initiated for the first time. Therefore, experimental studies, research and investigations are needed to find out measuring criteria for 'pragmatic intelligence'. The researcher assumes that the typical measuring criteria to roughly identify the level of an individual's pragmatic intelligence is to observe the manifestation of their pragmatic competence during the communication process. So, understanding pragmatic intelligence could be in the reversed orders. That's, we first observe the communication process, then we associate that process with the acquired pragmatic competence, which depends on pragmatic intelligence.

VIII.   MANIFESTATION OF PRAGMATIC INTELLIGENCE IN COMMUNICATION

Chapman (2011, p. 132ff) identifies five key applications of pragmatics in the real world, namely politeness, literature, language acquisition, clinical linguistics, and experimental pragmatics. Additionally, Birner (2013, p. 296ff) proposes another list of applications of pragmatics, which are communication and miscommunication, technology and artificial intelligence, language and the law, and other practical applications of pragmatics. With this last one, she leaves the space open for many other applications of pragmatics as the outcome of research and experiments. More than a decade earlier, Verschueren (1999, p. 202ff) points out that Macropragmatic implications and applications can be broadened depending on research interest, and he suggests three areas of macro-processes in language use, namely intercultural and international communication, discourse and ideology, and the pragmatics of wide societal debates.

Application of pragmatics highly depends on the pragmatic competence of the interlocutors. For example, when two people or groups of people discuss the impact of artificial intelligence on technological advancement, the need for a moderated approach for religious and political ideologies, or the role of context in treating certain speech disorders, they are actually practicing their level of pragmatic competence which is the concrete version of their abstract pragmatic intelligence. To briefly elaborate the proposition, the following analysis is made for an ordinary utterance with reference to politeness.

In 1987, the notion of Politeness was initiated by Brown and Levinson based on Goffman's account of face in the society. However, as Leech (2014, p. 26) maintains, Brown and Levinson's conception of politeness refers to the protection of face from face-threatening acts. Such a face protection act might be manifested in replacing a direct speech act with an indirect one in communication. Someone might prefer saying 'Would you mind paying a visit to my office tomorrow?' to 'Pay me a visit in my office tomorrow.', because, to Leech, the latter frees the hearer from a direct imposition. However, the indirect speech act may still give no other option to the hearer than paying a visit to the office, if, for example, the request comes from the boss, particularly in case some urgency or serious issue has happened. This depends on the speaker's conversational implicature and the hearer's generated inferences, termed 'imference' by Mahmood (2015) when both turn identical.

In order that both the speaker and the hearer could negotiate the intended meaning behind the direct or the indirect speech acts, they need to be pragmatically competent, that's to have shared knowledge of the environment in which the speech is made, consider the nature of the relationship between the speaker and the hearer, and cooperate for the sake of achieving a successful communication by observing or non-observing Grice's Cooperative Principle and its founding maxims. Realizing those major factors depends on the knowledge both the speaker and the hearer separately acquired and gained.

The question is 'How do the interlocutors know about the subconscious need for politeness as a strategy, not a pragmatic principle in the first place?' The only possible answer that the researcher might provide is the existence of an inbuilt abstract

factor called 'pragmatic intelligence' from which the knowledge is accumulated to form pragmatic competence, and make the communication process felicitous. Similar analysis and detailed discussion could be the topic of further research on the realization of pragmatic intelligence via pragmatic competence in communication with reference to other pragmatic concepts, such as presupposition, deictic expressions, face-threatening and face-saving acts, performative verbs and the speech act theory.

CONCLUSIONS

The main conclusions that could be drawn from this paper include the following.

1. Pragmatic intelligence exists as an abstract collection of factors that govern pragmatic competence. Analogically, pragmatic intelligence and pragmatic competence could be compared to principles and parameters in language as postulated in Chomsky's Universal Grammar.

2. Pragmatic intelligence is a new term, and could be a versatile subject of studies in language and the interdisciplinary topics associated with language and communication.

3. The existence of intelligence categories and multiple intelligences do not substitute for pragmatic intelligence as a new term introduced in this paper.

4. The best method to cultivate pragmatic intelligence could be through pragmatic applications, rather than isolated and pure linguistic terms and concepts.

5. In case of expanding Gardner's Theory of Multiple Intelligences, the researcher suggests adding 'pragmatic intelligence' to the list as a separate type of intelligence.

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