

Activating, seeking, and creating common ground

A socio-cognitive approach

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This paper argues that current pragmatic theories fail to describe common ground in its complexity because they usually retain a communication-as-transfer-between-minds view of language, and disregard the fact that disagreement and egocentrism of speaker-hearers are as fundamental parts of communication as agreement and cooperation. On the other hand, current cognitive research has overestimated the egocentric behavior of the dyads and argued for the dynamic emergent property of common ground while devaluing the overall significance of cooperation in the process of verbal communication. The paper attempts to eliminate this conflict and proposes to combine the two views into an integrated concept of common ground, in which both core common ground (assumed shared knowledge, *a priori* mental representation) and emergent common ground (emergent participant resource, *a post facto* emergence through use) converge to construct a dialectical socio-cultural background for communication.

Both cognitive and pragmatic considerations are central to this issue. While attention (through salience, which is the cause for interlocutors' egocentrism) explains why emergent property unfolds, intention (through relevance, which is expressed in cooperation) explains why presumed shared knowledge is needed. Based on this, common ground is perceived as an effort to converge the mental representation of shared knowledge present as memory that we can activate, shared knowledge that we can seek, and rapport, as well as knowledge that we can create in the communicative process. The socio-cognitive approach emphasizes that *common ground is a dynamic construct that is mutually constructed by interlocutors throughout the communicative process*. The core and emergent components join in the construction of common ground in all stages, although they may contribute to the construction process in different ways, to different extents, and in different phases of the communicative process.

Keywords: assumed common ground, attention, cooperation, core common ground, egocentrism, emergent common ground, intention, socio-cognitive approach, socio-cultural background

1. Theoretical background

Current pragmatic theories emphasize the importance of intention, cooperation, common ground, mutual knowledge, relevance, and commitment in executing communicative acts. Cooperation and common ground are considered particularly important for successful communication. Presently, there are two main approaches to common ground. The dominant view (e.g., Stalnaker 1978; Clark and Brennan 1991; Clark 1996) considers common ground a category of specialized mental representations that exists in the mind *a priori* to the actual communication process. Arnseth and Solheim (2002) pointed out that Clark and Brennan's joint action model (1991) and Clark's contribution theory (1996) retain a communication-as-transfer-between-minds view of language, and treat intentions and goals as pre-existing psychological entities that are later somehow formulated in language. In these theories, common ground is considered as a distributed form of mental representation and adopted as a basis on which successful communication is warranted.

The other approach to common ground has emerged as a result of recent research in cognitive psychology, linguistic pragmatics, and intercultural communication. Investigating how the mind works in the process of communication, cognitive researchers (Barr 2004; Barr and Keysar 2005; Colston and Katz 2005) revealed that *a priori* mental representation of common knowledge is not as significantly involved in the process of communication as pragmatic theories have claimed; instead, they formed a more dynamic, emergence-through-use view of common ground which conceptualizes it as an emergent property of ordinary memory processes (also see Arnseth and Solheim 2002; Koschmann and Le Baron 2003). This dynamism is also emphasized in other studies (e.g., Heritage 1984; Arundale 1999; Scheppers 2004) which report that real everyday communication is not conducted as a relatively static practice of recipient design and intention recognition, which current pragmatic theories tend to claim. In fact, communication is more like a trial-and-error, try-again process that is co-constructed by the participants. It appears to be a non-summative and emergent interactional achievement (Arundale 1999, 2008).

With this dynamic revision of common ground, the role of cooperation has also been challenged. Several researchers (e.g., Keysar and Bly 1995; Barr and Keysar 2005; Giora 2003) have indicated that speakers and hearers are egocentric to a surprising degree, and individual, egocentric endeavors of interlocutors play a much more decisive role in the initial stages of production and comprehension than current pragmatic theories envision. Their egocentric behavior is rooted in the speakers' or hearers' more reliance on their own knowledge instead of mutual knowledge. Recent research in intercultural communication also affiliates with

cognitive dynamism. Kecskes (2007) argued that especially in the first phase of the communicative process, instead of looking for common ground, which is absent to a great extent, lingua franca speakers articulated their own thoughts with linguistic means that they could easily use.

We assume that cooperation and egocentrism are not mutually exclusive phenomena. They are both present in all stages of communication to a different extent. These two approaches to common ground, weighing cooperation and egocentrism respectively, have nonetheless the same weakness; neither resides in a socio-cognitive perspective. Therefore, we consider the socio-cognitive concern a necessity in revising the notion of common ground with a view that pays equal attention to cooperation and egocentrism.

2. Need for a socio-cognitive perspective

This paper is an attempt to eliminate the conflict between the communication-as-transfer-between-minds pragmatic view and the dynamic cognitive view of common ground, and proposes instead a dialectical approach with an overall socio-cognitive concern that combines the current views into an integrated concept of *assumed common ground*. This attempt is made by applying a socio-cognitive view to common ground within the framework of the dynamic model of meaning (DMM) presented in Kecskes (2008). According to the DMM, communication is the result of interplay of intention and attention on a socio-cultural background. Not only is communication an intention-directed practice, as the pragmatic approach posits, but it also displays an attention-oriented traits. The interplay of intention and attention is formed on the basis of mutual knowledge of the interlocutors, and in turn affects the construction of mutual knowledge in the processing of communication. The socio-cultural background, according to the DMM, is composed of dynamic knowledge of interlocutors deriving from their prior experience and current experience that are both socio-cultural in nature. We argue that the reason why neither the pragmatic view nor the cognitive view has been able to capture the real nature of common ground is that they have ignored the fact that both intention and attention are motivated by socio-cultural factors.

According to the DMM, two components of common ground are identified: *core common ground*, which is composed of common sense, cultural sense, and formal sense, and mainly derives from the interlocutors' shared knowledge of prior experience, and *emergent common ground*, which is composed of shared sense and current sense, and mainly derives from the interlocutors' individual knowledge of prior and/or current experience that is pertinent to the current situation. The construction of common ground is a dynamic process; *it is the convergence of*

the mental representation of shared knowledge that we activate, shared knowledge that we seek, and rapport as well as knowledge that we create in the communicative process. Socio-cognitive factors motivate the interplay of intention and attention in this process and decide at which stage and to what extent intention and attention dominate the process and what their relationship is like.

In what follows, we give a critical review of both pragmatic theories and cognitive research findings. We then discuss the socio-cognitive approach that integrates both sides into a holistic view. Finally, we account for the assumed common ground.

3. Pragmatic and cognitive views

3.1 The pragmatic view

Current pragmatic theories attach great importance to cooperation in the process of communication. Communication is considered an intention-directed practice, during which the interlocutors mutually recognize the intentions and goals, and make joint effort to achieve them (Clark 1996). Grice's (1975) four maxims formulate the overall rules to regulate the speaker's production of an utterance, and it is on the basis of a mutual agreement of these maxims that cooperation is recognized and comprehension is warranted.

This is an ideal abstraction of verbal communication, in which cooperation and effect of intention are greatly valued. Under such a communication-as-transfer-between-minds construal common ground is also idealized as an *a priori* mental state of interlocutors that facilitates cooperation and successful communication (e.g., Stalnaker 1978; Clark and Brennan 1991; Clark 1996). The mental representations of (assumed) shared knowledge exist in the speaker prior to a conversation, and contribute to it as they relate to and facilitate comprehension of the intentions and goals which direct the conversation in a desired way.

These theories in favor of ideal abstraction of verbal communication have met with several challenges. Cooperation was questioned by the Relevance Theory (RT) which refers to counter cases of cooperation when the interlocutors are unwilling to build relevance because of their preferences for certain interests as opposed to cases when they are unable to be relevant because of lack of the needed information or mental resources. In RT, the interlocutors are free to be cooperative or uncooperative, and their preferences for cooperation or the reverse are driven by their own interests. On the other hand, the role of intention was also considered equivocal. While Gricean, neo-Gricean, and post-Gricean theories consider intention as central to communication (cf. Wilson and Sperber 2004; Levinson 2006a), other pragmatists emphasized the decisive function of society in communication

and rejected the central role of intention (cf. Verschueren 1999; Mey 2001), or challenged Gricean intention from cognitive perspectives (cf. Jaszczolt 2005, 2006; Keysar 2007).

Conflicting views on intention were formed, “ranging from ‘believers’ through to ‘skeptics’ (with perhaps not a few ‘agnostics’ in-between)” (Haugh 2008: 106). Recent studies (e.g., Verschueren 1999; Gibbs 2001; Arundale 2008; Haugh 2008) have pointed out that the role intention plays in communication may be more complex than proponents of current pragmatic theories have claimed. In particular, there is substantial recent evidence that works against the continued placement of Gricean intentions at the center of pragmatic theories. While this evidence mainly comes from the socio-cultural, interactional line of research in pragmatics, the cognitive-philosophical line (represented by neo-Gricean Pragmatics, Relevance Theory, and Speech Act Theory) still maintains the centrality of intentions in communication. According to this view, communication is constituted by recipient design and intention recognition. The speaker’s knowledge involves constructing a model of the hearer’s knowledge relevant to the given situational context; conversely, the hearer’s knowledge includes constructing a model of the speaker’s knowledge relevant to the given situational context. Communication is supposed to be smooth if the speaker’s intentions are recognized by the hearer through pragmatic inferences. Consequently, the main task of pragmatics is to explain how exactly the hearer makes these inferences, and determine what is considered the speaker’s meaning. In a recent study, Levinson (2006b) confirms that (Gricean) intention lies at the heart of communication, and proposes an “interaction engine” that underlines human interaction.

In contrast, the sociocultural-interactional paradigm does not consider intention as central to communication; rather it underlines its equivocality. According to this view, communication is not always dependent on speaker intentions in the Gricean sense (e.g., Verschueren 1999; Nuyts 2000; Mey 2001; Haugh 2008). The field of Conversational Analysis (CA) is also very critical about intention. According to conversation analysts the role of intention (or goal/plan), together with other mental resources such as awareness and mutual knowledge (e.g., Schiffer 1972), is considered equivocal and peripheral to the study of communication. What really matters is the situated action observable in the objective physical and social world and accountable by the inferred mental world of participants (e.g., Suchman 1987). CA analysts resist addressing mental representations of the participants and keep agnostic about how intention is inferred, how the state/level of awareness and mutual knowledge are involved in and affect social interaction, and how distinct facets of the mental world converge to make an influence on communication (e.g., Mandelbaum and Pomerantz 1990). Rather, communication is action-oriented, and intention is not central or indispensable to communication

as pre-existing artifact but only invoked as a possible account for social actions (e.g., Edwards 2006; Haugh 2008).

In fact, one of the main differences between the cognitive-philosophical approach and the socio-cultural interactional approach is that the former considers intention an *a priori* mental state of speakers that underpins communication, while the latter regards intention as a *post factum* construct that is achieved jointly through the dynamic emergence of meaning in conversation. Since the two approaches represent two different perspectives, it would be difficult to reject either of them *in toto*. The complexity of the issue requires that we consider both the encoded and co-constructed sides of intention when analyzing the communicative process. Haugh (2008) proposed that the notion of intention need only be invoked in particular instances where it emerges as a *post factum* construct, salient to the interactional achievement of implicatures.

3.2 The cognitive view

The most robust evidence against cooperation and common ground as an *a priori* mental state derives from empirical cognitive research, which reported the egocentrism of speaker-hearers in mental processing of communication and postulated the *emergent property* of common ground. Barr and Keysar (2005) claimed that speakers and hearers commonly violate their mutual knowledge when they produce and understand language. Their behavior is called “egocentric” because it is rooted in the speakers’ or hearers’ own knowledge instead of in mutual knowledge. Other studies in cognitive psychology (e.g., Keysar and Bly 1995; Giora 2003; Keysar 2007), have shown that speakers and hearers are egocentric to a surprising degree, and that individual, egocentric endeavors of interlocutors play a much more decisive role, especially in the initial stages of production and comprehension than is envisioned by current pragmatic theories. This egocentric behavior is rooted in speakers’ and hearers’ relying more on their own knowledge than on mutual knowledge. People turn out to be poor estimators of what others know. Speakers usually underestimate the ambiguity and overestimate the effectiveness of their utterances (Keysar and Henly 2002).

Findings about the egocentric approach of interlocutors to communication are also confirmed by Giora’s (1997, 2003) graded salience hypothesis and Kecskes’s (2003, 2008) dynamic model of meaning. Interlocutors seem to consider their conversational experience more important than prevailing norms of informativeness. Giora’s (2003) main argument is that knowledge of salient meanings plays a primary role in the process of using and comprehending language. She claimed that “...privileged meanings, meanings foremost on our mind, affect comprehension and production primarily, regardless of context or literality” (Giora

2003: 103). Kecskes' dynamic model of meaning (2008) also emphasizes that what the speaker says relies on prior conversational experience, as reflected in lexical choices in production. Conversely, how the hearer understands what is said in the actual situational context depends on her prior conversational experience with the lexical items used in the speaker's utterances. Smooth communication depends primarily on the match between the two. Cooperation, relevance, and reliance on possible mutual knowledge come into play only after the speaker's ego is satisfied and the hearer's egocentric, most salient interpretation is processed. Barr and Keysar (2005) argued that mutual knowledge is most likely implemented as a mechanism for detecting and correcting errors, rather than as an intrinsic, routine process of the language processor. Example (1) taken from Norton (2008: 189) illustrates this point. The excerpt is from the Call Home Corpus, which is a collection of telephone conversations between friends and family members collected by the Linguistic Data Consortium (Kingsbury et al. 1997):

- (1) A: And one of her students showed her how to get into *the X-500 directories*.
 B: Which are?
 A: Hm?
 B: What are the X-500 directories?
 A: Oh um where you put- your um- How c- How can you not know?

The excerpt contains an infelicitous referring expression. Speaker "A" seems to attribute too much knowledge to his addressee, referring to the "X-500 directories" without further identifying information. This prompts "B" to seek clarification about what is meant.

The studies mentioned above and many others (Giora 2003; Arnseth and Solheim 2002; Koschmann and Le Baron 2003; Heritage 1984; Arundale 1997, 2004; Scheppers 2004) warrant some revision of traditional pragmatic theories on cooperation and common ground. *Communication in general is not an ideal transfer of information; instead, it is more like a trial-and-error process that is co-constructed by the participants*. It is a non-summative and emergent interactional achievement (e.g., Arundale 2008). Consequently, the cooperative principle does not suffice for such revision of communication, and is proved vulnerable to fluctuations of mental resources that prefer egocentric interpretations (Strayer and Johnson 2001).

However, a call for revision of the ideal abstraction does not mean the absolute denial of it. If we compare the pragmatic ideal version and the cognitive coordination approach, we may discover that these two approaches are not contradictory but complementary to each other. The ideal abstraction adopts a top-down approach. It works for a theoretical construct of pragmatic tenets that warrant successful communication in all cases. In contrast, the cognitive coordination view adopts a bottom-up approach. It provides empirical evidence that supports a systematic

interpretation of miscommunication, and further is applied to all cases in general. From a dialectical perspective cooperation and egocentrism are not conflicting, and the *a priori* mental state versus *post facto* emergence of common ground may converge to a set of integrated background knowledge for the interlocutors to rely on in pursuit of relatively smooth communication. So far no research has yet made an attempt to combine the two. Therefore, the aim of this paper is to eliminate the ostensible conflicts between common ground notions as held by the two different views, and to propose an approach that integrates their considerations into a *holistic concept of assumed common ground*. We substantiate this approach to common ground by adopting a socio-cognitive view that envisions a dialectical relationship between intention and attention in the construal of communication.

4. A socio-cognitive view: The construal of communication

As discussed above, the pragmatic view posits cooperation as the main driving force of communication, while the cognitive view considers egocentrism as central in communication. In the socio-cognitive view adopted in this paper, *communication is the result of the interplay of intention and attention motivated by the socio-cultural background*. This view emphasizes that both cooperation and egocentrism are manifested in all phases of communication. While cooperation is an intention-directed practice and measured by relevance, egocentrism is an attention-oriented trait and measured by salience. More importantly, a socio-cultural background is assumed to underlie the process of communication and interact with intention and attention in a systematic way.

The measurement of intention and attention by means of relevance and salience is distinct from earlier explanations (e.g., Sperber and Wilson 1986; Wilson and Sperber 2004; Giora 2003; Kecskes 2006). Unlike Wilson and Sperber's (2004) account of relevance as a unified constraint with both cognitive and pragmatic concerns, relevance in our model is exclusively a pragmatic effect caused by relations to intention; only information that relates to intention is considered relevant in communication according to our approach. The notion of salience also carries different interests. While salience by Giora (2003) mainly concerns the storage of knowledge as a function of degree of familiarity, frequency and conventionality, salience in our view refers to the contingent effect of salient knowledge as a result of attentional processing of communication in a particular situation, which facilitates or hampers the expression of intention and the subsequent achievement of communicative effects.

Our view posits a dialectical relationship between intention and attention, which also differs from current research. The pragmatic view and the cognitive

view as previously reviewed concern intention and attention in an isolated way; there is no explicit explanation of relations between them. Relevance Theory defines relevance by both effects of attention and intention but doesn't distinguish the two effects or clarify explicitly their relations. This is revealed in their claim "an input (a sight, a sound, an utterance, a memory) is relevant to an individual when it connects with background information he has available to yield conclusions that matter to him" (Wilson and Sperber 2004: 3). In conversation analysis (e.g., Mandelbaum and Pomerantz 1990; Edwards 2006) social actions are pivotal structures of communication and fully explored. In contrast, no special efforts are ever made in analytic approach to intention and attention and their relations. However, this may change in the future as a recent study by Kidwell and Zimmerman (2007) suggests.

In our approach we identify intention and attention as two measurable forces that affect communication in a systematic way. We attempt to clarify the traits and interplay of intention and attention based on the socio-cultural background. The background, according to the Dynamic Model of Meaning by Kecskes (2008), is composed of knowledge of interlocutors deriving from their prior experience and current situational experience that are both socio-cultural in nature. This background knowledge is the basis for assumed common ground that we will expound in the next section. However, before that we need to clarify our understanding of intention and attention.

4.1 Intentions

Our socio-cognitive view of intention incorporates the Searlean understanding of the term (Searle 1983), and extends it to emphasize the dynamism of intention and its non-summative and emergent nature. We not only consider the centrality of intention in conversation, as the cognitive-philosophical approach has adhered to, but also take into account the dynamic process in which the intention can be an emergent effect of the conversation. In our view intention is considered a dynamically changing phenomenon that is the main organizing force in the communicative process. Intention is not only private, individual, pre-planned and a precursor to action, but also emerging and social. It should be underlined that we are not talking about a dichotomy. Rather *a priori intention* and *emergent intention* are two sides of the same phenomenon that may receive different emphasis at different points in the communicative process. When a conversation is started, the private and pre-planned nature of intention may be dominant. However, in the course of conversation the emergent and social nature of the phenomenon may come to the fore. These two sides of intention are always present, and the question is only *to what extent* they are present at any given moment of the communicative process.

This view does not contradict Searle's claim that intentionality is directedness; intending to do something is just one kind of intentionality among others (Searle 1983: 3), and it is also in line with Joas's claim that intentionality consists in a self-reflective control, which we exercise over our current behavior (Joas 1996: 158).

The basic property that renders intention a central element of communication is its functionality. There is always a reason and/or a goal behind a conversation; without intention there would be no need to initiate communication, and we could hardly make any sense of this social action. Searle (1983, 2007) considered intention and also other tenets, such as perception, desire and belief, as prerequisites of communication. However, this is just one side of intention. The emergent side is co-constructed by participants in the dynamic flow of conversation. Let us take the following conversation:

- (2) John: – Want to talk about your trip?
 Peter: – I don't know. If you have questions...
 John: – OK, but you should tell me ...
 Peter: – Wait, you want to hear about Irene?
 John: – Well, what about her?
 Peter: – She is fine. She has...well... put on some weight, though.

John's utterance gives the impression that his intention is to give a chance to his friend to talk about his trip. However, Peter does not seem to have much intention to do so. John's second utterance looks very determined but it is not completed, so we will never know what his real intention was. But that utterance triggers an interesting turn in Peter who thinks John wants to know about his former girlfriend, Irene. Maybe this was not John's intention but the flow of conversation led to this point, which appears to be a kind of *co-constructed intention*.

We propose to distinguish three types of intentions and two levels of expressions of those intentions. The three types of intentions, namely informative, performative, and emotive, are expressed in the utterance at the primary (functional) and secondary (constructional) level.¹ It is important to note that all three types of intentions carry a so called "performative" effect, an intention to 'do things by saying' or achieve certain effects, which entails a certain reaction on the hearer's side. However, our classification of intentions uses 'performative' in a narrow sense; performative intention is that through which a certain act is initiated, such as proposing to a loved one or initiating a trip. This is supposed to be different from the other two types of intentions as described below.

Informative intentions indicate that the speaker intends to inform the hearer about something new; story telling, lecture delivering and news reporting are typical cases of this intention. *Performative intentions* indicate that the speaker intends to perform an action that often produces a certain effect, such as a change of state

or a reaction from the hearer; the president's declaring a war and a friend's inviting you to a dinner are such cases. *Emotive intentions* indicate that the speaker intends to express her feelings or evaluations about a state, an event or an object; complaining, blaming, or showing gratitude are such cases.

It is the type of intention expressed in the primary level in a particular conversation that is most critical. The primary intention is functional — it guides a conversation (i.e., the goal) and decides the relevance of utterances to the conversation in a particular situation (and therefore it is coherent to its context, both verbal and non-verbal). The secondary intention is constructional. It represents the most ready interpretation of the encoded information of a sentence (and therefore it is semantically encoded and free from context). In real situations it is sometimes the case that an utterance expresses one type of primary intention that is distinct from the secondary one. This explains why the same utterance may carry different intentions when its context changes. We illustrate this point by the examples below:

- (3) The conversation takes place at Bud's house that Ann visits at the weekend:

Ann: – That doll looks cool!

Bud: – Thank you.

- (4) This conversation happens at a shop-window that Ann passes with her mother.

Ann: That doll looks cool!

Mom: Oh yes dear, but we must hurry to meet your father.

In both cases, Ann's utterance is exclamatory and expresses emotive intention. However, this is only the secondary level of intention. The primary level, which is connected with the context, is expressed differently in the two situations. While in conversation (3) Ann's primary intention is emotive (praise a doll on Bud's sofa) — so it coincides with the secondary level intention, in (4) she enacts a performative intention (which is emotive on the secondary level) — to plead with her mother to stop and look at or purchase the doll.

In sum, communication is a process in which intention is formed, expressed and interpreted. From the speaker's perspective, intention is something that she bears in mind prior to the utterance, or is generated in the course of conversation and expressed in the form of utterances. From the hearer's or an analyst's perspective, intention is something that is processed by the hearer while or after the utterance is (being) made. The primary intention expressed in a particular situation serves the function of guiding the conversation. Knowledge or information explicated in linguistic forms, implied connotation and also background that can be inferred, all get united for comprehension and achievement of communication under the driving force of intention. *Cooperation is therefore a consistent effort of interlocutors to build up relevance to intentions in their communication.* This sense

of cooperation is close to Grice's cooperative principles (Grice 1957) and Simons's brief reinterpretations (Simons 2006, 2007). However, in our approach there is significant room for dynamism, which means that intention is not necessarily *a priori* but it can also be generated and changed during the communicative process. This dynamism is reflected in emerging utterances that may be interrupted and started again. It is not only the context but also the dynamism of the flow of the conversation and the process of formulating an utterance that may also affect and change intention.

4.2 Attention

Attention refers to the cognitive resources available to interlocutors that make communication a conscious action. In the process of communication, when intention is formed, expressed, and interpreted, attention contributes to the stages of the process with different strengths. According to our approach, attention can be classified as follows: mindful, mindless, and mind-paralyzed.² The mindful state refers to situations when a lot of attentional resources are evoked in a more strenuous and focused way, the mindless state refers to situations when relatively fewer resources are evoked and more automatic actions take place, and the mind-paralyzed state³ (e.g., Strayer and Johnson 2001) refers to scenarios when the amount and extent of attentional resources involved in communication are impaired by unnatural or abnormal conditions, such as distraction, mental illnesses, getting drunk or shocked, which make the interlocutors' effort of attentional processing ineffective.

Three factors will affect salience of knowledge and ease of attentional processing in all stages: interlocutors' knowledge based on prior experience, frequency, familiarity, or conventionality of knowledge tied to the situation, and the interlocutors' mental state or availability of attentional resources.⁴ The knowledge most salient to the interlocutors at a particular situation is information that is included in their knowledge base, pertinent to the current situation, and processed by necessary attentional resources. No matter what mental state they are in, and what stage of communication they work for, there is most salient knowledge stored in the interlocutors as a result of interplay of the three factors. To illustrate this, let us look at two situations: situation (a) when Ann saw Bud, her classmate, on campus, versus situation (b) when Ann saw a cobra in a nearby bush in the forest. Given that both Bud and cobras are present in Ann's knowledge base, Ann will pay attention to them when seeing them. If Ann doesn't know Bud and cobras, the sight of them may trigger attentions that work differently, or even they fail to draw her attention at all. In addition, as the sight of Bud is conventional and non-urgent to the situation, the attentional resources needed for processing are

relatively fewer compared with the occasion when the sight of a cobra is rather unusual or alarming. The attentional resources available at the given situation also affect how knowledge is processed. Usually, processing is effective as long as the needed attentional resources are satisfied in that situation, except when Ann fails to summon her attention as a result of distraction or other mental interference.

The analysis above explains attention and the effect of salience in the first stage of communication when intention is formed. All other stages in the communicative process also require the commitment of attention so that successful communication occurs as an outcome of conscious effort. As stated above, cognitive research observed egocentric behavior of interlocutors in the process of communication. *Egocentrism means that interlocutors activate the most salient information to their attention in the construction (speaker) and comprehension (hearer) of communication.* This claim demonstrates that there is a major difference between Giora's understanding of salience and our understanding of it. While Giora focuses on the hearer only, we emphasize that salience is present in both production and comprehension. The speaker will use those linguistic resources (lexical units) which she thinks are most salient to express her communicative intentions or/and goals. Because of differences in their knowledge base, the frequency/rituality of the knowledge in the situation, and the attentional resources available for processing, interlocutors enjoy different salience of knowledge, and therefore conduct attentional processing of communication in an egocentric manner. The following example demonstrates how differences in salience of knowledge may result in misunderstanding.

- (5) Anchor: — Do you believe in *clubs* for young people?
 Priest: — Only when kindness fails. (Giora 2003)

It is obvious that the most salient meaning of “club” is different for the anchor and priest. Even the actual situational context fails to create common ground.

There are specific ways attention contributes to different stages of communication as characterized by the processes of intention. When intention is formed, attention plays a crucial role. Take conversation (6) as an example.

- (6) Ann is speaking to Bud.
 Ann: — Don't move! Cobra!

Without noticing the existence of a cobra nearby, Ann's intention of warning wouldn't come into being.

Greetings, for instance, are also relevant only when the speaker catches sight of another person who is known to her; such consciousness of a certain state necessitates a functional response. When intention is expressed in an utterance, the speaker also needs necessary attention to formulate the utterance in a comprehensible

way. The frequency or familiarity of the intention and especially of the linguistic expression in that situation determines the extent of attentional processing. Greetings require less attentional resources and appear more automatic than the warning of a cobra, which is not frequent or easily accessible in processing. When intention is interpreted by the hearer, the amount of attentional resources is similarly proportional to when intention is formulated. The person being greeted can easily comprehend the speaker's intention and responds to it in an effortless way. However, for Bud (example 6) who is warned of the cobra, it may not be easy, but instead he needs strenuous efforts to read the intention and make relevant reaction.

On the other hand, intention directs attention to relevant information resources so that intention can be realized, and communication be conducted in a coherent and comprehensible way. Intention has a selective function of those resources, and is central to the processing of communication.

The socio-cultural background has an overall influence on the interplay of intention and attention. The interlocutors' knowledge directs their attention to awareness of different features or parts of the same presence; for example, an architect, an engineer, and a dustman may form different views at the sight of the same building. Also as a consequence of this, different intentions may be formed, and the effect of interplay is also affected by the accessibility of the knowledge. As a result, *communication is achieved with intentional action guaranteed by attentional processing, both motivated by the socio-cultural background*. Interlocutors are both cooperative (in terms of intention) and egocentric (in terms of attention) in the process. The part of knowledge that is relevant to intention, salient to the attention, and available in the socio-cultural background will contribute to successful communication.

5. Assumed common ground

The notion of assumed common ground is proposed under the socio-cognitive view of communication and discussed within the theoretical framework of the dynamic model of meaning (Kecskes 2008). In this section, we briefly review the model and then propound the revised concept of common ground that attempts to eliminate the conflicts between pragmatic and cognitive approaches and integrates them into a holistic view of common ground.

5.1 Understanding context

According to the dynamic model of meaning, "... meaning formally expressed in the *linguistic interactional context* is created on-the-spot, and is the result of the interaction and mutual influence of the private contexts represented in the language

of the interlocutors and the actual situational context interpreted by the interlocutors” (Kecskes 2008: 385). Thus meaning is the result of interplay of prior experience and current experience that are both socio-cultural in nature. This claim puts the understanding of context into a new perspective because it approaches context from multiple dimensions: context is formed in different time phases (from prior experience and current experience), by different agents (private or individual interlocutors, and public or collective communities), and in different forms (linguistic form and situational form). This approach is formalized in the following figure.

Figure 1 demonstrates the different ways context is understood in the process of communication. Speaker’s private context generated by intention is encoded

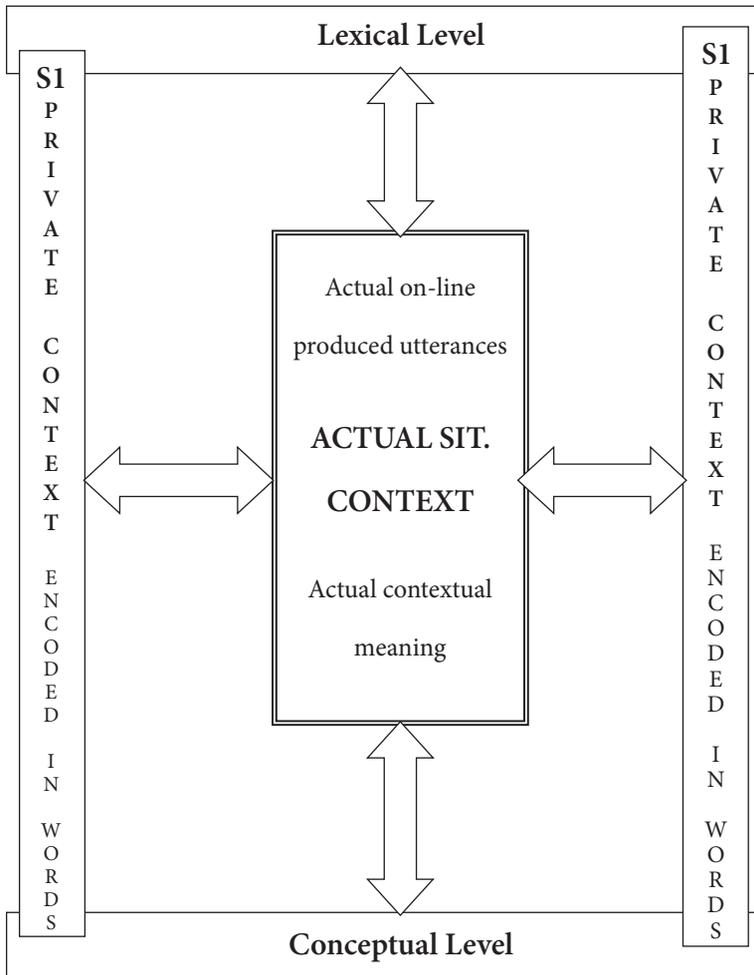


Figure 1. Understanding context (Kecskes 2008: 389)

in lexical units and formulated in an utterance (actual linguistic context) that is uttered (or written) “out there” in the world by a speaker in a situation (actual situational context), and is matched (“internalized”) to the private cognitive contexts “inside” the head of the hearer (prior knowledge). Meaning is the result of interplay between the speaker’s private context and the hearer’s private context in the actual situational context as understood by the interlocutors.

5.2 Assumed common ground in the DMM

Common ground is a cooperatively constructed mental abstraction. It is assumed by interlocutors in a sense that none will know for sure that it exists. The multi-dimensional concern of DMM facilitates the construction of common ground in communication. From the time dimension, common ground derives from the interlocutors’ information gained from prior communicative experience and current communicative experience (actual situational context). From the range dimension, common ground derives from the interlocutors’ shared information that belongs to a community (a macro concern), and that pertains to their individual experiences (a micro concern). The distinction between macro-concern and micro-concern resembles Clark’s (1996: 100) distinction between communal and personal common ground. However, there are some differences. According to Kecskes (2008: 390) prior experience of speakers creates private contexts that get encoded in lexical items in the mind of speakers of a particular speech community. These private contexts incorporate core knowledge (tied to prior experience), which is the public part of the private context, and individual-specific knowledge that may not be shared by the other members of the speech community because it is the individualized reflection of the socio-cultural context. The public context, that is to say, the public part of the private context, however, is available to each speaker of that speech community because it refers to relatively similar conceptual content that is conventionalized.

Common ground is inevitable in communication. The more common ground we activate, share and create, the better we are supposed to understand each other, and the more efficiently we achieve our desired effect. However, common ground is not something that is already there as a reliable repertoire for interlocutors, nor is it something that comes about as a loose contingent subsequence of the conversation. Neither the pragmatic nor the cognitive approach of common ground suffices to offer us a complete picture of common ground, although certain dynamism of common ground is emphasized by the pragmatic approach. Clark (1996: 116) said that “common ground isn’t just there, ready to be exploited. We have to establish it with each person we interact with.” Similar thoughts are formulated by Stalnaker (2002). The difference between Clark’s contribution theory (Clark 1996) and the

DMM is that while the former considers communication as a constant search for common ground following a contribution by contribution sequence in an idealized way, the latter underscores the “untidy,” chaotic nature of communication, which is not just recipient design and intention recognition as most theories that have grown out of Grice’s approach claim. The DMM emphasizes that speakers not always seek for common ground, and they are both egocentric and cooperative in the communicative process.

Based on the DMM, we propose a socio-cognitive approach that considers both the pragmatic and cognitive aspects within a socio-cultural frame. By integrating the pragmatic and cognitive approaches and incorporating varying sources, we postulate that there are two sides of common ground: *core common ground* and *emergent common ground*. *Core common ground* refers to the relatively static, generalized, common knowledge that belongs to a certain speech community as a result of prior interaction and experience, whereas *emergent common ground* refers to the relatively dynamic, particularized, *private* knowledge created in the course of communication that belongs to the individual(s). The former is a repertoire of knowledge that can be assumed to be shared among individuals of a speech community independent of the actual situational circumstances, such as when and where the conversation occurs, between whom it occurs, etc. This can be split into three subsets: common sense, cultural sense, and formal sense. In contrast, the actual contextual part is knowledge that is aroused or involved as shared enterprises in the particular situational context that pertains to the interlocutors exclusively. This contingent circumstance draws attention of the interlocutors to the same entities or states and, with the formation of particular intentions therein, activates some of their prior individual experiences that join in this intention-directed action. This actual contextual part can be split into two subsets: shared sense and current sense, which will be explained in Section 5.2.2.

5.2.1 *Core common ground*

As mentioned above, there are three subcategories that compose core common ground: common sense, culture sense, and formal sense. *Common sense* (of generality of the world) entails the generalized knowledge about the world. This is based on our observation of the objective world and our cognitive reasoning of it; the knowledge of natural science that is most available and accessible to us in our daily life contributes to this sense. *Culture sense* (of society, community, nation, etc.) entails the generalized knowledge about cultural norms, beliefs and values of the human society, a community, a nation, etc. People form and observe certain norms in social life, such as customs and ethics; the knowledge of social science that is available and accessible to us in our daily life contributes to this sense. *Formal sense* (of linguistic system) entails the generalized knowledge about the

language system that we use in our social interaction. We rely on a common language system, sometimes more than one system (i.e., bilingual or multilingual), to put through our meaning to each other and achieve certain desired effects, such as informing others, performing an action, or expressing our emotions. The knowledge of linguistic system that is available and accessible to us in our daily life contributes to this sense.

Core common ground is a general assumption in two ways. First, although core common ground is relatively static and shared among people, it can change diachronically. During a certain period, say a couple of years, we may safely assume that the interlocutors have access to relatively similar common knowledge as components of core common ground won't change dramatically. However, in the long run it definitely will change; people's social life, both material and spiritual, will experience some changes over a long period, and as a consequence their common ground will also be changed. Contents of lexical items demonstrate this diachronic change. The most salient meaning of the following expressions has gone through significant changes in the last 20–30 years.

(7) gay; piece of cake; awesome; patronize

Second, core common ground may also vary among different individuals. Type of knowledge and scope of a community determined by different factors such as geography, life style, and educational, financial and racial factors, restrain the accessibility of common ground to a community that is characterized in a particular way.

5.2.2 *Emergent common ground*

Emergent common ground is the part that is more private and sensitive to contingent situational context. There are two subcategories that compose emergent common ground: *shared sense* and *current sense*. *Shared sense* entails the particularized knowledge about personal (not of community) experiences that interlocutors share. *Current sense* entails the emergent perception of the current situation. This is more private a part of common ground; interlocutors perceive and evaluate the current situation, such as sight of a cobra nearby and subsequent awareness of danger, and contribute such knowledge to their conversation.

Emergent common ground is assumptive in that it is contingent on the actual situation, which reflects a *synchronic* change between common grounds in different situations. *Shared sense* varies according to the relationships of the interlocutors, and their mutual knowledge based on their personal experiences. For example, the shared sense Ann enjoys when talking to her colleague is not the same that she has when talking to her husband. Still, even for a shared experience, such as a recent excursion, the two people involved may enjoy memories of different segments of the same happening. There is no perfect match between them, and

shared sense is better achieved only after their joint effort to construct it. *Current sense* also enjoys this dynamic assumptive feature. Interlocutors may share this sense since they are involved in the same actual situation, but it may often be the case that they need to co-construct this sense when they perceive the current situation differently, which is caused by their different angles of perception, available attentional resources, and other factors. For example, Ann saw the cobra, but Bud didn't because it was behind him. In brief, both shared sense and current sense can vary from case to case according to the identification of relations or roles of interlocutors, their memory of prior experiences, and their cognitive perception of the actual situational context available to them.

5.3 Common ground is an assumption

Common ground is an assumption that we make in the course of actual communication. Both core common ground and emergent common ground are integrated parts of this assumed common ground. While core common ground is generalized from prior experience of a certain community, emergent common ground derives from individuals' prior personal experiences and perceptions of the current situation.

There is a dialectical relationship between core common ground and emergent common ground. First, the core part derives from macro socio-cultural information of a community (or any groups of people divided by nations, regions, etc.) that is accessible to all individuals in that community, whereas the actual part derives from micro socio-cultural information that pertains to individuals solely. Second, the core part changes *diachronically*, whereas the actual part changes *synchronically*. Third, the core part may affect the formation of the actual part in that it partly restricts the way the actual part occurs. In most cases the actual part is instances of information that are predictable in the core part. On the other hand, the actual part may contribute to the core part in that the contingent actual part in a frequent ritual occurrence potentially becomes public disposition that belongs to the core part. In other words, they are different components of assumed common ground, which have internal connections.

In the socio-cognitive view *assumed common ground works as a background on which the interplay of intention and attention occurs and communication takes place*. There are three different ways the two components (intention and attention) contribute to common ground in the process of communication. One is that the interlocutors activate mental representations of shared information that they already have. For example, Ann talks to her husband:

- (8) Ann: — Please check why the baby is crying.

The common ground of “the baby”, which is represented in the form of presupposition, is the shared part from their experience and activated in this utterance. This belongs to the actual part of common ground. Besides, other components of common ground including the core part are also activated, such as a baby’s physiological needs (common sense), the parents’ social roles and responsibilities (cultural sense), and their competence of language use (formal sense). Upon her utterance, Ann is fully confident that her husband has a good knowledge of the above and thus they share the same common ground that facilitates the achievement of the goal of the conversation.

A second way of constructing common ground is that interlocutors seek information that potentially facilitates communication as mutual knowledge. Before the speaker makes the seeking effort, the piece of information is not salient in the hearer as background underlying the upcoming conversation. Because the piece of information may or may not be accessible to the hearer, the speaker pronounces it explicitly so that this information becomes salient and joins in the conversation as a relevant part. For example, when walking on campus Ann talks to Bud, and a woman with blonde hair passes them:

- (9) Ann: — See the woman with blonde hair? She’s our new English teacher.
She’s pretty, isn’t she?

Ann seeks their mutual perception of the woman because her seeing the woman passing by doesn’t necessarily guarantee a mutual perception, and/or that she aims at building up the same salient knowledge in Bud so as to start a relevant conversation.

In other cases, a piece of information is mutually known to the interlocutors, but doesn’t appear as most salient in the particular moment when the conversation takes place. This occurs when the speaker attempts to talk about past experience or information that she shared with the hearer earlier. In order to involve the information as salient, the speaker will state it explicitly in the conversation. The instance of a teacher’s utterance illustrates this situation:

- (10) Teacher: — As you well know, I am leaving soon, ... (Giora 1997: 24)

Before he proposes a make-up-lecture timetable, the teacher starts with the statement of information that is publicly known to the students. We won’t comment on whether Giora’s coherence or Wilson and Sperber’s relevance works best for the above situation; rather, we argue that the assumed common ground is superior to both of them in that it identifies common ground as a set of knowledge that is salient and pertinent to the current situation. The information that is commonly known to the interlocutors doesn’t necessarily become a part of common ground in the current conversation if it is neither salient nor relevant to the social action involved.

The third contribution to common ground is when the speaker brings in her private knowledge and makes it a part of common ground. The speaker has some private information that she knows is non-accessible to the hearer, and she adopts it as common ground in the belief that it facilitates the conversation and that the hearer will accept it willingly. For example, Ann responds to Bud's invitation to dinner:

- (11) Bud: — Ann, would you like to have dinner with me tonight?
Ann: — I'd love to, but I'll have to pick up my sister at the airport.

The knowledge that Ann has a sister and that she plans to pick her up wouldn't have become publicly known to the interlocutors if Bud hadn't made such an invitation. It was not necessary for Ann to tell Bud this piece of information except when the current situation requires so. Ann had to discuss her sister because her sister was Ann's excuse for not having dinner with Bud. In other words, the relevance of this piece of knowledge to the intention of the conversation makes it available as a part of common ground.

Assumed common ground is an integral part of the socio-cognitive view of communication. The three ways of constructing common ground occur within the interplay of intention and attention, and in turn the interplay of the two concepts is enacted on the socio-cultural background constructed by common ground. The processes in which we activate, seek, and create shared information are driven by relevance to the intention and realized with salience to attention. On the other hand, shared knowledge that we enjoy affects the formation of intention as well as the interplay of intention and attention, as has been explained in the socio-cognitive view.

6. Conclusion

This paper offers an alternative to existing approaches to common ground. It has made an attempt to integrate the pragmatic and cognitive view into a dialectical approach that emphasizes the decisive role of socio-cognitive factors in communication. In this socio-cognitive view, communication is considered the interplay of intention and attention motivated by the socio-cultural background. These tenets are interconnected; they affect and are affected by each other. Generally speaking, communication is an intentional action that is usually attended by adequate and sufficient attentional resources on the basis of common socio-cultural background.

The socio-cognitive view on assumed common ground within the confines of the DMM offers a more transparent description of sources and components of common ground, and the specific manners in which they join to influence the process of communication. This approach makes it possible to explain why

interlocutors are egocentric and cooperative at the same time. In the dynamic creation and constant updating of common ground speakers are considered as “complete” individuals with different possible cognitive status, evaluating the emerging communication through their own perspective.

Constructing common ground occurs within the interplay of intention and attention, and in turn the interplay of the two concepts is enacted on the socio-cultural background constructed by common ground. In this sense common ground plays not only a regulative but also a constitutive role in communication. The processes in which we activate, seek, and create shared information are driven by relevance to the intention and are realized with salience to attention. On the other hand, shared knowledge that we enjoy affects the formation of intention, the attraction of attention, and the interplay of intention and attention.

One of the main advantages of the socio-cognitive approach is that it eliminates the conflicts between the pragmatic and cognitive approaches to common ground by integrating them into a holistic picture that offers an emergence-through-use view of common ground. Further research, especially empirical research, is needed in order to clarify the nature and consequences of the interplay of intention and attention as related to relevance and salience.

Notes

1. The primary versus secondary distinction is different from Wilson and Sperber's (1986, 2004) informative versus communicative distinction, which is borrowed from Grice's hypothesis of a double intentionality.
2. This is only a brief division of different levels of attention involvement. More accurate observations need to be done in cognitive empirical studies.
3. We dub it mind-paralyzed state in that the interlocutors lose (temporarily or permanently) the ability to control their conscious action in their desired way.
4. The first is analogous to Giora's most salient meaning, the second is analogous to the contextual selection of meaning, while the third is untouched in Giora's GSH theory.

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