INTERLOCUTORS-RELATED AND HEARER-SPECIFIC CAUSES OF MISUNDERSTANDING: PROCESSING STRATEGY, CONFIRMATION BIAS AND WEAK VIGILANCE

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Abstract
Noises, similarities between words, slips of the tongue, ambiguities, wrong or false beliefs, lexical deficits, inappropriate inferences, cognitive overload, non-shared knowledge, topic organisation or focusing problems, among others, may cause misunderstanding. While some of these are structural factors, others pertain to the speaker or to both the speaker and the hearer. In addition to stable factors connected with the interlocutors' communicative abilities, cultural knowledge or patterns of thinking, other less stable factors, such as their personal relationships, psychological states or actions motivated by physiological functions, may also result in communicative problems. This paper considers a series of further factors that may eventually lead to misunderstanding, and which solely pertain to the hearer: processing strategy, confirmation bias and weak vigilance.

Keywords: misunderstanding, processing strategy, confirmation bias, epistemic vigilance, hermeneutical vigilance

1. Introduction

Communication is sometimes impinged by a frequent and ubiquitous phenomenon in intracultural and intercultural contexts: misunderstanding (Weigand, 1999; Blum-Kulka and Weizman, 2003). Often perceived as disruptive, it is basically manifested by interlocutors' failure to understand each other due to the characteristics of their language or their performance (Bazzanella and Damiano, 1999; Dascal, 1999). Stable factors, such as cultural knowledge or ways of thinking, and less stable ones, like relationships, psychological states or physiological actions, may impede the speaker's [1] performance (Mustajoki, 2012). Consequently, hearers may arrive at unwanted interpretations, although they may also misinterpret because of errors in the inferential tasks in comprehension (Yus Ramos, 1999a, 1999b).

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[1]   The feminine third person singular pronoun will refer to the speaker, while the masculine one will refer to the hearer.

This paper expands on those stable and unstable factors by showing that they may also influence processing and cause misinterpretation. Drawing from work on different types of misunderstanding (Yus Ramos, 1999a, 1999b), this paper thus aims to complement Mustajoki's (2012) work, which focuses exclusively on speakers, and offer a holistic treatment of misunderstanding (Kecskes, 2010: 51). Furthermore, this paper also delves into additional cognitive factors that make hearers regard erroneous interpretations as acceptable: (i) processing strategy deployed, (ii) propensity to rely on seemingly correct and effortless output of cognitive tasks, and (iii) lack of alertness to possible false beliefs or mistakes in such tasks. In addition to *optimal relevance* (Sperber and Wilson, 1986/1995), these factors are argued to play a crucial role when opting for particular interpretations. These factors, furthermore, do not solely affect either intracultural or intercultural encounters, but communication in general; indeed, any conversation may be considered intercultural to the extent that the agents involved do not exactly share the same cultural background (Thomas, 1983; Sperber, 1996).

This paper starts by reviewing the nature, types and origins of misunderstanding. Since its disruptiveness may eventually separate interlocutors from an ideal of successful communication, this is next described through the machinery of relevance theory (Sperber and Wilson, 1986/1995; Wilson and Sperber, 2002, 2004). Then, an analysis is made of how the factors affecting speakers' performance, as discussed by Mustajoki (2012), may also hamper hearers' interpretation. This is followed by a presentation of the additional hearer-related factors causing assignation of plausibility to wrong interpretations. Finally, some suggestions for future research are given.

2. Understanding misunderstanding

Misunderstanding stems from a discrepancy between the meaning that the speaker envisages for a particular utterance or fragment and what the hearer actually interprets (Bazzanella and Damiano, 1999; Ryan and Barnard, 2009). As a result, the hearer's mental states are not modified as expected (Bosco et al., 2006: 1403) and the hearer, in turn, attributes non-occurrent intentions, misconceives actions or even changes his interactive patterns (Banks et al., 1991: 106).

Often alluded to through labels like *pragmatic failure* (Thomas, 1983) or *misfit* (Weigand, 1999: 763), misunderstanding is normally included under the broader category of *miscommunication* (Gass and Varonis, 1991). However, this noticeable difficulty in communication must be distinguished from other phenomena:

- *non-hearing*, or not perceiving the acoustic signal (Grimshaw, 1980: 45);
- *mishearing*, or perceiving and interpreting the acoustic signal and thinking that this is done correctly (Grimshaw, 1980: 51; Mustajoki, 2012: 232);
- *spurious non-hearing*, or overtly or covertly and evasively faking not to have heard for varied reasons – e.g. avoiding interpersonal conflict – (Grimshaw, 1980: 58; Mustajoki, 2012: 231-232), and
- *non-/partial/ambiguous understanding*, or incomplete understanding – i.e. getting the gist – and clearly indicating that this is the case (Ryan and Barnard, 2009: 47), because of being engrossed in comprehension of preceding discourse or in another activity (Brown, 1995: 34).

Misunderstanding is a completely distinct phenomenon originating in comprehension troubles at the explicit or implicit level of communication (Gass and Varonis, 1991; Weigand, 1999: 764; Yus Ramos, 1999a, 1999b). It may *overtly* surface in conversations, be *latent* or even fully *covert* and go unnoticed (Hinnenkamp, 2003: 61-65). Since it falls within the processing side, it has a cognitive nature and pertains to the hearer, who is unaware of not having understood correctly (Weigand, 1999: 769-770; Ryan and Barnard, 2009: 47). Its involuntariness differentiates it from other cases of miscommunication such as deliberate baffling or confusion for the sake of manipulation or deception (Banks et al., 1991: 106), creating solidarity (Weizman, 1999), acquiring, modifying, expanding or coordinating knowledge (House et al., 2003: 2), or gaining prestige by means of language play (Hinnenkamp, 2003: 70-71).

The responsibility for misunderstanding, however, cannot be solely attributed to the hearer: on many occasions participants are co-responsible, as they jointly co-construct it through their reactions to what is said when negotiating meaning (Codó Olsina, 2002: 39). Speakers and hearers are equal participants in communication inasmuch as they have to produce language and comprehend it (Kecskes, 2010: 51). Therefore, the speaker's share is underscored in some taxonomies. For instance, Dua (1990: 115-119) distinguishes speaker-based misunderstanding, which is due to problems to conceptualise intentions, failure to express them properly or avoidance of expression of intentions for social reasons, and hearer-based misunderstanding, which encompasses non-/partial hearing, mishearing and non-/partial understanding. Likewise, Banks et al. (1991: 106) differentiate misstatement, which is caused by expressive mistakes, from misinterpretation, which arises from interpretive errors. Apparent expressive infelicities may be motivated by (differing) cultural knowledge, the speaker's cognitive system, [2] social relations, emotional or psychological states and the contextual information available to her

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[2]   This refers to how individuals usually solve problems, think, perceive and remember (Allport, 1937).

(Mustajoki, 2012; more on this below).

Other taxonomies, on the contrary, centre on the causes of misunderstanding. Weigand (1999: 774-781) singles out misunderstandings stemming from flaws in the communicative *means* – i.e. phonology, lexicon and syntax (linguistic means); gestures (perceptual means), and inferences (cognitive means) – and *purpose* misunderstandings, which result from failure to understand the *predicative function* – what words mean – the *referential function* – what is talked about – or the *action function* – the action accomplished. From a cognitive-pragmatic angle, Bosco et al. (2006: 1404-1405) similarly identify three major causes:

a.   *failure of expressive act*, or mistaking utterance value;
b.   *failure of actor's meaning*, or distinct construal of the speaker's intentions, and
c.   *failure of communicative effect*, or undue modification of the hearer's mental states and rejection to engage in some activity.

Lack of coherence (Verdonik, 2010: 1370), vagueness and ambiguity (Ardissono et al., 1998; Keysar and Henly, 2002; Jucker et al., 2003; Keysar, 2007; Shintel and Keysar, 2009), and unattainable explicitness (Dascal, 1999: 755; Ferreira et al., 2005; Verdonik, 2010: 1368-1375) also feature as conspicuous causes. In intracultural and intercultural communication, diverse cultural information undoubtedly also plays a major role (Banks et al., 1991; Tannen, 1991, 1992, 1994; Zamborlin, 2007). The manifold causes of misunderstanding may be divided into (Bazzanella and Damiano, 1999: 820-821):

a.   *Structural factors*: disturbances in the channel (e.g. noises), similarities between linguistic elements or troubles caused by a foreign language.
b.   *Factors related to the speaker*, which include *local* ones, like slips of the tongue, misconceptions or ambiguous forms, and *global* ones, which are contingent on how she structures and presents information.
c.   *Factors related to the hearer*: knowledge problems (e.g. false beliefs, gaps in belief box, lexical deficits) and faults in cognitive processes (e.g. wrong inferences, cognitive overload).
d.   *Factors related to both interlocutors*: non-shared knowledge, topic organisation or focusing problems.

Undeniably, misunderstanding unveils problematic, troubled or strained communication where interlocutors, momentarily or more persistently, drift apart from the joint endeavour of mutual understanding (Dascal, 1999; Weigand, 1999). This is essential for communication to succeed in both intracultural and intercultural contexts, as efficient transmission of intended messages and correct comprehension are crucial.

3. Successful communication

Communication is a circular process wherein a minimum of two agents continuously interchange roles as conversations unfold (Brown, 1995; Mustajoki, 2012: 219). The speaker may be characterised by *benevolence*, or sincerity, and *competence*, or adequate command of the grammar of her language and its norms of usage (Sperber, 1994). When engaging in a conversation, the speaker makes it clear that she has something to say and wants the hearer to be aware of it. Therefore, she has two intentions (Sperber and Wilson, 1986/1995: 58, 2015: 139):

a.   An *informative* intention, or willingness to *make manifest* to a hearer or audience a series of assumptions or propositions amounting to a particular message.
b.   A *communicative* intention, or purporting to make manifest that she indeed has that very message to communicate.

The speaker gives indirect evidence of her more or less full-fledged informative intention by means of utterances, which are intentional stimuli that draw the hearer's attention. Communication succeeds if the hearer arrives at the intended message by forging an adequate mental representation – i.e. by means of *metarepresentation* (Wilson, 1999; Sperber, 2000) – of the speaker's informative intention.

However, speakers are not sometimes fully conscious of all the thoughts or beliefs they entertain; they may have *impressions* or arrays of propositions that become manifest and may affect inferential processes (Sperber and Wilson, 2015: 135-138), so they cannot express them with precision. On other occasions, speakers lack, do not use or cannot think of the appropriate expressions to communicate messages in a precise manner. Moreover, their language may lack the necessary expressive means enabling them to communicate successfully. Indeed, there may always be "[…] many more meanings than words and expressions in any language" (Mustajoki, 2012: 221). Therefore, utterances may only vaguely unveil intended messages, what speakers intend to do with their words or their feelings and/or attitudes to something (including messages) or to other people (including addressees). Utterances are not but sketchy plans for making manifest informative intentions and roughly approximate to the speaker's thoughts (Jucker et al., 2003: 1742).

Successful communication highly depends on an adequate match between informative intention and the utterance employed to make it manifest (Mustajoki, 2012: 231). Correct understanding, in turn, requires that the hearer constructs a proposition that accurately captures the speaker's informative intention, which involves making the types of inferences the speaker intends (Sperber and Wilson, 2015: 147). Reduplication of thoughts is virtually impossible because of differences in conceptual repertoires and the encyclopaedic information attached and/or experience of feelings. What the

hearer must form is a mental representation that is similar enough to the one the speaker entertains. Forming that representation depends on decoding, inference and mindreading, which are jointly put to work in a process of *mutual parallel adjustment* (Carston, 2002; Wilson and Sperber, 2002, 2004).

Mutual parallel adjustment yields an *interpretative hypothesis*, which may or may not correspond to the speaker's informative intention. The *effort* this process requires is normally offset by *cognitive effects* (Sperber and Wilson, 1995: 260). When the balance effort-effects is satisfactory, a hypothesis is *optimally relevant* (Sperber and Wilson, 1995: 210). Hearers usually presuppose that speakers will aim for the most adequate effort-effect balance depending on their abilities – i.e. competence, the skills underlying performance – and preferences – i.e. the goals pursued (Sperber and Wilson, 1995: 270; Mazzarella, 2013: 33-35). Although there always is information, or ways to dispense it, which hearers might consider less effort-demanding and more effect-yielding, they must assume that speakers choose the best formulation possible to make their informative intention manifest.

Expectations of optimal relevance pervade mutual parallel adjustment, so interpretative hypotheses are formulated through the path of least effort and maximum effects possible (Wilson, 1999; Wilson and Sperber, 2002, 2004). This amounts to deploying an easy and simple cognitive strategy (Padilla Cruz, 2012): *naïve optimism*, whereby hearers assume speakers' benevolence and competence (Sperber, 1994; more on this below). Upon finding an interpretative hypothesis satisfying their expectations of relevance, hearers may conclude that it is the message the speaker intended to communicate.

Mismatch between informative intention and utterance, inability to find optimally relevant interpretations, mistakes in mutual parallel adjustment or accepting interpretative hypotheses which, despite optimal relevance, do not correspond to actual speaker's informative intention may make communication fail in both intracultural and intercultural contexts. Any of these may happen because of a series of factors (Mustajoki, 2012), whose impact on both interlocutors is discussed in the following section.

4. Causes of misunderstanding

Successful intracultural and intercultural communication depends on the interlocutors' performance, which is determined by their communicative abilities. These, in turn, may be affected by temporary or enduring intellectual and emotional dispositions, as well as by external variables of a social nature and/or actions motivated by physiological functions (Mustajoki, 2012: 223-224).

4.1. Stable causes

4.1.1. Communicative abilities

Producing grammatically correct and pragmatically appropriate utterances and interpreting them satisfactorily is the crux of communication. This ability is often referred to as *communicative competence* (Hymes, 1972) and rests squarely on a set of intertwined sub-competences: mastery of the code (*grammatical/linguistic competence*), capacity to arrange elements coherently and cohesively (*discourse competence*), knowledge of sociocultural rules of usage (*sociolinguistic/sociocultural competence*), command of ways to associate intentions to utterances (*actional competence*) and control of diverse communicative strategies (*strategic competence*) (Canale, 1983; Bachman, 1990; Celce-Murcia et al., 1995). Exposure to language and interaction result in the internalisation and progressive sophistication of this toolkit enabling individuals to create linguistic expressions anew despite the limited inventories of languages and to understand them correctly (Kecskes, 2004, 2007).

Communicative competence, however, does not automatically involve constantly adequate performance. Competence is comparative and gradual: individuals may be more or less competent than others or have a particular sub-competence that is either more or less developed. It is also temporary due to variation on specific occasions. Incompetence may be occasional and surface in errors like slips of the tongue (Thomas, 1983), but it may also be more persistent, as in the case of non-native speakers or learners of a second language (L2). In addition to insufficient command of grammar and a 'broken' accent – which, depending on their interlocutors' condescendence, may hinder understanding – non-native speakers often have lexical lacunae, lack the appropriate formulae to accomplish some speech acts (Bardovi-Harlig, 2002), translate directly from their native language or resort to weird or puzzling, albeit innovative, formulae. Furthermore, despite familiarity with adequate target language strategies, non-native speakers may not control them, and may employ them at the erroneous moment, with the wrong interlocutor or in the incorrect place (Bialystok, 1993).

Linguistic deficits or improper expressive tools may prevent speakers from making manifest their actual informative intention straightforwardly and effortlessly. Selection of inadequate words to name objects (1), erroneous expressions to refer to preceding discourse elements (2), wrong deictics to locate objects spatially and/or temporarily (3), and mispronunciation (4) may all cause the hearer to construct *alternative explicatures* (Yus Ramos, 1999a, 1999b):

(1)   [Said by a Spanish learner of English]: They are building a very, very large *scratch-sky* in Seville. ['sky-scraper' in Spanish is 'rascacielos', a compound consisting of 'rascar' ('scratch') and 'cielos' ('sky')]

(2)   [Said by a Spanish learner of English]: And Peter saw the mosquito on the wall. Tom
        was going to use *her* slipper to kill *him* but taked the spray and finally killed *him* [the
        italicised pronouns were used to refer back to Peter and the mosquito].

(3)   Give me this on top of there! [Give me that one over there!]

(4)   A: Well, my son is [ɔːˈtɪstɪk] [= autistic]
        B: Congratulations! [Having understood 'artistic'] (From Wells, 1996)

In turn, inappropriate intonation may yield inadequate higher-level explicatures.
This results in puzzling understanding, as the hearer misconceives the speaker's
intentions or attitude (Yus Ramos, 1999a, 1999b):

(5)   [Said by a waiter at a self-service restaurant when asking a diner whether he wanted
        sauce]: `Gravy [Falling instead of rising intonation made the offer sound as an order]
        (From Tannen, 1984)

Translation of paralinguistic strategies may also induce hearers to reach
alternative implicatures (Yus Ramos, 1999a, 1999b). These become *detrimental*
if hearers misattribute unwarranted intentions to speakers (Escandell Vidal,
1998). For instance, during an internship as a hotel receptionist, a Spanish
student of English for the Tourism Industry was unduly perceived as rude
because of requestive strategies like those in (6):

(6)
        a.   Give me your ID. [In Spanish the imperative mood frequently signals requests]
        b.   Can you give me your ID? [Instead of 'Can/could/may I have your ID?']
        c.   Do you give me your passport/ID? [Direct translation of '¿Me da(s) su/tu DNI?

Inappropriate expressive choices may also be motivated by speakers'
egocentrism, which prevents them from taking into account hearers'
perspectives and, hence, how they might interpret what is said (Keysar and
Henly, 2002; Keysar, 2007; Kecskes and Zhang, 2009). By solely relying on
their knowledge, beliefs or desires, speakers think that their informative
intention is clear enough and refrain from investing the necessary cognitive
effort to consider other more efficient formulations (Todd et al., 2011: 134). This
is what happened to a Spanish landlady who narrated a series of events to an
American student:

(7)   Pues estaba hablando con la dependienta y entra Pablo. Bueno, y va y me pregunta si me
        quedaba bien la talla. Y entonces *le* pregunto si había hablado ya con Marta y si habían
        quedado ya para después, para las copas.
        'So I was talking with the shop-assistant, and Paul walks in and (Ø subject = 'she', the
        shop-assistant) asks me if the size fits. And then I ask (indirect object pronoun for both
        masculine and feminine [him = Paul]) if (Ø subject = 'he', Paul) had already talked
        to Marta and if (Ø subject = 'they', Paul and Marta) had made plans for later, to grab
        drinks.'

Although everything was clear to the landlady, the student could not understand
correctly whom or what was alluded to because of pronoun dropping in Spanish
and lack of gender distinction in the third person singular pronominal form for
the indirect object.

   Speakers' performance mistakes are not exclusively responsible for
misunderstanding. Mutual adjustment is amenable to flaws and may yield
seemingly relevant, but unintended interpretations. Wrong reference assignment
(8), disambiguation (9) or conceptual adjustment (10) may result in faulty lower-
level explicatures:[3]

(8)   [Said in a kitchen where different items of furniture are visible]: Leave the knife *here*!
        [The hearer leaves it on the table, but the speaker meant on the shelf]
(9)   They are hunting dogs. [They are [hunting dogs] vs. [They are hunting] [dogs].
(10)   Oh, so *this* is leaving *this place*! [While driving and looking for a parking space, the
        speaker alluded to a shop changing location; the hearer understood 'this' as referring to a
        car that was about to leave a space and adjusted 'place' as meaning 'parking space']

Culture-specific concepts may also hinder the construction of lower-level
explicatures (Janicki, 2010; Wierzbicka, 2010). Precisely, vocabulary and jargon
prevented another American student from understanding an explanation of a
Holy Week procession in Seville. To him, terms like 'capataz' ('foreman'),
'costalero' ('float-carrier') or 'martillo/llamador' ('knocker'), and the action of
doing a 'levantá', were practically undecipherable:

(11)   Y el *capataz llama* a los *costaleros* con el *martillo* o *llamador*, se ponen debajo de la
        trabajadera, hacen la *levantá*, la *música* suena y el *paso* comienza a *andar*.
        'And the foreman calls the float-carriers with the 'hammer' or knocker, they place
        themselves under the trabajadera, they raise up the float, the music starts to sound and the
        float starts to move.'

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3   See Padilla Cruz (2013a, 2013b) for more examples.

4.1.2. Cultural knowledge

People forge and accumulate an immense pool of cultural *metarepresentations* about reality. Since reality is perceived differently due to accuracy and attuning of sensory mechanisms and interpreted on the basis of previous knowledge, experience, identity or ideology, those metarepresentations are *interpretive* and their contents vary across individuals. Through speech, behaviours, social institutions and emblems, individuals make those metarepresentations public and share them, although their contents may be modified, even if minimally (Sperber, 1996).

Some metarepresentations are relatively stable and concern, for instance, frequently accepted means to achieve specific goals, usual meanings of expressions, expected or proscribed behaviours, etc. Their usefulness favours them remaining unquestioned or unchallenged (Mercier and Sperber, 2011: 66). They are stored in a domain-specific mechanism: the *social categorisation system* (Barkow et al., 1992), which performs two tasks (Escandell Vidal, 2004):

  a. Creating, revising and updating a database about expected or proscribed behaviour.
  b. Analysing, categorising and assessing behaviours on the basis of the information in the database.

Cultural metarepresentations feed inferential processes, although individuals are unaware of those actually supplied as implicated premises (Mercier and Sperber, 2011: 58).[4] Across cultures those metarepresentations evidently vary (Sperber, 1996; Žegarac, 2009), but individuals often seem to ignore this (Keysar and Henly, 2002). They are affected by the *common ground fallacy* and, therefore, believe that their interlocutors access the same cultural knowledge (Mustajoki, 2012: 228-229). This complicates communication, as when the Spanish landlady explained the procession to the American student (11): she thought that, after having been in Seville for months, the student would already know how floats move, what float-carriers do, the music played by the band, etc.

Difference in or lack of cultural knowledge result in *alternative implicatures* or *missing implicatures* (Yus Ramos, 1999a, 1999b). Practitioners in intercultural and cross-cultural pragmatics have extensively documented misunderstanding due to behaviours assigned differing values by individuals belonging to diverse cultures (Padilla Cruz, 2013a). This is why the (excessive) indirectness of Polish or Hebrew requests is sometimes perceived as impolite (Blum-Kulka, 1992; Wierzbicka, 1991), the mitigation of requests through positive-politeness strategies by Uruguayans sounds rude to British interlocutors who prefer negative politeness (Márquez-Reiter, 1997), negative-politeness strategies used by some Eastern children to mitigate is often perceived as

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4   Inferential processes wherein individuals are unconscious of the beliefs fed are *intuitive*, while those wherein they are aware of them are *reflective* (Sperber 1997; Mercier and Sperber 2011).

overpolite (Ide, 1989; Kataoka, 1995) or small talk may be interpreted as intrusive (Reynolds, 1995).

4.1.3. Cognitive systems

Growth and experience determine styles or patterns of thinking, some of which may even be group- or culture-specific. People create distinct connections between or shortcuts to information, and access to it depends on attention and/or memory activation. Although the manifest physical environment, mutual, factual and encyclopaedic knowledge, non-verbal behaviour and previous stretches of discourse are likely to make up an initial interpretive context (Yus Ramos, 2000), the same information may not be actually manifest to different individuals. Unawareness of specific information may result in differing or missing implicatures (Yus Ramos, 1999a, 1999b).

Not realising that the melted chocolate topping on his waffle was dripping made an American student miss the intended implicature (13) in (12), as his reply evidences. His interpretation of his interlocutor's remark as a token of appreciation was also motivated by inability to understand the polysemy of the verb 'ponerse' ('getting dirty', 'pig out'):

(12)   A: ¡Anda, cómo te estás poniendo!
         'Gosh, you are getting it all over yourself!'
         B: ¡Oh, sí! ¡Mi waffle está muy bueno! ¡Sí! ¡Muy bueno!
         'Oh, yeah! My waffle is delicious! Yeah! Delicious!'

(13)
         a.   The chocolate topping on your waffle is dripping.
         b.   Your trousers are getting dirty.
         c.   You are getting stains on your trousers.
         d.   You should put a napkin under your waffle.

Another American student, who was lying under the sun on the Faculty grass while skipping a class, also failed to grasp the reproach (15) hidden in his interlocutor's comment (14). Since the morning invited to anything but to attending class, his response suggests that he derived alternative implicatures like those in (16) as a consequence of having activated a mental frame wherein a gorgeous sunny morning is associated with what he was doing:

(14)   A: ¡Vaya mañanita nos estamos pegando! Se está ahí bien en el césped, ¿no?
         'Wow, you're having a gorgeous morning! It's nice there on the grass, isn't it?'
         B: Oh, sí, sí, muy bien, sí.
         'Oh, yeah! Very nice, yeah!'

(15)   You should be in class.

(16)

     e.   I would also do that in these circumstances.

     f.   I would love to join you.

4.2. Unstable factors

Other factors are likelier to vary across individuals and situations (Mustajoki, 2012: 224-226). Some of them have a sociocultural nature, while others are connected with the interlocutors' occasional states or actions.

4.2.1. Personal relationships

Social proximity emerges from companionship in shared activities and experiences, services and goods provided, concern shown for others, self-disclosure in discussions of personal ideas, opinions or confidences, or expression of sentiments (Hays, 1984). Low *social distance* (Brown and Levinson, 1987) may correlate with similarities in terms of knowledge because of high frequency of contact, familiarity or affect (Spencer-Oatey, 1996: 7).

Knowing each other involves getting and being used to ways of speaking and meaning. Speakers familiarised with their hearers assume that they can speak in specific ways or omit certain information because hearers may possess the knowledge needed for correct understanding. Indeed, hearers often succeed at inferring informative intentions because they repeatedly adjust words, disambiguate or pragmatically enrich expressions in a particular manner; are used to particular facial expressions and body movements, or can foresee expected premises. In intercultural contexts where contact is infrequent or established for the first time, there may obviously be knowledge differences leading to unacquaintance with ways of speaking.

Frequency of contact and familiarity, nonetheless, do not always favour mutual understanding. Envy, quarrels, anger or indifference may impede the construction of explicatures, bring to the fore assumptions that yield unwanted conclusions or block access to those necessary to draw expected conclusions. This was the case of two friends who, despite having got along well for more than a decade, were not on very good terms at a certain moment. They had made arrangements for their group of friends' yearly Christmas dinner and had already decided when but not where to have it. They ran into each other and one of them cunningly asked the rather ambiguous question in the first turn of (17) in order to find out if the other was willing to offer his house as the venue for the dinner. The latter failed to conveniently enrich the question and understood it as a question about his plans for Christmas, as his response and subsequent talk show. Moreover, he did not narrow 'the dinner' as referring to 'their group dinner':

(17)   A: Bueno, bueno, bueno, ¡pero que Navidad está aquí ya! ¿Tú ya tienes claro
         qué vas a hacer?
         'Oh, my God! Christmas is almost here! Do you already know
         what you're going to be doing?'
         B: Bueno, son fechas complicadas, de mucho ajetreo. Aún tengo
         que atar unos cuantos cabos.
         'Well, these are complicated dates, with a lot of hustle and bustle.
         I've still got to tie up some loose ends.'
         A: Ya, claro. Bueno, ¿y para la cena?
         'Yea, sure. And for the dinner?'
         B: Nada, tío; la cena en familia.
         'Nothing, man; dinner with my family.'
         A: Me refiero a la nuestra.
         'I mean our dinner.'
         B: ¡Ah, vale! Mejor nos vamos a tomar algo en la calle.
         'Oh! It'd be better to go grab something somewhere.'

Social hierarchies, along which people occupy diverse positions, may be culture-specific and generate expectations about what is permitted or unacceptable. Although distance from higher-status individuals may correlate with indifference in some cultures, superiors are sometimes felt close and liked in others – depending, obviously, on personal traits. Closeness, however, does not always entail smooth relationships (Padilla Cruz, 2005). Bosses, managers or employees in some countries have specific expectations about how utterances should be understood and their identities determine how utterances are actually understood. This is what happened to the Spanish boss of an Italian employee when uttering (18):

(18)   Convendría que sacaras, comprobaras y colocaras el pedido en algún momento.
         'It would be nice if you took out, checked and stored the orders at some point.'

The employee did not understand 'en algún momento' as meaning 'immediately', which the boss used together with the conditional for the sake of considerateness. Consequently, the boss reprimanded the employee before the afternoon shift for not having done any of those tasks.

4.2.2. Psychological/physiological states and actions related to physiological functions

It is virtually impossible not to be affected by certain psychological or physiological states and/or actions performed in physiological functions. Feelings like happiness, euphoria, sorrow, sadness, melancholy, anger, wrath, surprise, astonishment or puzzlement, and states like illness, tiredness, boredom, absent-mindedness, drunkenness, drowsiness or depression, jointly or separately, influence how people speak and understand. These feelings and states may

lessen the interlocutors' cognitive abilities and impede the formulation of messages, identification of manifest contextual elements and/or mutual adjustment. Moreover, actions motivated by physiological functions like swallowing, sipping, gulping or sneezing may cause fluency problems that hinder expression or distract hearers. *Emotional overdrive* may even condition interlocutors' preferences (Mustajoki, 2012: 229), particularly in emergency situations, where speakers excessively concentrate on the message and may ignore its form and what this may inadvertently and unintentionally communicate, and hearers may adjust explicit and implicit import erroneously.

A serious argument had made two Spanish close friends very angry at each other. Some days after the argument, they had to buy a present for a mutual friend's recently born baby. Over the phone, A suggested to look for the present on a particular afternoon, but B had already made plans and said:

(19)   B: Estoy por el centro ahora mismo. Puedo pasar por alguna tienda y veo algo.
         'I am in the city centre right now. I can pop into some shops and have a look.'

Although B's intention was be helpful, A misunderstood his offer because he thought that popping into shops and having a look implied definitely buying the present. His response unveils that he associated mutual anger with reluctance to be involved in any joint activity, which made A misattribute the intention to buy the present to B:

(20)   ¡Ni se te ocurra comprar nada! ¡No, no! ¡No sin que yo lo vea! ¡Pero vamos! ¿Tú qué te
         crees, que vas a comprar lo que te dé la gana? ¡Ni hablar! ¡No, no, no! Vamos los dos
         juntos y vemos lo que sea, que capaz eres de comprar cualquier mamarrachada.
         'Don't even think about buying something! No, no! Not without me seeing it! Hey, man!
         What are you thinking? Buying whatever you feel like? No way! Absolutely not! The two
         of us will go together and have a look because you could easily just buy any old
         monstrosity.'

Psychological states may bias individuals to access idiosyncratic or cultural frames where some actions or behaviours are assigned very specific values. If such frames vary across cultures and individuals, access to them may turn out troublesome. Similarly, actions involved in physiological functions may complicate uttering and comprehension. When a lingua franca that is not fully mastered is the means to communicate, such actions may difficult mutual understanding.

5. Additional hearer-related causes of misunderstanding

Impeded interpretive abilities may certainly result in undesired interpretations accidentally achieving an optimal level of relevance (Wilson, 1999) and, hence,

appearing acceptable. The processing strategy deployed, a tendency to preserve interpretative hypotheses, and insufficient *vigilance* to the appropriateness of those interpretations may additionally cause hearers to trust erroneous interpretations.

5.1. Processing strategy

Hearers follow the path of least effort and maximum benefit and stop upon finding interpretative hypotheses satisfying their expectations of relevance (Wilson, 1999; Wilson and Sperber, 2002, 2004). This procedure is naïve optimism (Sperber, 1994), a simple and commonsense processing strategy that is almost automatically deployed (Padilla Cruz, 2012). A naïvely optimistic hearer presupposes not only the speaker's benevolence and competence, but also his own competence as an interpreter.

Unfortunately, naïve optimism may not lead to the actual informative intention. The psycho-physiological factors discussed may cause expressive or interpretive mistakes conducive to unintended interpretations that may accidentally achieve optimal relevance (Wilson, 1999). Regardless of whether it is the speaker or the hearer's fault, reaching an interpretation that appears optimally relevant suffices for (unknowingly) believing it to be intended and, therefore, to accept it as the informative intention. Naïve hearers do not consider the possibility that expressive or interpretive mistakes happen. They simply engage in the relevance-driven heuristics, construct interpretative hypotheses and accept them without questioning their plausibility.

Deployment of naïve optimism may explain misunderstandings like those in (12), (14), (17) and (19, 20): hearers took for granted their interlocutors' or their own appropriate performance, relied on erroneous interpretative hypotheses that accidentally achieved optimal relevance and did not wonder whether other interpretations were possible. In intercultural communication, naïve and optimistic hearers may not question the correctness of, for example, conceptual adjustment (12) or the appropriateness of contextual assumptions supplied as implicated premises (14), above all if these have a cultural status. However, failure to detect expressive or interpretive mistakes and persevering in the (wrong) belief that a particular interpretation is intended are motivated by additional cognitive factors.

5.2. Confirmation bias

Interpretative hypotheses depend on the evidence for the informative intention and reasonably effortless, allegedly correct and satisfactorily effect-yielding mutual adjustment. They are ultimately accepted because of a cognitive tendency to "[…] hang on to […] favoured hypotheses with unwarranted

tenacity and confidence" (Klayman, 1995: 385): *confirmation bias*.[5] This tendency makes hearers persevere in the beliefs that (i) the evidence for the informative intention is appropriate, and (ii) they carried out mutual adjustment correctly, so they retain an interpretative hypothesis and trust it.

The mind is always limited as regards the tasks it performs and the heuristics it deploys. Hearers rely on a particular hypothesis and consider it correct if it does not require much effort (Friedrich, 1993: 298), there is available or easily accessible supporting evidence (Kunda, 1999: 94) and the hypothesis seems a reasonable output of cognitive processes (Nickerson, 1998: 198-200). Confirmation bias inclines hearers to "believe too much" in (linguistic) information backing up a certain hypothesis and in their cognitive skills, above all if they easily perceive that information and can construct a hypothesis. Consequently, they feel reluctant to discard it (Klayman, 1995: 385-386). Immediate access to candidate referents, easy and (seemingly) logical disambiguation, straightforward recovery of elided material or clear perception of paralanguage evidencing particular attitudes, feelings or speech acts may bias hearers to assume that the results of these tasks are error-free and to accept them as correct. As naïve hearers, they do not suspect that there could be other outputs, but think that they performed them aright. This is what made the hearer of (5) automatically interpret the waiter's falling intonation as an order and the hearer of (8) place the knife on the table instead of on the shelf.

Confirmation bias may also make hearers retain conclusions about communicative behaviours derived from information available in the database of the social categorisation system. When that information does not exactly match the one that actually caused those behaviours, the system tends to interpret them on the basis of the unchallenged information it stores (Nickerson, 1998: 175). Accordingly, the system selects those items enabling it to make sense out of the behaviours in question and constructs some sort of logical argument that agrees with existing (cultural) beliefs or previous expectations (Mercier and Sperber, 2011: 63-64). Thus, the unexpected indirectness in some Hebrew or Polish speakers' requests or the mitigating positive-politeness strategies used by Uruguayans failed to achieve their intended purpose because their interlocutors blindly stuck to interpretations thereof based on the information about indirectness or such strategies stored in the database of their social categorisation system and did not question its appropriateness.

5.3. Weak vigilance

The complexity and speed of mutual parallel adjustment make it potentially liable to flaws or mistakes. While some of them may stem from the suitability and quality of the information employed, others may be due to how such adjustment is made. If mistakes and flaws go unnoticed, mutual adjustment

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[5] This is also alluded to as *perseverance of belief* or *hypothesis preservation* (Klayman 1995).

yields wrong interpretations that may seem plausible. Misunderstandings then arise when hearers unquestioningly rely on its output and unknowingly accept erroneous interpretations. Reliance on such hypotheses may be motivated by lack of *vigilance* of either the quality of the information employed – *epistemic vigilance* (Mascaro and Sperber, 2009; Sperber et al., 2010) – or the inferential tasks involved in mutual adjustment – *hermeneutical vigilance* (Padilla Cruz, 2014, 2015, 2016).

5.3.1. Epistemic vigilance

Interpretations are contingent on information coming from sources like perception or dispensed testimony. Individuals are therefore interested in using genuine information with a view to avoiding misinformation and/or deception. Information is filtered out on the basis of its truthfulness and informers are sorted out in terms of their reliability. This is possible thanks to a complex set of mechanisms that focus precisely on the quality of information and its various sources, and assess them as regards their credibility and infallibility.

As part of the human genetic endowment, those mechanisms generate an alertness to the possibility of being deceived or misinformed, and trigger a critical attitude towards information and informers: *epistemic vigilance* (Mascaro and Sperber, 2009; Sperber et al., 2010). This is essential to avoid blind, uncritical and naïve gullibility (Sperber et al., 2010: 363; Mercier and Sperber, 2011; Sperber and Mercier, 2012), as a result of which individuals are prone to indiscriminately believe anybody or any item of information, regardless of its source and availability of supporting evidence, or to regard information that even contradicts previous personal observation as true (Clément et al., 2004: 361-363). Epistemic vigilance creates the scepticism or caution necessary to preclude deception or acquisition of erroneous information; it is an ability enabling people to calibrate their trust in individuals and information (Mazzarella, 2015: 185).

Epistemic vigilance mechanisms evaluate the potential relevance of information, its coherence with information that is already stored, support or available evidence for its believability (Sperber et al., 2010: 374; Mazzarella, 2015: 187). They also take into account various factors determining trust allocation, such as beliefs about other people, their reputation, moral commitments or signals connected with competence or knowledge, like assertiveness, certainty, hesitation, nervousness, gaze direction, eye contact, etc. (Origgi, 2013: 224). On average, these mechanisms are moderately activated and fulfil their functions satisfactorily. However, they may be weakly activated because of allocation of cognitive effort to other tasks, or strongly activated if risks of deception or misinformation are detected. The stronger their activation, the likelier misinformation and deception can be avoided (Michaelian, 2013; Sperber, 2013).

Raising the activation of vigilance mechanisms involves introspection and self-awareness of a series of external and internal factors. Among the former are

cultural norms determining trust in types of people or information about states of affairs, while among the latter are emotional reactions and biases towards people and states of affairs. Thus, individuals can trace the reasons for believing people or information and estimate the consequences that result from trusting them.

Weak vigilance or not exercising vigilance at all may also cause misunderstanding, as individuals may rely on inadequate beliefs to process utterances or on beliefs whose truthfulness is not duly proved. If those beliefs are supplied as premises, its wrongness or inaccuracy leads to wrong or inappropriate conclusions. Misunderstanding, then, may be due to failure to detect such inaccuracy or wrongness, correct it or look for more adequate information. In the case of the hearer of (14), believing that the speaker would love to be doing the same made him miss the intended reprimand. Had he realised the time and that his interlocutor did not actually believe that lying under the sun was probably the best thing to do while a class was taking place, he might have reacted otherwise. Likewise, the irate response (20) by the hearer of (19) was certainly motivated by having unquestioningly taken for granted idiosyncratic or culture-related beliefs referring to his interlocutor's unwillingness to go shopping with him, avoid meeting him or take into account his opinion about candidate presents because of their previous argument. If the hearer had questioned such beliefs, he might have interpreted (19) as a sincere offer to simply have a look at possible presents in order to speed up the search.

5.3.2. Hermeneutical vigilance

Raising vigilance also involves introspection and awareness of the heuristics deployed when drawing conclusions and tracing the beliefs and biases originating them. Active vigilance empowers individuals to reconstruct inferential steps or interpretative routes in mutual adjustment, so they can distinguish valid from erroneous inferences (Origgi, 2013: 226-227). Despite risks inherent to the *post factum* nature of the process (Carruthers, 2009), individuals may also bring to consciousness the factors and biases leading them to segment, parse and disambiguate input in a particular manner, select candidates for referential expressions, adjust concepts, recover elided material, construct attitudinal descriptions or supply some implicated premises (Padilla Cruz, 2016).

Vigilance mechanisms could therefore be argued to include a sub-set of devices specialised in assessing the plausibility of interpretative hypotheses. They trigger an alertness to mistakes in mutual adjustment or more plausible outputs thereof, which are not initially considered. Such alertness makes individuals scrutinise how they adjusted explicit and implicit content and look for flaws or more viable alternatives.[6] Since those devices target interpretations and aim at avoidance of possible mistakes, they would generate an attitude of *hermeneutical vigilance* (Padilla Cruz, 2014, 2015, 2016). If epistemic vigilance

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[6]   See Padilla Cruz (2016) for evidence adduced from the field of developmental psychology.

mechanisms result in a critical attitude towards beliefs and information that safeguards individuals from misinformation and deception, hermeneutical vigilance causes an alertness to misinterpretation and another critical attitude, but to interpretative hypotheses.

Individuals may also be more or less hermeneutically vigilant depending on circumstances, so that weak vigilance may result in interpretive mistakes or failure to arrive at intended interpretations. Accordingly, misunderstandings may also be caused by scarce or weak activation of hermeneutical vigilance and inability to detect either expressive or interpretive infelicities. Weak hermeneutical vigilance explains why the hearer in (4) congratulated his interlocutor: he did not realise that the speaker's regional accent made the word 'autistic' sound like 'artistic'. Similarly, if the hearer of (8) had been more hermeneutically vigilant, he would have checked if there was any other place where his interlocutor intended him to leave the knife instead of directly assuming that he had to leave it on the table.

5.3.3. Consequences of weak vigilance

Naïve hearers presuppose speakers' benevolence and competence, as well as their own competence. Detection of underperformance rules out those presuppositions and incites hearers to consider that speakers might have meant something else or that they should have arrived at another interpretation. A cautious attitude then emerges towards what is said and understood, which empowers hearers to question speakers' expressive abilities and their own interpretive abilities and prompts them to search for other interpretations. This is possible thanks to a more sophisticated processing strategy enacted after vigilance mechanisms notice expressive mistakes, belief falsity, errors or likelier options in mutual parallel adjustment: *cautious optimism* (Sperber, 1994).

Cautiously optimistic hearers do not accept seemingly relevant hypotheses. Rather, they move to a position of sceptical trust (Clément et al., 2004: 362) wherein they discard those hypotheses, undertake additional effort in order to re-adjust explicit and implicit content by considering distinct alternatives and beliefs, and formulate new hypotheses. Thus, hearers can solve misinterpretation caused by the speakers' or their own poor performance, arrive at actual informative intention, restore mutual understanding and ultimately avoid assuming that speakers sought to deceive or misinform them. Weak vigilance may block the enactment of cautious optimism and make misunderstandings persist.

Egocentrism often challenges communication. Speakers avoid or overcome it by actively *monitoring* hearers' reactions (Clark and Krych, 2004; Mustajoki, 2012: 226). This requires various (subconscious) acts like noticing if the hearer follows or understands. Monitoring depends on theory of mind abilities because speakers must reason about the mental operations hearers perform: they have to simulate hearers' mental actions internally in order to detect alleged interpretative problems (Perlis et al., 1998: 562; Bekkering et al., 2009; Shintel

and Keysar, 2009). Indeed, people mentally represent what their interlocutors must be doing at a certain moment, thus aligning themselves with their interlocutors (Garrod and Pickering, 2009: 293-294), which facilitates anticipation of (re)actions (Sebanz and Knoblich, 2009: 358). The ensuing adjustments in speech and paralanguage – e.g. repeating more slowly or loudly, rephrasing, paraphrasing, etc. (Clark and Krych, 2004; Berger, 2007) – evidence *hearer design* (Mustajoki, 2012: 227). Monitoring and hearer design make up a *miscommunication competence*, whereby speakers manage misunderstanding, negotiate meaning and restore mutual understanding (Perlis et al., 1998: 564). The risks inherent to intercultural communication evidently call for the development of such competence.

Hearers' awareness of competence deficits or underperformance is also necessary to manage and solve misunderstandings. Since smooth communication requires abilities to detect and repair expressive and interpretative failures (Perlis et al., 1998: 564), epistemic and hermeneutical vigilance, together with cautious optimism, may also be considered indispensable components of miscommunication competence: while the two forms of vigilance facilitate detection of mistakes, cautious optimism aims at repairing them. In the hearer, confirmation bias favours the acceptance of apparently relevant interpretations, while egocentrism precludes estimates of speakers' mental states. These two factors cause some *meta-blindness*, or "recalcitrant ignorance" (Medina, 2011: 29), about other minds and the performance of his own mind (Kecskes, 2010: 56).

Hearers overcome such meta-blindness when they behave as cautious individuals. As such, they deploy *meta-reasoning* and *meta-linguistic* skills that enable them to create some sort of conversation history where they bring back to consciousness what was said and how they interpreted it, and to wonder which other interpretation might be more adequate. This generates some sort of epistemic and/or hermeneutical friction between the initial interpretation and the alternative one, which is essential for a mistaken interpretation not to be retained and, therefore, for misunderstanding not to persist. Cautious optimism, then, is a form of *active logic* (Miller and Perlis, 1993) fostering abandonment of interpretative hypotheses in favour of others. Thanks to this, hearers can also align themselves with the speakers by considering what they might have meant and contribute to restoring mutual understanding. Not deploying it may hence render the restoration of mutual understanding a more complicate endeavour or even an ordeal, above all in intercultural contexts where interlocutors differ in terms of cultural knowledge, the impact of feelings on access to specific assumptions or frames, ways of speaking or adjusting explicit and implicit content, etc.

6. Conclusion

The stable and unstable factors identified by Mustajoki (2012) may also impact comprehension and make hearers fail to infer their interlocutors' informative intention. Three further cognitive factors may cause hearers to erroneously assign plausibility and credibility to interpretative hypotheses: an easy and simple processing strategy, confirmation bias and weak vigilance of either beliefs used or of the output of inferential processes. These factors, in addition to optimal relevance (Sperber and Wilson, 1986/1995), also play a crucial role in comprehension by determining the acceptance of interpretative hypotheses.

These additional hearer-specific factors may be interrelated. For instance, deployment of naïve optimism may correlate with low levels of vigilance and with an almost automatic tendency to take for granted the plausibility of interpretative hypotheses appearing optimally relevant, which precludes possible checks for mistakes or erroneous or inaccurate beliefs. In turn, weak epistemic or hermeneutical vigilance may result in failure to detect infelicitous interpretations and block the enactment of cautious optimism. Also, confirmation bias may be connected with the strength and usefulness assigned to one's own cultural information or with lack of access to the speaker's cognitive environment. Future research could look into the circumstances wherein vigilance mechanisms are activated or their activation increases, as well as into the external and internal factors that foster their activation. It would also be illuminating to analyse the connections between the quality of cultural information and awareness of the other person's cultural information and confirmation bias. Moreover, it would shed much light to examine if a high degree of confirmation bias conditions the type of vigilance that hearers exercise or if stronger vigilance has some effect on confirmation bias as a consequence of attempts to discover possible false beliefs or mistakes in mutual adjustment and, hence, to challenge initial interpretations.

Researchers could also assay the relation between confirmation bias and other personal characteristics to other personal characteristics, such as stubbornness, *ego boundaries* – i.e. potential openness or closeness to external influences and unknown situations (Hartman, 1991; Ehrman, 1999) – or *tolerance of ambiguity* – i.e. the capacity to perceive, understand and react to ambiguous and unfamiliar situations and stimuli (Furnham and Ribchester, 1995). Probably, *thick* ego boundaries (Ehrman, 1999) and little tolerance of ambiguity correlate with higher self-confidence in interpretive tasks and, hence, with a stronger inclination to stick to seemingly relevant and correct interpretations, weak vigilance and inability or reluctance to question their plausibility and to switch to cautious optimism. Finally, since cautious optimism may be triggered by strong vigilance as a way to overcome misinterpretation, further research could also explore if the deployment of this strategy has any influence on the amount of meaning negotiation necessary from interlocutors in order to restore mutual understanding once misunderstanding is noticed.

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