Meanings and Processes

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Abstract: In this paper, I present a conception of meaning in natural language that I call the 'process model'. According to this conception, meaning must be regarded as the result of a process of interaction in a community of cognitive-linguistic agents, with one another and with the environment. Drawing on this understanding, I argue that the study of meaning should no longer focus on logical analysis, but rather on an empirical perspective similar to the one in the other social sciences. I briefly compare this view with semantic Platonism,

as well as with Wittgenstein's and Quine's approaches to meaning. Finally, I outline a way in which this approach could be applied to two current problems in the philosophy of language: the treatment of linguistic vagueness and the definition of truth. The treatment of all these questions is very cursory, as a sort of travel guide for a future more detailed research.

Keywords: communication; environment; natural language; Platonic idea; social interaction.

0. Introduction

The present paper is divided into three sections – excluding this introductory one. In the first section, I present what I call the 'process model of meaning'. This view states that natural language meaning is the result of a process of interaction, amongst members of the cognitive-linguistic community, with one another and with the environment. I have already provided a first account of this conception in (Picazo, 2014), in the context of an analysis of truthmaker theory. Here I expand that characterisation in various respects, such as the social dimension of meaning, the way in which meaning depends on the interaction with the environment, and the way in which meaning can be understood as something that emerges from a set of material processes.

The second section of this paper is devoted to a brief comparison between the process model and other approaches to meaning, which uphold or oppose the process model in various ways. In particular, I address semantic Platonism – exemplified here by quotations from Augustine, Locke, and Frege. Then, I comment on some of the criticisms directed to semantic Platonism by Wittgenstein, Quine, and

Michael Dummett. Finally, I highlight some of the differences between the process model, and Wittgenstein's and Quine's views.

In the third and final section of this paper, I point out, by way of example, two philosophical problems on which the process model may shed some light, and some directions that should be explored in that respect. These two problems are: the treatment of linguistic vagueness and the definition of truth.

The present paper is hardly conclusive, as an outline of directions for future research that can elaborate these points in greater detail. Its purpose, then, is to serve as a sort of travel guide for that later research.

1. Meanings and processes

1.1. The process model of meaning in natural language is based on a very simple idea: meaning is the result of a process of interaction in a community of cognitive-linguistic agents, with one another and with the environment. This is not a reductive definition, because in order to know what a cognitive-linguistic community is, and in order to know what type of interaction is relevant for meaning, we previously need to be able to identify a language, and hence we previously need to be able to identify meaningfulness itself. However, the definition is informative inasmuch as it spells out the fundamental elements that give rise to meaningfulness – bringing them to our consideration, so that we do not overlook any of them.

An immediate consequence of this premise is that linguistic meaningfulness is just a social phenomenon, and it must be approached, as such, in a similar way as other social phenomena.

1.2. It is illuminating, in this respect, to compare the phenomenon of linguistic meaningfulness with fashion (a clothing fashion, for example). Fashion is an intrinsically social behaviour: it does not make sense to say that a person follows a fashion on her own. If only one person dresses in a certain way, then that way of dressing does not constitute a fashion. Paraphrasing Wittgenstein, it makes no sense to speak of a 'private fashion'.

On the other hand, a fashion does not consist only of many people dressing in a certain way. If they do so by obligation, or by chance, then that way of dressing does not constitute a fashion. By its own nature, a fashion requires an entanglement of social behaviours. A fashion requires a certain amount of imitation ('I like that coloured bracelet you are wearing'); a fashion requires a certain initiation ceremony ('buy yourself one, they are very much in vogue'); and a fashion requires a certain correction ceremony ('but not that one, that's too childish'). A fashion requires that a significant proportion of members of the community, consciously or unconsciously, accept the social coercion that goes along with fashion, and submit to it. When this does not happen – when, for instance, a clothing brand attempts to initiate a fashion and does not succeed – we say that such a fashion has not caught on, that it has not crystallised.

All these features apply to meaningfulness, as the social phenomenon it is. Thus, for instance, for a new word to enter into language, it must catch on, it must succeed in that complex sense in which a fashion catches on. Indeed, the members of the cognitive-linguistic community must accept the new word; they must use it; they must introduce it to those who are not acquainted with it; they must correct each other in the use of it; and they must be prepared to accept corrections when they arise.

Moreover, as in the case of fashion, meaning also cannot be dictatorially imposed: it requires the (generally unconscious) will of us-

ing a word or expression in a particular way. Thus, when a word is forbidden, a euphemism usually appears that replaces it; when we hear something that we know is being said out of mere obligation, we refrain from taking its communicative import at face value; and not even the declared intention of using a word in a particular sense proves that the word will mean that (there are many books, for instance, that introduce definitions or notational conventions, which do not consistently follow afterwards).

Finally, as in the case of fashion, it is impossible that an isolated person suffices to provide a word with meaning. This is so because meaning in natural language depends on communal behaviour, not on what a single person does. Even if a genuinely private language was possible – i.e., a language for self-communication, not dependent or subsidiary to natural language in any sense – meaning in such a language would be of a different character than natural language meaning. That would be so for the simple reason that the mechanism of fixation of meaning in natural language is a social one.

On the other hand, between meaning and fashion there are also differences worth noticing (besides the obvious ones: linguistic expressions communicate propositional content in a way that articles of clothing do not, etc). Indeed, in following a fashion the individual has more conscious control over her clothing choices, and it might be easier to trace the motivations for them, compared to the continuous and speedy choices between different usage alternatives that fluent conversation requires. Moreover, a piece of clothing, for example a hat, may continue to exist even though it is no longer in fashion, or nobody wears it anymore, while the meaning of the word 'hat' will disappear if everybody stops talking about hats[1].

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[1] This may sound strange, but it is a straight consequence of the process model of meaning. We will come back to this shortly.

1.3. In any case, the interaction process on which meaning rests is not only of a social character: it is also a process of interaction with the environment. Thus, for instance, the ground is the place where things fall down when there is nothing to hold them – save those which are very light, or fly. If things fall down to the ground, it is because of gravity, the attraction that Earth exerts on bodies that are in its proximity. If gravity disappeared, or we all moved to a place of zero gravity, the use of the word 'ground' would no doubt be affected.

On the other hand, food is that which suppresses hunger and gives us the necessary energy for living. This is how it is, in virtue of our biological constitution. If our biological constitution changed, and we never again felt hunger or had a need to eat, then the use of the word 'food' would no doubt be affected.

Neither gravity nor our need to eat are things that we do, but things that happen, or things that happen to us. Neither gravity nor our need to eat are, properly speaking, 'uses'. Consequently, although it is correct to say that we use the words 'ground' and 'food' in relation to these two natural phenomena, it is not completely correct to say that the use of these words exhausts their meaning. The meaning of these words requires that our use of them takes place in interaction with certain natural phenomena, without which that use – the use that these words presently have – would not be possible. It is for this reason that, for a complete explanation of meaning, taking into account these natural phenomena, and our interaction with them, is indispensable.

Moreover, it so happens that such kinds of natural phenomena help to fix the meaning, both in human language and in other animal communication systems, in a crucial way. Thus, for example, the location of a food source has a natural relevance for the community, and communicating it contributes to building up the community. Indeed, not only is there a common interest in eating, but often there

is an interest in cooperating with one another in finding food. Hence, the feeling of hunger when food is absent, combined with the feeling of satiety that eating brings about, crucially help to fix a meaning for that area of shared interest that we call 'food'.

1.4. Furthermore, the interaction with the environment may also help to explain the appearance of the first words of a natural language, in a particularly plausible way. Thus, for instance, the spontaneous uttering of a certain sound at finding food, especially one which anticipates the noise of chewing, might give rise to a ritual of imitation, in which a first onomatopoeia ('yum-yum') begins to take shape. At the beginning, it would not be a meaningful onomatopoeia, but a mere game consisting in uttering 'yum-yum' in the presence of food. Then, after a number of repetitions of the game, the following may occur, as if by chance: one day, a member of the community discovers a food location, goes back to the group uttering the onomatopoeia, and finds out that everybody else surrounds her and accompanies her until she shows them where the food is located. Even though this pioneer member did not at first have a communicative intention, but was only practising the game in non-standard circumstances (in the absence of visible food), the social response to her uttering inaugurates a new game: the game consisting in using the onomatopoeia 'yum-yum' as a communication instrument – as a way to alert the group that a food source (an opportunity to satiate hunger) has been discovered.

For this new use of the onomatopoeia to catch on, two things must become habit: firstly, when a member of the community finds a food source, she often goes back to the group uttering the onomatopoeia; secondly, when a member of the community comes back to the group uttering the onomatopoeia, the group often follows her with the hope of eating (anticipating salivation, for instance). Then,

we can say that we are before a genuinely communicative utterance: an utterance whose meaning will be delimited by the narrow range of socio-environmental actions with which the onomatopoeia is, at that moment, intertwined. I think it is not unreasonable to believe that the iterated practice of such games, through as many frustrated attempts and as many years of evolution as necessary, is at the origin of meaning in the first natural languages.

1.5. This view of natural language meaning is in complete opposition to the conception according to which meanings are 'floating ideas', waiting for a mind to grasp them[2]. In (Picazo, 2014, pp. 715–716) I compared the existence of meanings with the existence of rivers. A river is a material entity resulting from a set of material processes. Indeed, the existence of a river depends on the water cycle in its drainage basin, so that if that cycle is cut off, or seriously disturbed, the river will cease to exist. Meaning, for its part, is an immaterial phenomenon, but its existence is also the result of a set of material processes. Indeed, meaning is the result of the interaction amongst members of the cognitive-linguistic community, with one another and with the environment. For a meaning to exist, the relevant kind of social interactions has to take place. Just as a clothing fashion, or many other social phenomena, meaning is an immaterial phenomenon that emerges from behaviour and from other material processes that occur in human societies.

This is why I said before that the meaning of the word 'hat' will disappear if everyone stops talking about hats. The very talking about hats is, under my conception, like a hydrological cycle that feeds the

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[2] The use of the phrase 'floating ideas' in this context was suggested to me by José López Martí. In (Picazo, 2014, p. 726) I wrote: '[M]eaning[s] … are not static entities which float in the air'.

river comprising the meaning of the word 'hat'. According to this, if everybody stops talking about hats, the delimitation of the concept of a hat disappears, it ceases to be fixed inside its particular limits. This is so because, under this conception of meaning, what fixes those limits is the social use of words corresponding to the concept of hat, i.e., the practice and mutual recognition of communicative uses of such words[3].

On the other hand, the fact that a concept has been lost does not mean that it cannot come back to existence. A lost concept can indeed come back to life, just as a dried river can come back to life if it starts raining again in its drainage basin, and water begins to flow through it again on a regular basis. In this sense, it is interesting to note that when a lost concept is reconstructed from historical evidence, one of two things can happen: either the members of the new linguistic community are not interested in making use of the reconstructed concept – but only in investigating the old use – or they intend to use it again for genuine communication with one another.

In the first case, the only criterion of correctness regarding that concept will be the historical proof. This is what happens, for instance, with current investigations of the concept of phlogiston in 17th and 18th century chemistry: the concept is researched today, but nobody intends to incorporate it into today's chemical physics.

In the second case, the situation is quite different: the active use of the concept brings about a fresh correction pattern, as well as the possibility of new nuances of the concept turning up. An example of this second case could be Heidegger's reintroduction of the Greek

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[3] It is true that those limits, when they exist, are usually vague (i.e., they leave room for doubtful cases). However, that does not imply that there is no application criterion for them. Indeed, a doubt about how to apply a criterion can only come up when there is a criterion to doubt.

concept of *aletheia*, under his own philosophical imprint (cf. e.g. In-wood, 1999, pp. 13–15). To the extent that a part of the philosophical community began to use that concept again, and acknowledged Heidegger's use as a pattern to follow, we can say that the concept was given a new life, or that it restarted with modifications to its previous one[4].

2. Meanings without processes

2.1. A conception of meaning that is the polar opposite of the process model is what I shall call the 'conception of meanings as floating ideas'. This conception combines two theses: firstly, meanings are identified with ideas or mental contents (i.e., objects that the human mind is able to produce or apprehend); secondly, such ideas are taken to be self-subsistent (i.e., objects that exist without the need for a mind to grasp them).

The thesis according to which meanings are ideas can be found in the following quotations from Augustine of Hippo and John Locke:

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[4] Applying a similar reasoning, it is incorrect to say that thanks to the Rosetta Stone we came to know what Egyptian hieroglyphics mean. Egyptian hieroglyphics ceased to be meaningful from the moment the linguistic community which used them for genuine communication disappeared. What the Rosetta Stone made it possible to discover was what hieroglyphics *meant* at the time they were used by the Egyptian community. To the extent that these signs have not been used again as genuine communication tools, but only as objects of historical investigation, it is not correct to say that they have been brought back to life. In a similar way, a dried river does not fill with water by investigating how much water used to flow through it in the past; neither an old clothing fashion comes back in vogue by the sheer fact of investigating it now. (Alejandro Villa Torrano suggested me to mention Egyptian hieroglyphics and the Rosetta Stone at this point.)

There is no reason for us to signify something (that is, to give a sign) except to express and transmit to another's mind what is in the mind of the person who gives the sign (Augustine, *De Doctrina Christiana*, 396–427 A.D., Book II, §3);

The use then of Words, is to be sensible Marks of *Ideas*; and the *Ideas* they stand for, are their proper and immediate Signification (Locke, *An Essay Concerning Human Understanding*, 1689, Book III, Ch. 2, §1)[5].

The thesis according to which meanings are self-subsistent entities can be found in the following excerpt from Frege:

[A] sentence *expresses* a thought (Frege, 'Thoughts', 1918, p. 5);

[F]or example the thought we have expressed in the Pythagorean theorem is timelessly true, true independently of whether anyone takes it to be true. It needs no owner. It is not true only from the time when it is discovered; just as a planet, even before anyone saw it, was in interaction with other planets (Frege, 1918, pp. 17–18);

How does a thought act? By being grasped and taken to be true … If, for example, I grasp the thought we express by the theorem of Pythagoras, the consequence may be that I recognize it to be true and, further that I apply it in making a decision, which brings about the acceleration of masses (Frege, 1918, pp. 28–29)[6].

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[5] Italics (and capital letters) were in the original, unless otherwise stated.

[6] As a matter of fact, Frege distinguished between the type of mental content which is idiosyncratic to an individual mind, and the 'universal' mental content, i.e., that which is shared by all minds that have grasped it. He called the former 'idea' (*Vorstellung*), and reserved the term 'thought' (*Gedanke*) for the latter: '[E]very idea has only one owner; no two men have the same idea' (Frege, 1918, p. 15); 'When [a person] grasps or thinks a thought he does not create it but only comes to stand in a certain relation to what already existed – a different relation from seeing a thing or having an idea' (Frege, 1918, p. 18, Note 1); 'Although the thought does not belong with the contents of the thinker's consciousness, there must be something in his consciousness that is aimed at the thought. But this should not be confused with the thought itself' (Frege, 1918, p. 26). This distinction is questionable, inasmuch as we

Dummett has described Frege's position in this respect as mythological, on the basis of three objections: (i) it does not explain how thoughts, being entities of a separate realm of reality, can be about entities of the other realms; (ii) it does not explain how thoughts are grasped by the human mind; (iii) it does not explain, in the end, how thoughts come to be the meanings of our linguistic expressions (Dummett, 1986, pp. 251–252). However, despite the criticisms received, this semantic Platonism continues to be embraced by many contemporary philosophers. A clear example is the following quotation from Rodriguez-Pereyra[7]:

> [F]or the rose to be red it is not required that the proposition that the rose is red should be propounded. But that the rose is red requires that there be something meaningful that can be said or thought, namely the proposition that the rose is red. For if the rose is red, then the proposition that the rose is red is true, and therefore the proposition exists. So, necessarily the rose is red if and only if the proposition that the rose is red is true. And so, that the rose is red requires that the proposition be true no less than that that the proposition is true requires that the rose be red (Rodriguez-Pereyra, 2009, §4).

2.2. Two of the greatest opponents of the theory of meanings as floating ideas have been Wittgenstein,

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lack an explanation of how each thought connects with whatever in the individual consciousness aims at it (an idea, presumably); but leaving this difficulty aside, it seems that the kind of mental content that the theory of meanings as ideas needs to invoke cannot be a content which is idiosyncratic to a particular mind, but one that is shared by all those minds that, by means of language, communicate it to each other.

[7] More recent quotations in this spirit are mentioned in (Picazo, 2014, pp. 721–725).

> The meaning of a word is to be defined by the rules for its use … Two words have the same meaning if they have the same rules for their use (Wittgenstein, *Cambridge Lectures 1932–1935*, 1932–1935, I, §2);
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> [I]f we had to name anything which is the life of the sign, we should have to say that it was its *use* (Wittgenstein, *The Blue and Brown Books*, 1933–1935, p. 4);
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> The psychological processes which are found by experience to accompany sentences are of no interest to us (Wittgenstein, *Philosophical Grammar*, 1932–1934, I, §6),

and Quine:

> Dewey was explicit on the point: 'Meaning … is not a psychic existence; it is primarily a property of behavior' (Quine, 'Ontological relativity', 1968, p. 185 [in reference to J. Dewey, *Experience and Nature*, 1925]);
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> Uncritical semantics is the myth of a museum in which the exhibits are meanings and the words are labels … [T]he naturalist's primary objection to this view is not an objection to meanings on account of their being mental entities, though that could be objection enough. The primary objection persists even if we take the labeled exhibits not as mental ideas but as Platonic ideas or even as the denoted concrete objects. Semantics is vitiated by a pernicious mentalism as long as we regard a man's semantics as somehow determinate in his mind beyond what might be implicit in his dispositions to overt behavior (Quine, 1968, p. 186).

In fact, the process model is mainly inspired by these two authors, although there are important differences between their conceptions and mine. For example, neither Quine nor Wittgenstein sufficiently emphasised the relevance that the interaction with the environment has for the theory of meaning. And neither of the two sufficiently emphasised the process character of meaningfulness, though it is true that the idea of 'use' points to a process.

Moreover, both Wittgenstein and Quine went too far in their dismissal of the relevance of psychological processes for the theory of meaning. Denying that meanings are identical to mental or psychological states does not imply that these type of processes are completely irrelevant for the theory of meaning. The use of wine tasting language, for example, requires a specialisation of the olfactory physiology that the ordinary speaker is not presumed to have. And the fact that the light-dark scale is inapplicable to the meaning of the words 'infrared' and 'ultraviolet', in contrast with what happens to the names of ordinary colours, surely has something to do with the fact that we can perceive ordinary colours, but not infrared or ultraviolet light. Our psychophysiology is part of the interaction process from which the phenomenon of meaning emerges, and its relevance for that process cannot be ruled out beforehand.

Lastly, although Quine was a convinced naturalist, his theory of language does not abound in empirical studies on which to base his theses, or in indications of the type of empirical studies that should be conducted. However, it is rich in armchair disquisitions and thought experiments (such as 'gavagai' and the radical translation), directly focused on introspection, or on the comparison of one's introspective intuitions with those of other researchers. And as far as Wittgenstein is concerned, the methodology that he promoted and followed in his semantic investigation was also eminently analytical[8]. However, if natural language is an empirical phenomenon that emerges from

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[8] 'We are not interested in any empirical facts about language' (Wittgenstein, 1932–1934, I, §30). '[O]ur considerations could not be scientific ones … We must do away with all *explanation*, and description alone must take its place. And this description gets its light, that is to say its purpose, from the philosophical problems. These are, of course, not empirical problems; they are solved, rather, by looking into the workings of our language … not by giving new information, but by arranging what we have always known' (Wittgenstein, *Philosophical Investigations*, 1953, I, §109).

empirical processes, how could empirical research not be relevant for studying it? It is true that the researcher always possesses a first-hand knowledge of her own language, but that is only a practical knowledge (an ability), which by itself does not provide a theoretical explanation of how that language works, and sometimes it makes it even more difficult to find one[9].

In the end, the inclination toward the methodology of logical-introspective analysis appears to be nothing else but a remnant of semantic Platonism. Indeed, only when I think that language is 'in my head', I feel there is no need to look further. On the contrary, under a genuinely empirical approach, that takes meaning to be just another social phenomenon, empirical research appears as the natural tool for studying it[10].

2.3. In perspective, I see the history of the theory of meaning as a succession of stages, through which various layers of complexity have been gradually discovered. In a first stage, the meaning of the word appeared as a self-subsistent and isolated entity – as a solitary heavenly body, moving around in the world of ideas. In a second stage, Frege claimed that the meaning of the word should not be analysed

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[9] In (Picazo, 2015) I point out four places in Quine's work in which his linguistic competence interferes with his semantic research, driving him to inconsistency.

[10] It is true that the story I gave in §1.4 (and to which I will come back in §3.3) is a pure invention. However, that story is not used here as a thought experiment from which to extract a philosophical thesis. The point of that story, indeed, was just to illustrate the type of facts that empirical investigation should help to corroborate – if not with respect to the very primal moment of the appearance of language, at least with respect to the echoes of that primal moment that could be observable in linguistic interactions today.

independently of the sentence in which it appears[11]. Some decades later, alluding to this step taken by Frege, Quine in turn claimed that the unit of analysis should not longer be sentential meaning, but the whole of language, together with the corpus of beliefs held by its users[12]. In a fourth step (overlapping chronologically with the third one), Wittgenstein urged the placing of meaning in the context of the form of life of the linguistic community[13]. And what I am encouraging now is paying attention to the environment in which the linguistic community lives, to the relevance of the interaction with that environment for the fixation of meaning, and to the processual and genuinely empirical character of linguistic meaningfulness as a whole.

In this way, the initial conception of meaning as a perfect (edgeless) sphere has been gradually leading to a much more complex view, in which natural language meaning resembles a puzzle piece, full of corners and protrusions. A piece that has to fit into various puzzles (the sentence, the language, the knowledge, the community, the environment), because only if it fits into them, and only when it is regarded as embedded in them, can we attempt to explain its role in human cognition and communication.

The most difficult part of this change of mentality is, no doubt, the abandonment of semantic Platonism in favour of the social conception of meaning. Indeed, there is such a tension between these two

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[11] It is his celebrated context principle, cf. eg. (Frege, *Foundations of Arithmetic*, 1884, Introduction, p. xxii, and §60).

[12] '…the reorientation whereby the primary vehicle of meaning came to be seen no longer in the term but in the statement. This reorientation, seen in Bentham and Frege…' (Quine, 'Two Dogmas of Empiricism', 1951, §5, p. 39). '[W]hat I am now urging is that even in taking the statement as unit we have drawn our grid too finely. The unit of empirical significance is the whole of science' (Quine, 1951, §5, p. 42).

[13] '[T]o imagine a language means to imagine a form of life' (Wittgenstein, 1953, §19).

viewpoints, there are such differences between their respective consequences, and it is so difficult to shift from one to the other, that this shift amounts to a true change of philosophical paradigm. I believe such a change is taking place now, and I see Wittgenstein and Quine as the two great pioneers of it. Though not even they, burdened by the weight of the Platonic paradigm, were able to bring this change to its final conclusion: indeed, they got carried away by their efforts to escape the Platonic paradigm, adopting a too radical anti-psychologism as a result; and they failed to see that the logical-introspective methodology was much more in tune with Platonism, than with the social conception of language that they were struggling to bring about.

3. Truth and vagueness

3.1. To finish this paper, I would like to point out, by way of illustration, two problems in the philosophy of language in which the application of the process model could help to shed some light. The first of them is vagueness.

Let us take a very simple case, the statement (*s*) 'It's damp in here'. By '*s*' I mean the speech act consisting of uttering the sentence 'It's damp in here' in ordinary circumstances – so that it will reasonably be taken as a declarative speech act, made with the intention of stating that the place in which the conversation is occurring has a damp ambience. Of course, all this presupposes a number of assumptions that, rigorously speaking, should not be made in the absence of a theory that accounts for each of them. But let us pretend that we are in possession of such a theory, for the sake of the argument.

The degree of humidity regarding which a competent speaker is justified in uttering *s* is something that cannot be easily anticipated. This is precisely the kind of datum that linguistic competence does

not enable us to explicate. Indeed, as competent speakers we have the ability to correctly use *s* from our sensorial perception of ambient humidity; but that ability is different from the capability of specifying a numerical threshold corresponding to it. In order to specify such a threshold, we will need a number of things: first of all, we will need a measurement scale for humidity; secondly, we will need a measuring device; and thirdly, we will need to conduct a number of tests on a sufficiently representative sample of speakers. Only then will we be in a position to determine the level of humidity above which a speaker is justified in uttering *s*. And it is at that moment when the problem of vagueness properly appears.

What does vagueness consist in, addressed in these terms? It consists in the fact that not every speaker, not even the same speaker on different occasions, will judge that uttering *s* is justified in exactly the same humidity conditions. The empirical tests will not yield an exact number as the threshold for the justified utterance of *s*, but rather an interval. Moreover, different tests, conducted on different occasions, will yield slightly different intervals too.

What is it that enables us to communicate with one another, despite such differences? It is the precisely the fact that we speakers already take these differences into account, in a tacit way. Indeed, we are prepared to identify doubtful cases – which will approximately coincide with the threshold ranges obtained from the empirical tests. And we are prepared to admit different degrees of assertability for *s* – degrees which will in turn be correlated with the humidity scale itself. The fact that we speakers, statistically considered, behave in this way explains how a statement prototypically vague such as *s* can have a meaning, and how it can be used as a communication tool, despite its vagueness.

3.2. A similar 'mundane' perspective might help us to revise the concept of truth. Indeed, the process model could help us to find a way to release the concept of truth from the metaphysical burden of approaches such as the correspondence theory, without falling into the trivialisation of the identity or the disquotational approach. It is true that we all have, as competent speakers, the ability to determine when a statement of our language is true, assuming that we are in possession of the relevant evidence. But what the process model of meaning should help us to do, then, is to identify distinctive features of the true assertion which go beyond the ascertainment of that ability.

In this respect, the way in which the verification of the truth of an assertion enhances its meaningfulness is quite revealing. Indeed, the verification of an assertion boosts the social process from which its communicative character emerges, and helps us to come full circle, so to speak. While, on the other hand, the discovery that an assertion is false (whether it is a deliberate falsehood, or the speaker was being honest but made a mistake) has an eroding effect on the communication flow. Indeed, the discovery of a falsehood invites a readjustment (a rectification, or an amendment) with respect to that assertion – a readjustment without which linguistic communication will be damaged.

As I have mentioned in (Picazo, 2014, p. 715), if all statements a speaker uttered were false, and we found no way of reinterpreting her words so as to give a reasonable meaning to them, communication with that person would become impossible. In such a case, we would not continue to accept her statements indefinitely. We would not continue to repeatedly get puzzled at her statements, one after another. Rather, we would at some point stop taking seriously what that person was saying, calling into question the communicative value of everything that came out of her mouth.

3.3. Moreover, the transmission of a falsehood (whether it is an intentional falsehood or a simple mistake) is always conducted on the basis of a previous communication convention. This is in contrast to the social ceremony that gives rise to meaningfulness, a ceremony that cannot be anything else but the transmission of truthful information. Indeed, let us go back to the idealised scenario described in §1.4. The moment in which the primitive tribe discovers the communicative utility of the onomatopoeia is precisely when she, who has uttered the onomatopoeia in absence of visible food, leads the group to the food source. The sight of the food and the satiation of hunger by eating it, crucially reinforce the game of uttering the onomatopoeia in order to alert the group that food has been found. The veracity of the alert, then, leads to a positive reinforcement that encourages the repetition of the game, strengthens its limits, and makes the communicative character of the game transparent to everyone.

However, let us suppose that once this game or social convention is already in force, a case takes place in which a member of the group utters the onomatopoeia, but is unable to bring the group to the food source. This will no doubt have an eroding effect on the practice of the game. Indeed, such a case will diminish, on a first level, the particular credibility of that group member, eroding the meaningfulness of the onomatopoeia on her lips. On a second level, and to a lesser degree, such a case will erode the meaningfulness of the onomatopoeia on anybody's lips. And on a third level, and to a minimum degree, the discovery of that rudimentary falsehood may have a discouraging effect on any other communicative utterance.

Of course, characterising truth as something which, upon being corroborated, boosts meaningfulness, and characterising falsehood as something which, upon being corroborated, erodes it, is not a conclusive analysis, because there are many other factors involved in the global process of linguistic communication, that contribute to boost

or to erode meaningfulness in various ways. However, I think that it may be a step in the right direction of taking the notion of truth out of the field of logical analysis, and bringing it closer to the field of empirical research, along with the rest of social sciences.

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